

# The Light company

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August 5, 1981  
AC-HL-AE-522



Mr. Harold R. Denton  
Office of Nuclear Reactor Regulation  
Nuclear Regulatory Commission  
Washington, DC 20555

Dear Mr. Denton:

Allens Creek Nuclear Generating Station  
Unit 1  
Docket No. 50-466

This letter modifies the submittal of Houston Lighting and Power Company addressing Item II.K.2.16, Impact of RCP Seal Damage Following Small - Break LOCA with Loss of Offsite Power, of NUREG-0718. The attached section (e) should be inserted on page 0-8 of Appendix 0 to the ACNGS PSAR. This change will be formally submitted by a PSAR Amendment in the near future.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'J. H. Goldberg'.

J. H. Goldberg  
Vice President  
Nuclear Engineering and Construction

LJK/bai

cc: (w/attachment)  
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The results of this leakage analysis show that, even with gross degradation of the seals, the leakage would be less than 70 gallons per minute. This amount of leakage is within normal reactor fluctuations and the normal vessel water level control systems will easily compensate for it. Also, 70 GPM is much less than the bounding values of loss-of-coolant accident analyses, hence there are no adverse effects on LOCA analyses.

(c) Completion Date

The study is complete, and was transmitted to the NRC in Reference 1.

(d) Program for Implementation of Results

The study concluded that the leakage through a grossly failed RCP seal is of no consequence to any of the LOCA analyses. Therefore, no changes are required to implement the results.

*Insert  
(e) →*

REFERENCES

1. NEDO-24083, "Recirculation Pump Shaft Seal Leakage Analysis", November 1978. (Licensing Topical Report)

e) Need For Additional Study

Even though the referenced analysis has shown that normal plant systems can easily handle the estimated consequences of a complete loss of cooling to the Recirculation pump seals, the desirability of maintaining seal integrity by ensuring continued cooling is recognized. A loss of off-site power is one potential sequence that could result in loss of all cooling water to the recirculation pump seals by tripping the CRD and EPCCW pumps. For this reason, one of the EPCCW pumps and an associated Open Loop Cooling Water pump, have been designed to be powered from the Balance of Plant diesel generator, a highly-reliable on-site emergency power source. This will assure the automatic availability of a cooling water supply to the recirculation pump seals, adequate to maintain seal integrity in the event of a loss of off-site power.

Further evaluations will be conducted to determine the need for and methods of providing increased protection for the recirculation pump seals. The cooling water system and the power source for the cooling water system following a loss of off-site power will be evaluated.

The results of this evaluation will be available within 2 years of the issuance of the Allens Creek Construction Permit. The resolution of this item will be factored into the final design of Allens Creek and will be submitted in the ACNGS FSAR.