

# The Light company

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October 31, 1985  
ST-HL-AE-1500  
File No.: G9.17

Mr. George W. Knighton, Chief  
Licensing Branch No. 3  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

South Texas Project  
Units 1 and 2  
Docket Nos. STN 50-498, STN 50-499  
Responses to DSER/FSAR Items  
On Chapter 4

Dear Mr. Knighton:

The attachment enclosed provides STP's response to Draft Safety Evaluation Report (DSER) or Final Safety Analysis Report (FSAR) items.

The item numbers listed below correspond to those assigned on STP's internal list of items for completion which includes open and confirmatory DSER items, STP FSAR open items and open NRC questions. This list was given to your Mr. N. Prasad Kadambi on October 8, 1985 by our Mr. M. E. Powell.

The attachment include mark-ups of FSAR pages which will be incorporated in a future FSAR amendment unless otherwise noted below.

The items which are attached to this letter are:

<u>Attachment</u>	<u>Item No.*</u>	<u>Subject</u>
1	Q492.002N-1	Loose Parts Monitoring System

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PDR ADOCK 05000498  
E PDR

\* Legend

D - DSER Open Item  
F - FSAR Open Item

C - DSER Confirmatory Item  
Q - FSAR Question Response Item

L1/DSER/all

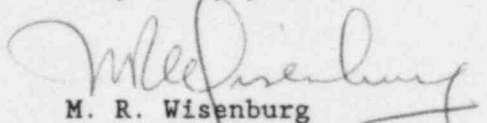
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If you should have any questions concerning this matter, please contact Mr. Powell at (713) 993-1328.

Very truly yours,

  
M. R. Wisenburg  
Manager, Nuclear Licensing

REP/vmq

Attachments: See above

L1/DSER/all

cc:

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Revised 9/25/85

Question 492.02N

Regulatory Guides 1.133, Revision 1 and 1.70, Revision 3 require that FSAR Section 4.4.6 contain a description of the Loose Parts Monitoring System (LPMS) which will be installed at South Texas Units 1 & 2. The information that should be supplied is:

- (1) a description of the monitoring equipment including sensor locations;
- (2) a description of how alert levels will be determined, including sources of internal and external noise, diagnostic procedures used to confirm the presence of a loose part, and precautions to ensure acquisition of quality data;
- (3) a description of the operation program, including signature analysis during startup, normal containment environment operation, the seismic design, and system sensitivity;
- (4) a detailed discussion of the operator training program for operation of the LPMS, planned operating procedures, and record keeping procedures;
- (5) a report from the applicant which contains an evaluation of the system for conformance to Regulatory Guide 1.133; and,
- (6) a commitment from the applicant to supply a report describing operation of the system hardware and implementation of the loose part detection program.

Response

- (1) A description of the monitoring equipment is provided in Section 4.4.6.4.
- (2) A description of how alert levels will be determined is provided in Section 4.4.6.4.
- (3) <sup>see attachment</sup> ~~A description of the operation program will be provided in mid 1985~~
- (4) Licensed operators (including licensed supervisors) are presented a lecture (approximately 2 hours in length) on the Vibration and Loose Parts Monitoring System.

This lecture presents the following:

- Function and description of operation of the system,
- Function and description of major components of the system, and
- Controls and indication associated with the system.

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Response (Continued)

Operators are provided with objectives which identify what knowledge they should gain from the lecture and are examined on these objectives with minimum passing grade of 70 percent.

Following the classrooms training, operators should have sufficient knowledge of the system and its operation to be able to safely follow plant operating procedures or system operating instructions which address indications or alarms associated with the Vibration and Loose Parts Monitoring System. This training should allow operators to identify when the system has identified a vibration or loose parts problem, relate that indication to other plant indications, initiate actions (if necessary) to maintain the plant in a safe condition, and notify engineering for a detailed analysis of the vibration or loose part.

For practical experience with the operation of the system, current operators will be involved with the plant startup testing and operation during establishment of baseline data for the system. After commercial operation, operators will have practical factors associated with operation of the system during On-The-Job training as necessary to ensure that operators are able to conduct applicable procedures.

- (5) The conformance of the Loose Parts Monitoring System (LPMS) to Regulatory Guide (RG) 1.133 has been provided in Section 4.4.6.4 and Table 3.12-1.
- (6) The information provided or to be provided in items 1-5 includes sufficient details to satisfy the requirements of RG 1.70 and Standard Review Plan (SRP) 4.4 (Rev. 1 - July 1981). HL&P should not be required to provide an additional report. Note that HL&P will not have any operating experience to report until some time after the STP units are in operation.

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- (5) a report from the applicant which contains an evaluation of the system for conformance to Regulatory Guide 1.133; and,
- (6) a commitment from the applicant to supply a report describing operation of the system hardware and implementation of the loose part detection program.

Response to Part (3)

The LPMS will be used to generate baseline signatures for all channels at center frequencies of 25 HZ, 250 HZ, 2.5 KHZ, and 25 KHZ during initial startup testing, at reactor power levels of approximately 30%, 50%, 75%, and 100%. During reactor startups following breaching of the RCS or steam generators and in instances of automatic LPMS actuation additional signatures will be obtained for comparison with previous signatures to detect changes in amplitude or frequency.

Information concerning normal containment environment operation, seismic design, and system sensitivity is provided in FSAR section 4.4.6.4.