

# The Light company

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June 14, 1985  
ST-HL-AE-1270  
File No.: G12.240

Mr. Robert D. Martin  
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Nuclear Regulatory Commission  
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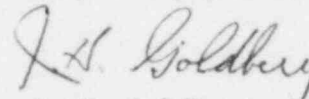
South Texas Project  
Units 1 & 2  
Docket Nos. STN 50-498, STN 50-499  
Final Report Concerning  
Diesel Generator Fuel Storage Capacity

Dear Mr. Martin:

On May 16, 1985 Houston Lighting & Power notified the Nuclear Regulatory Commission of an item, pursuant to 10CFR50.55(e), concerning the South Texas Project's onsite diesel generator fuel storage capacity. Enclosed, please find our Final Report on this item.

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

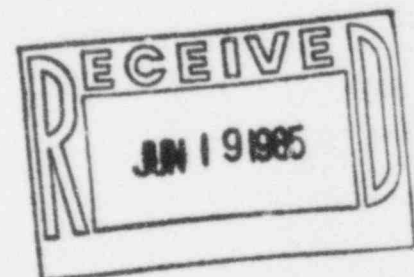
Very truly yours,



J. H. Goldberg  
Group Vice President, Nuclear

JSP/as

Attachment: Final Report Concerning  
Diesel Generator Fuel Storage Capacity



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South Texas Project  
Units 1 & 2  
Docket Nos. STN 50-498, STN 50-499  
Final Report Concerning  
Diesel Generator Fuel Storage Capacity

I. Summary

On May 16, 1985 Houston Lighting and Power (HL&P) notified the NRC, pursuant to 10CFR50.55(e), of an item regarding the diesel generator fuel oil storage tanks. The size of these tanks was based on the engine consumption of 5-6 gpm. The engine-driven fuel pump, however, actually uses 11 gpm making it necessary for the excess to be returned to the storage tank using a non-seismic return line. Following a seismic event, the return line may not be available and the seven-day fuel storage requirement specified in the system safety design bases would not be met.

II. Description of Deficiency

The system safety design bases require that onsite diesel generator fuel oil storage system capacity be sufficient to operate each diesel generator following the limiting design basis accident for seven days. Bechtel's design of the fuel oil and transfer system requires a storage tank capacity of approximately 67,000 gallons for each diesel based on the fuel consumption of the engine (approximately 5-6 gpm). The engine-driven fuel pump, however, actually removes fuel oil from the storage tank at a rate of approximately 11 gpm. The excess fuel is routed to a drain tank and subsequently pumped back to the storage tank. In order to meet the seven day fuel supply, the excess fuel oil must be returned to the storage tank. However, the drain tank, transfer pump and piping are not safety class and are not seismic Category I. Therefore, after a design basis seismic event, the return line cannot be assumed to be available. This would result in only a 4 day fuel oil supply per diesel generator.

III. Corrective Action

The design will be changed to return the excess fuel to the storage tank via seismic Category I, Safety Class 3 piping.

The design changes on the P&ID will be complete by July 1, 1985 and the FSAR will be revised accordingly.

IV. Recurrence Control

This particular deficiency occurred in a specialized system, unlike any other in the plant. For this reason, no recurrence control is considered necessary to prevent a similar occurrence.

V. Safety Analysis

Although an alternate source of fuel oil is available (Auxiliary Fuel Oil Storage Tank), a seismic Category I supply of fuel oil is not available to replenish the diesel generator fuel oil storage tanks.

Were this situation to remain uncorrected the current design would not have provided for a full seven day supply of fuel oil for the diesel generators from a seismic Category I source as committed to in the FSAR.