

# The Light company

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

May 15, 1984  
ST-HL-AE-1092  
File No.: G3.8/N18.3/M11.4

Mr. Darrell G. Eisenhut, Director  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

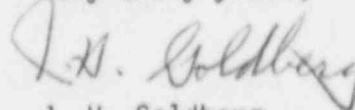
Dear Mr. Eisenhut:

South Texas Project  
Units 1 & 2  
Docket Nos. STN 50-498, STN 50-499  
"Automatic Trip of Reactor Coolant Pumps"  
Generic Letter No. 83-10c

On February 22, 1983, Houston Lighting & Power Company (HL&P) received a letter from your office dated February 8, 1983, in which HL&P was requested to submit a schedule and plans for resolving TMI Action Item II.K.3.5, "Automatic Trip of Reactor Coolant Pumps". The attached response and our letters of August 31, 1983 and December 28, 1983, complete our response to your letter.

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

Very truly yours,



J. H. Goldberg  
Vice President  
Nuclear Engineering & Construction

JHG/DJH/mpg  
Attachment: GL 83-10c Response

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Houston Lighting & Power Company

May 15, 1984  
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File Number: G3.8/N13.3/M11.4  
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Brazoria, TX 77422

Revised 04/03/84

South Texas Project  
Units 1 & 2  
Generic Letter 83-10c Response

As described in our letter of December 28, 1983, Westinghouse and the Westinghouse Owners Group (WOG), of which HL&P is a member, performed a study to develop reactor coolant pump (RCP) trip criteria that would provide adequate indication to the operator to trip the RCPs for small break LOCAs and allow continued operation of the RCPs for steam generator tube rupture (SGTR) and other non-LOCA events.

The criteria developed by the WOG, to respond to the generic aspects of Section I.1 and I.3 of Generic Letter (GL) 83-10c, have been incorporated in the WOG Emergency Response Guidelines (ERGs), revision 1, which were transmitted to the NRC by WOG letter OG-111, dated November 30, 1983. The WOG report, entitled "Evaluation of Alternate RCP Trip Criteria", documenting the generic applicability of the WOG guidelines, was transmitted to the NRC by WOG letter OG-110, dated December 1, 1983. HL&P has reviewed this WOG report and has determined that it is applicable to STP. The guidance of the WOG ERGs will be incorporated into the South Texas Project (STP) emergency operating procedures (EOPs). The specific RCP trip criterion to be used by STP will be identified in the STP EOPs.

The plant specific information required by Section I.1 and I.3 of GL 83-10c was provided by our letter of December 28, 1983. The justification of a manual RCP trip, in response to Section I.2 of GL 83-10c, is as follows:

- i) The WOG report entitled "Justification of Manual RCP Trip for Small Break LOCA Events", transmitted to the NRC by WOG letter OG-117, dated March 9, 1984, presented a generic verification for the WOG that predicted LOCA transients presuming a 2 minute delay in RCP trip following onset of RCP trip criteria conditions, do not differ significantly from those presented in Safety Analysis Reports for Westinghouse plants. An HL&P review has confirmed the applicability of this report to STP. Thus, the Safety Analysis Report for STP, Section 15.6.5, demonstrates compliance with Section I.2a requirements and 10CFR50.46.
- ii) Westinghouse has performed most probable, best estimate analyses that demonstrate, generically, compliance with the guidelines presented in Section I.2b of GL 83-10c. The analyses are presented in the WOG Report, "Justification of Manual RCP Trip for Small Break LOCA Events", identified above. These analyses identify that the minimum time available for operator action for the complete range of LOCA break sizes significantly exceeds the value (10 minutes) contained in draft ANSI Standard N660. These best estimate analyses demonstrate that for excessive clad temperature concerns, the RCPs may be allowed to operate throughout a small break LOCA event. The applicability information presented with the analyses in the generic report affirms the applicability of these analyses to STP. HL&P concurs with this information.

Therefore, taken together, the two WOG reports described above justify that manual RCP trip is acceptable for STP when the RCP trip set point criterion developed with the guidance of revision 1 of the WOG ERGs is in use. The WOG report "Justification of Manual RCP Trip for Small Break LOCA Events" also demonstrates that no additional contingency emergency procedures are required to address the scenarios which may follow a missed RCP trip setpoint.

The transmittals described above, in conjunction with our letter of December 28, 1983, constitutes the STP response to NRC Generic Letter 83-10c. The implementation of the STP EOPs incorporating the guidance of revision 1 of the WOG ERGs, with an appropriate RCP trip setpoint specified, resolves all issues associated with TMI Action Item II.K.3.5.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter

Houston Lighting & Power  
Company, et al.,

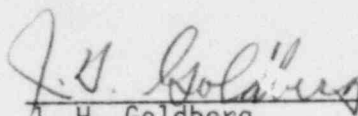
South Texas Project  
Units 1 and 2

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Docket Nos. 50-498  
50-499

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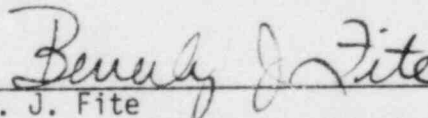
J. H. Goldberg, being duly sworn, hereby deposes and says that he is Vice President, Nuclear Engineering and Construction of Houston Lighting & Power Company; that he is duly authorized to sign and file with the Nuclear Regulatory Commission the attached response to NRC Generic Letter 83-10c; that he is familiar with the content thereof; and that the matters set forth therein are true and correct to the best of his knowledge and belief.



J. H. Goldberg  
Vice President  
Nuclear Engineering and Construction

STATE OF TEXAS §  
§  
COUNTY OF HARRIS §

Subscribed and sworn to before me, a Notary Public in and for Harris County, Texas this 15<sup>th</sup> day of May, 1984.



B. J. Fite  
Notary Public in and for the  
State of Texas

My commission expires

Notary Public

State of Texas

My Comm

10/17/84

W2/NRC1/q