

The Light company

Houston Lighting & Power

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April 12, 1989
ST-HL-AE-3054
File No.: G02.04, G03.07
10CFR2.201

Director, Office of Enforcement
U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

South Texas Project Electric Generating Station
Unit 1
Docket No. STN 50-498
Reply to Notice of Violation and Proposed
Imposition of Civil Penalty - Enforcement Action 89-01

- (1) Notice of Violation EA 89-01, March 17, 1989
- (2) Statement of Completion of request for Low Power Operating License, May 26, 1987, ST-HL-AE-2149.
- (3) Enforcement Issue Relative to ECCS Sump Vortex Breakers, March 17, 1989, ST-HL-AE-3035
- (4) ECCS Sump Vortex Breakers, March 28, 1989, ST-HL-AE-3044

This is in response to the Notice of Violation and Proposed Imposition of Civil Penalty (NOV) transmitted by Reference 1. As discussed further below, Houston Lighting & Power Company (HL&P) admits that the failure to install vortex suppressors in the containment sump prior to operation of Unit 1 was the result of a violation of NRC requirements. However, HL&P requests that NRC reconsider its decision to impose a civil penalty in this case. Proper application of the NRC Enforcement Policy would result in a determination that escalated enforcement is not appropriate, or at a minimum, that the proposed civil penalty should be mitigated.

In addition to requesting reconsideration of the civil penalty, HL&P would like to assure that there is no misunderstanding about HL&P's commitment to providing complete and accurate information to the NRC. Reference 1 expressed concern that my certification of the completeness of the plant (Reference 2) has been shown in this case to have been inaccurate, and notes that in certain circumstances inaccurate statements constitute a violation of 10CFR50.9. HL&P recognizes its responsibility and obligation to assure that information it provides to the Commission is complete and accurate in all material respects, and makes every effort to assure it fulfills this responsibility.

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In order to assure that Reference 2, a letter that encompassed the broad scope of Unit 1 design and construction activities, was complete and accurate, HL&P implemented a Plant Completion Verification Program. Reference 2 described that program and explained that its purpose was to provide a basis for verifying the readiness of the plant to be operated. Unfortunately, the omission of the vortex suppressors was not identified by that program. However, as explained in the enforcement conference of January 26, 1989, extensive investigation has shown that the omission of the vortex suppressors was an isolated error. We do not believe that such circumstances could constitute a violation of 10CFR50.9, and we do not believe that your letter intended to suggest otherwise.

HL&P's request for reconsideration of the proposed civil penalty is based on the following:

1. Existence of a Violation

The violation is admitted. HL&P's investigation determined that the architect-engineer properly translated into drawings and specifications the commitment to install vortex suppressors, but failed to distribute these documents to the organization that was responsible for installation of such structures in the containment sump. As a result, the vortex suppressors were not installed. This constituted a violation of the HL&P Quality Assurance Program and a violation of Criterion VI of 10CFR50, Appendix B.

2. Determination of Severity Level

HL&P believes that the violation should have been identified as severity level IV, not severity level III, because subsequent analysis shows that omission of the vortex suppressors would not have prevented any safety system from performing its intended function.

At the enforcement conference HL&P explained its assessment, which showed that even without vortex suppressors the ECCS would have performed its intended function. Reference 1 states that the NRC considered certain HL&P assumptions to be nonconservative. Although the NRC recognized that HL&P had preliminary results from independent experts confirming HL&P's conclusions, it stated that its own analysis found that system performance would have been degraded.

On March 17, 1989, contemporaneous with issuance of Reference 1, HL&P received the reports of the independent experts on vortex formation and pump performance. Those reports were promptly forwarded to the NRC by Reference 3. A follow-up letter, Reference 4, provided a summary of the expert conclusions. As explained in Reference 4, the reports of these experts confirm that the ECCS would have performed its intended function without the vortex suppressors. The experts on vortex formation concluded that it is unlikely that any vortex would have formed, and that in the unlikely event of vortex formation the maximum rate of air ingestion at the pump inlet would have been 4 percent. The experts on pump performance found that there is no data suggesting degradation of pump performance where the rate of air ingestion is 4 percent or less, and that the STP pumps have characteristics which make them likely to be less affected by air entrainment than the types of pumps which formed the basis of the available data (used in NUREG-0897) on pump performance with entrained air.

The reports of the experts thus confirm the appropriateness of the assumptions HL&P relied upon for its position in the enforcement conference. While this conclusion does not excuse the fact that the vortex suppressors had not been installed, it does indicate that this violation did not render a safety system incapable of performing its intended safety function under any identified conditions. Although the NRC is correct in stating that this limited safety significance is fortuitous, the NRC Enforcement Policy provides for determination of severity level based on actual safety significance. Under the circumstances the violation should be designated as severity level IV.

3. Mitigation and Escalation

More importantly, even if the categorization of the violation as severity level III is adhered to, the civil penalty warrants mitigation.

Mitigation is appropriate because HL&P:

- a. identified the condition;
- b. reported it to NRC;
- c. implemented prompt and extensive corrective actions; and
- d. had prior good performance in the areas related to the violation.

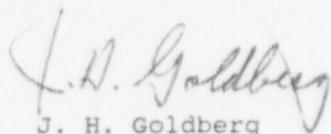
Reference 1 recognizes that HL&P discovered this condition, reported it to the NRC and implemented prompt and extensive corrective actions. The notice omits, however, consideration of HL&P's prior good performance. The experience most relevant to this area, construction QA and containment systems, were both rated as category 1 in the most recent SALP Reports, which evaluated these areas (Inspection Report 50-498/87-65, 50-499/87-65 dated March 11, 1988). Numerous audits, reviews and NRC inspections confirmed the effectiveness of these programs.

Relatedly, Reference 1 states that mitigation for self identification and corrective action was offset by the duration of the violation. The NRC suggested that HL&P should have been aware that the vortex suppressors were not installed and therefore that the duration of the violation weighed against mitigation. Implicit in this logic is the premise that the programs and systems HL&P relied upon to assure that the vortex suppressors were installed were somehow lacking and continued to be deficient up to the time of discovery, a conclusion at variance with the experience discussed above. On the contrary, omission of the vortex suppressors has been shown to be an isolated error in the implementation of a quality assurance program for construction and plant completion otherwise noted for its excellence. Since no requirements exist for ongoing inspection or verification of passive components similar to vortex breakers, HL&P believes that the criterion relative to the duration of the violation is not applicable.

In retrospect, HL&P believes that it would have been appropriate to provide an additional verification for passive components where their omission would not have been identified by pre-operational testing. However, there has never been an NRC requirement or practice in the industry to perform any such additional verifications. Thus, HL&P's reliance on the assumed installation of the vortex breakers in requesting relief from certain testing requirements (as noted by NRC) was neither unusual, derelict or even negligent.

Because the decision not to mitigate the proposed civil penalty did not consider HL&P's prior good performance in the affected area, and unduly emphasized the duration of the violation, if NRC does not revise its determination that the violation was severity level III, it should nevertheless mitigate the civil penalty.

HL&P submitted Licensee Event Report (LER) 88-63, to formally report the identification of the omission of the vortex suppressors, the cause of the omission, and the steps taken to correct the deficiency and prevent its recurrence. LER 88-63 was updated April 15, 1989 and now provides a current description of the event, HL&P's evaluation of it and the corrective actions. The NOV requires a reply that provides that same information. In order to comply with that requirement a copy of the LER, as amended, is attached.


J. H. Goldberg
Group Vice President
Nuclear

JHG/BEM/ae

Attachments: Response to Notice of Violation and Proposed
Imposition of Civil Penalty - Enforcement
Action 89-01

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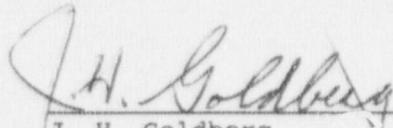
Houston Lighting & Power Company

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter)	
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Houston Lighting & Power Company, et al.,)	Docket Nos. 50-498
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South Texas Project)	
Units 1 and 2)	

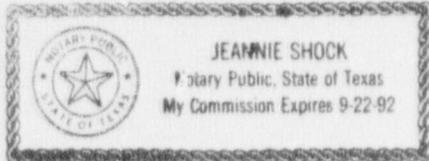
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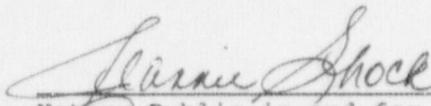
J. H. Goldberg being duly sworn, hereby deposes and says that he is Group Vice President, Nuclear of Houston Lighting & Power Company; that he is duly authorized to sign and file with the Nuclear Regulatory Commission the attached response to NRC Notice of Violation and Proposed Imposition of Civil Penalty - Enforcement Action 89-01 and 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
 Group Vice President, Nuclear

Subscribed and sworn to before me, a Notary Public in and for The State of Texas this 12th day of April, 1989.





 Notary Public in and for the
 State of Texas