

February 22, 1990

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MEMORANDUM FOR: Samuel J. Collins, Director
 Division of Reactor Projects
 Region IV

THRU: Frederick J. Hebdon, Director
 Project Directorate IV
 Division of Reactor Projects - III,
 IV, V and Special Projects
 Office of Nuclear Reactor Regulation

FROM: George F. Dick, Jr., Project Manager
 Project Directorate IV
 Division of Reactor Projects - III,
 IV, V and Special Projects
 Office of Nuclear Reactor Regulation

SUBJECT: NRR INPUT TO SALP REPORT FOR SOUTH TEXAS PROJECT, UNITS 1
 AND 2, ASSESSMENT PERIOD JANUARY 1, 1989 - JANUARY 31, 1990

Enclosed is the Project Directorate IV input to the South Texas Project, Units 1 and 2, SALP report for the functional areas of Safety Assessment/ Quality Verification, and Engineering/Technical Support. Project Directorate IV evaluation was prepared taking into account the assessments received from various NRR review branches.

/s/
 George F. Dick, Jr., Project Manager
 Project Directorate IV
 Division of Reactor Projects - III,
 IV, V and Special Projects
 Office of Nuclear Reactor Regulation

Enclosures:
 As stated
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WASHINGTON, D. C. 20555

February 22, 1990

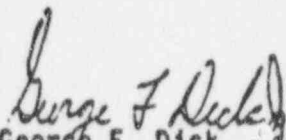
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George F. Dick, Jr., Project Manager
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Safety Assessment/Quality Verification

Analysis

During this period, the full power license was issued for Unit 2. In addition, there were nine (9) amendments issued for Unit 1 and three (3) for Unit 2. Notable amendments were the issuance of combined technical specifications in concert with Unit 2 licensing and the staff approval of the use of Silver-Indium-Cadmium control rods either separately or in combination with the original Hafnium control rods. Two of the license amendments did not involve changes to the technical specifications but were the result of items identified by the licensee's 50.59 program as unreviewed safety questions.

During the period prior to the licensing of Unit 2, there were several issues that surfaced late in the licensing process yet required resolution before licensing. Examples are Nonconforming Molded-Case Circuit Breakers (Bulletin 88-10) and Pressurizer Surge Line Thermal Stratification (Bulletin 88-11). The licensee committed the resources necessary to address the issues and the technical approaches were sound. Further, there was frequent communication initiated by the licensee to determine what information if any would be required by the staff. Consistent management involvement was clear.

With regard to the license amendments, the licensee's submittals consistently showed a clear understanding of the safety aspects of the technical issues. In those instances where additional information was requested, the licensee's answers were responsive to the questions and were supplied within an acceptable time frame.

The licensee has taken a very conservative approach in the implementation of 10 CFR 50.59 screening criteria. Three of the requests for license amendments submitted during this period were developed as the result of 50.59 review determinations of unresolved safety questions.

Generally, licensee submittals are made sufficiently ahead of the required date such that the staff can review them as part of their regularly scheduled work. An exception to this is the recent schedular relief request from certain Appendix J, Type C leak rate tests.

During this rating period, the licensee's responsiveness to NRC Bulletins and Generic Letters continued to be technically complete and generally timely. As noted earlier, responses to Bulletin 88-10 and 88-11 were particularly thorough, and in point of fact, the licensee was the lead plant in resolving the issues raised by the staff in Bulletin 88-11. The licensee responded to a total of 6 bulletins and 12 generic letters. Generic Letter 89-21 required licensees to provide the status of implementation of unresolved safety issues. In addition to the acceptability of the response with respect to accuracy and timeliness, the backup records retained by the licensee for each item were well organized and traceable.

The licensee decided to conduct safety system functional inspections (SSFIs) of key safety systems and in December 1990, completed an inspection of the essential cooling water system for Unit 2. It was done by a contractor with experience in conducting such reviews. The establishment of a program of SSFIs is considered a positive indication of management attitude towards safety.

Analysis

On November 28, 1989, the No. 22 emergency diesel generator (EDG) at Unit 2 experienced a catastrophic failure which delayed restart of the unit by about 6 weeks. The licensee handled the event investigation and EDG repairs in a well-organized and structured manner. Initially, access to the EDG room was controlled so that the details of the event could be recorded in place. The licensee recognized the need to involve the vendor and supporting contractor personnel in establishing the root cause and in repairing the EDG. Subsequent repairs were done effectively, adequately controlled, and well-documented.

SALP INPUT

Facility Name: South Texas Project, Units 1 and 2

Summary of Review Activities

The review activity consisted of assuring the adequacy of the amended Technical Specification for assuring the structural integrity of STP containments. The interaction with the licensee can be characterized as low.

Narrative Discussion of Licensee Performance - Engineering/Technical Support

Except for a few technical clarifications, the licensee submittal was complete with justifications for the adoption of the proposed requirements in the Technical Specification. The licensee demonstrated strong technical competence in providing this justification.

Reviewer - H. Ashar

Date - 2/9/90

B/24

SALP INPUT
RADIATION PROTECTION BRANCH
SOUTH TEXAS TS REVISION
FUEL ENRICHMENT
TAC NOS. 76085 and 76086

Facility Name: South Texas Units 1 and 2

SUMMARY OF REVIEW ACTIVITIES

HP&L requested TS amendments to increase its allowable initial fuel enrichment from 3.5 percent U-235 to 4.5 percent U-235. PRPB reviewed this request and approved it.

NARRATIVE DISCUSSION OF LICENSEE PERFORMANCE - RADIOLOGICAL CONTROLS

HP&L has chosen a very inefficient method to process a relatively innocuous TS amendment. It requested a change in fuel enrichment only, not burnup, at this time. Burnup will now have to be addressed later, when it could have been just as easily addressed now. This is an inefficient use of staff and licensee resources.

AUTHOR: James A. Martin

DATE: March 22, 1990

B/35

ENCLOSURE 2

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

FACILITY NAME South Texas Project, Units 1 and 2

SUMMARY OF REVIEW

The Reactor Systems Branch, DST, reviewed the request by Houston Lighting and Power Company to modify the South Texas Technical Specifications. The change would allow Westinghouse fuel with a maximum U-235 enrichment of 4.5 w/o to be stored in the fresh fuel storage racks. The staff finds the change acceptable.

NARRATIVE DISCUSSION OF LICENSEE PERFORMANCE - SAFETY ASSESSMENT/QUALITY
VERIFICATION

Review of the submittal indicated that the licensee adequately addressed the technical aspects of the issue. The licensee was responsive to the staff questions and was sensitive to the safety significance placed on the issues.

AUTHOR: L. Kopp
DATE: 4/2/90

B/26

ENCLOSURE 2

SALP INPUT

FACILITY NAME: South Texas Project Electric Generating Station
Units 1 and 2

SUMMARY OF REVIEW:

This review involved the safety impact of the proposed revision of the South Texas Project Electric Generating Station Units 1 and 2 Technical Specifications to eliminate the shutdown requirements associated with the loss of one pressurizer level channel. The proposed modifications were reviewed by SICB/DST/NRR during March 1990. The proposed modifications were found to be acceptable.

**NARRATIVE DISCUSSION OF LICENSEE PERFORMANCE FUNCTIONAL
AREA - ENGINEERING/TECHNICAL SUPPORT:**

The licensee's submittal was adequate to clarify the pressurizer level instrumentation requirements. The licensee explained and provided information as required. The licensee demonstrated that they were familiar with the instrumentation and the associated technical specification requirements.

Author: Barry S. Marcus
Date: 03/30/90

B/S7.

SALP INPUT

FACILITY NAME South Texas Project

SUMMARY OF REVIEW ACTIVITIES

Cooper-Bessemer submitted a report containing the failure analysis of the connecting rod which fractured in Unit 22, KSV Diesel Generator at the South Texas Plant. Based on our review we find the results acceptable.

NARRATIVE DISCUSSION OF APPLICANT'S PERFORMANCE-FUNCTIONAL AREA ENGINEERING/
TECHNICAL SUPPORT.

The failure analyses performed by the licensee/manufacture is thorough, in-depth and technically sound. Cooper-Bessemer's response to staff request for additional information was outstanding.

AUTHOR J. Rajan

DATE May 17, 1990

B/28

Enclosure 2

SPLB SALP INPUT

Plant Name: South Texas Project Electric Generating Station, Units 1 and 2
SER Subject: Technical Specifications for Main Feed Isolation Valves
TAC Nos.: 76924 and 76925

Summary of Review/Inspection Activities

Reviewed proposed technical specifications for main feedwater isolation valves (MFIVs).

Narrative Discussion of Licensee Performance - Functional Area

The author reviewed the licensee's submittal regarding proposed technical specifications for MFIVs and found them to be acceptable as proposed.

Author: M. Wagner

Date: July 9, 1990

B/29

SALP INPUT

**South Texas Project Electric Generating Station
Units 1 & 2**

Summary of Review Activities

Houston Light & Power Company (HL&P) submitted by letter dated December 18, 1989, and revised by letter dated July 30, 1990, changes to the Administrative Controls Section of the Technical Specifications for South Texas Units 1 & 2. These changes were with respect to the membership of the Plant Operations Review Committee and the Nuclear Safety Review Board. We reviewed these changes and provided an SER to the Project Manager.

**Narrative Discussion-Functional Area-Safety
Assessment/Quality Verification**

HL&P's submittal dated December 18, 1989, contained one change that was unacceptable. This area of unacceptability was discussed with the licensee. Based on this discussion, a revised change request was submitted by letter dated July 30, 1990. We found the requested changes, as revised by the letter dated July 30, 1990, acceptable.

**Author - Frederick R. Allenspach
Date - August 22, 1990**

B/S

SALP INPUT

FACILITY NAME: South Texas Units 1 & 2

SUMMARY OF REVIEW ACTIVITIES

The staff reviews the probability results of licensee's turbine missile probability calculation. The inspection intervals for each of the low pressure turbine are reviewed with respect to the turbine missile probability. The inspection and maintenance activities are reviewed to determine their scope and depth. The staff also reviews whether the licensee satisfied the turbine reliability requirement criteria as specified in the South Texas SER, NUREG-0781.

NARRATIVE DISCUSSION OF LICENSEE PERFORMANCE-FUNCTIONAL AREAENGINEERING/TECHNICAL SUPPORT

The licensee has capability in calculating turbine missile probability and is prompt in responding to the staff's request for additional information.

SAFETY ASSESSMENT/QUALITY VERIFICATION

The licensee's calculation of turbine missile generation probability follows the Westinghouse method which the staff has approved. The turbine inspection intervals are based on the turbine missile generation probability and they are acceptable.

AUTHOR: John Tsao, EMCB/DET
x-20702

B/32

ENCLOSURE 2

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

FACILITY NAME: South Texas Project Electric Generating
Station Units 1 and 2

SUMMARY OF REVIEW/INSPECTION ACTIVITIES

The staff reviewed the proposed Technical Specification change in which the licensee has requested to eliminate the requirement to shutdown the plant if one of the four steam generator level narrow-range channels is inoperable.

NARRATIVE DISCUSSION OF LICENSEE PERFORMANCE - FUNCTIONAL AREA

The licensee's submittal was not complete and did require a phone call to clarify the transmitter identification. The response was provided promptly.

Author: D. Nguyen, (SICB/DST)

Date: 12/7/90

ENCLOSURE 2

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

FACILITY NAME: South Texas Project Electric Generating
Station Units 1 and 2

SUMMARY OF REVIEW/INSPECTION ACTIVITIES

The staff reviewed the proposed Technical Specification change in which the licensee has requested to eliminate the requirement to shutdown the plant if one of the four Containment Pressure channels is inoperable.

NARRATIVE DISCUSSION OF LICENSEE PERFORMANCE -FUNCTIONAL AREA

The licensee's submittal was not complete and did require a phone call to clarify the transmitter identification. The response was provided promptly.

Author: D. Nguyen

Date: 12/26/90

B/B4

ENCLOSURE 2

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

FACILITY NAME: South Texas Project Electric Generating
Station Units 1 and 2

SUMMARY OF REVIEW/INSPECTION ACTIVITIES

The staff reviewed the proposed Technical Specification change in which the licensee has requested to change Table 3.3-3 Action 20.b.

NARRATIVE DISCUSSION OF LICENSEE PERFORMANCE - FUNCTIONAL AREA

The licensee's submittal was complete and did not require any contact with the licensee by the staff for clarification.

Author: D. Nguyen

Date: 12/18/90

B/35

ENCLOSURE 2

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

FACILITY NAME: South Texas Project Electric Generating
Station Units 1 and 2

SUMMARY OF REVIEW/INSPECTION ACTIVITIES

The staff reviewed the proposed Technical Specification change in which the licensee has requested to eliminate the requirement to shutdown the plant if one of the four Steamline Pressure channels is inoperable.

NARRATIVE DISCUSSION OF LICENSEE PERFORMANCE - FUNCTIONAL AREA

The licensee's submittal was not complete and did require a phone call to clarify the transmitter identification. The response was provided promptly.

Author: D. Nguyen

Date: 12/20/90

SPLB SALP INPUT

Plant Name: South Texas Project, Units 1 and 2
SER Subject: Application to Amend Licenses NPF-76 and NPF-80
TAC Nos.: 73795 and 73796

Summary of Review/Inspection Activities

This is a review of an application to amend the licenses of South Texas Project, Units 1 and 2 to reflect revisions to LOCA and fuel handling dose analysis.

Narrative Discussion of Licensee Performance - Functional Area

The licensee's submittal was sufficiently thorough and well organized, therefore the often, request for additional information was not necessary. There was no design modification request and the staff found the proposed license amendments acceptable.

Author: H. Walker

Date: January 30, 1991

B/37

Docket Nos.: 50-498/499

SALP REPORT

LICENSEE: Houston Lighting & Power

REVIEWER: Jai Rajan

FUNCTIONAL ACTIVITY: Engineering/Technical Review

FACILITY NAME: South Texas Project Units 1 and 2

SUMMARY OF REVIEW ACTIVITIES:

The licensee performed a root cause analysis of a fuel injection pump failure in standby diesel generator #11 at the South Texas Project. The review is based on licensee's submittal and telephone conferences. The staff concurs with the licensee's findings.

NARRATIVE DISCUSSION OF APPLICANT'S PERFORMANCE FUNCTIONAL AREA ENGINEERING
TECHNICAL SUPPORT

The licensee performed a thorough failure analysis of the subject event. On their initiative they contacted other users of the Cooper-Bessemer KSV-16 and KSV-20 engines in the course of their investigations. Their discussions with the staff were based on well documented information.

BBS

SPLB SALP INPUT

Plant Name: South Texas Project Electric Generating Station, Units 1 and 2
SER Subject: Technical Specification Change to Allow Use of Mass Point Method
to Calculate Containment Integrated Leakage Rates per Appendix J
TAC Nos.: 79842 and 79843

Summary of Review/Inspection Activities

The licensee requested a TS change to allow use of the mass point method to calculate containment integrated leakage rates.

Narrative Discussion of Licensee Performance - Functional Area

The proposed change is in accordance with Appendix J to 10 CFR Part 50. The licensee's justification was correct and the staff agreed with it without further comment.

Author: J. Pulsipher

Date: March 21, 1991

ATTACHMENT 2

SALP Input - Amended Request for Relief for
Preservice Inspection, Section XI Code Requirements -
STP 1&2 SALP INPUT

6/28/91

FACILITY NAME: South Texas Project Electric Generating Station, Unit 2

DOCKET NO.: 50-499

TAC NO.: 74557

LICENSING ACTIVITY: Review of the licensee's determination of impracticality of certain ASME Code Section XI preservice inspection requirements and its revised request for relief from code requirements for the preservice inspection.

REVIEWERS: D. E. Smith, NRR,
B. Brown, INEL

SUMMARY OF REVIEW/INSPECTION ACTIVITIES

This safety evaluation completes the NRC staff review of the licensee's determination of the impracticality of meeting certain Section XI ASME Code preservice inspection requirements. The licensee had revised a previously granted request for relief. The revision concerned physical limitations on components which had been replaced. This concludes the Materials and Chemical Engineering Branch's effort under TAC 74557.

NARRATIVE DISCUSSION OF LICENSEE PERFORMANCE - FUNCTIONAL AREA

The licensee's understanding of safety and regulatory issues appear adequate. Approaches are viable, and are generally sound. Responses are generally timely. NRC initiatives and policies are implemented within an acceptable time frame.

RATING: Category 1

AUTHOR: D.E. Smith

DATE: 6/21/91

B/40