

The Light company

Houston Lighting & Power P.O. Box 1700 Houston, Texas 77001 (713) 228-9211

October 24, 1985

ST-HL-AE-1400

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; Boron Concentration

Dear Mr. Knighton:

The attachments enclosed provide 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 attachments 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	Q440.33	Boron Concentration

* Legend

D - DSER Open Item
F - FSAR Open Item

C - DSER Confirmatory Item
Q - FSAR Question Response Item

LI/DSER/t

8511010286 851024
PDR ADOCK 05000498
E PDR

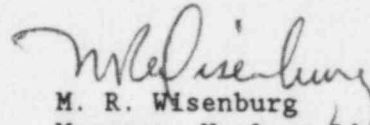
Boo1
11

Houston Lighting & Power Company

ST-HL-AE-1400
File No.: G9.17
Page 2

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

JSP/b1

Attachments: See above

L1/DSER/t

cc:

Hugh L. Thompson, Jr., Director
Division of Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Robert D. Martin
Regional Administrator, Region IV
Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

N. Prasad Kadambi, Project Manager
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, MD 20814

Claude E. Johnson
Senior Resident Inspector/STP
c/o U.S. Nuclear Regulatory
Commission
P.O. Box 910
Bay City, TX 77414

M.D. Schwarz, Jr., Esquire
Baker & Botts
One Shell Plaza
Houston, TX 77002

J.R. Newman, Esquire
Newman & Holtzinger, P.C.
1615 L Street, N.W.
Washington, DC 20036

Director, Office of Inspection
and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

E.R. Brooks/R.L. Range
Central Power & Light Company
P.O. Box 2121
Corpus Christi, TX 78403

H.L. Peterson/G. Pokorny
City of Austin
P.O. Box 1088
Austin, TX 78767

J.B. Poston/A. vonRosenberg
City Public Service Board
P.O. Box 1771
San Antonio, TX 78296

Brian E. Berwick, Esquire
Assistant Attorney General for
the State of Texas
P.O. Box 12548, Capitol Station
Austin, TX 78711

Lanny A. Sinkin
3022 Porter Street, N.W. #304
Washington, DC 20008

Oreste R. Pirfo, Esquire
Hearing Attorney
Office of the Executive Legal Director
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Charles Bechhoefer, Esquire
Chairman, Atomic Safety &
Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dr. James C. Lamb, III
313 Woodhaven Road
Chapel Hill, NC 27514

Judge Frederick J. Shon
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Mr. Ray Goldstein, Esquire
1001 Vaughn Building
807 Brazos
Austin, TX 78701

Citizens for Equitable Utilities, Inc.
c/o Ms. Peggy Buchorn
Route 1, Box 1684
Brazoria, TX 77422

Docketing & Service Section
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555
(3 Copies)

Advisory Committee on Reactor Safeguards
U.S. Nuclear Regulatory Commission
1717 H Street
Washington, DC 20555

Revised 9/25/85

Question 440.33N

- a. Table 5.4 A-1 "Compliance Comparison with BTP RSB 5-1" states that during cold shutdown boron sampling is not required. Will boronometers be used for boron concentration measurements, and if so, are they safety grade? We consider periodic boron concentration measurements necessary, particularly if the plant is in natural circulation.
- b. Table 5.4 A-1, Item V, indicates that "test data and analysis for a plant similar in design to STP will verify adequate mixing and cooldown under natural circulation conditions." State which plant test would be utilized, and justify why the plant is similar to the STP design, considering possible differences in core and RCS design, Tav_g, upper head volume and temperature, and other pertinent parameters.

Response*Insert A* ↘

- a) The response will be provided in September 1985.
- b) South Texas and Diablo Canyon Unit 1 have been compared in detail to ascertain any differences between the two plants that could potentially affect natural circulation flow and attendant boron mixing. Because of the similarity between the plants, it was concluded that the natural circulation capabilities would be similar. Therefore, the results of prototypical natural circulation cooldown tests conducted at Diablo Canyon will be representative of the capability at South Texas.

The general configuration of the piping and components in each reactor coolant loop is the same in both South Texas and Diablo Canyon. The elevation head represented by these components and the system piping is similar in both plants.

Insert A

ATTACHMENT
ST-HL-AE-
PAGE 2 OF 2

Response:

STP can periodically measure boron concentration by use of the Post Accident Sampling System (PASS). (See FSAR Section 9.3.2) The "PASS" panel is provided back-up power from the highly reliable TSC Diesel. This should be available in the event of a Loss of Offsite Power.