



ARKANSAS POWER & LIGHT COMPANY

August 12, 1988

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L. J. Callan, Director
Division of Reactor Projects
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

SUBJECT: Arkansas Nuclear One - Units 1 and 2
Docket Nos. 50-313/50-368
License Nos. DPR-51 and NPF-6
Response to Inspection Report
50-313/88-05 and 50-363/88-05

Dear Mr. Callan:

Pursuant to the provisions of 10CFR2.201, a response to the violations identified in the subject inspection report is submitted.

Very truly yours,

J. M. Levine
J. M. Levine
Executive Director
Nuclear Operations

JML:PLM:djm
attachment

cc w/att: U. S. Nuclear Regulatory Commission
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Notice of Violation

- A. Criterion III of Appendix B to 10CFR Part 50 and Arkansas Power and Light QA Manual, Section 4.0, require that measures shall be established for design control. This includes selection and review for suitability of application for materials, parts, and components that are essential to the safety-related functions of structures, systems, and components.

Contrary to the above, the licensee selected and installed in Arkansas Nuclear One, Unit 1, socket head capscrews which did not meet the requirements of the specified seismic design bolting standard for a seismic support bracket for a high pressure injection pump recirculation line valve and motor operator. This standard was American Society for Testing Materials (ASTM) A-193, Grade B-7.

This is a Severity Level IV violation. (Supplement I)(313/8805-01)

Response to Violation 313/8805-01

- 1) The reason for the violation if admitted:

AP&L admits that the violation occurred as stated above. The Bill of Materials in the design change package did not list the capscrews. The field engineer was required to determine the acceptable capscrews to use in the installation. "Q" high strength steel capscrews were selected and installed. The requirements for the capscrews were not described in the design change summary or on the design drawings. Calculations are not provided to the field engineer; therefore, the requirements for the capscrews were not appropriately conveyed to the field.

- 2) The corrective steps which have been taken and the results achieved:

The material of the capscrews was high strength steel. An engineering evaluation determined, per discussions with the valve vendor who designed the support bracket, that this material was acceptable for this service and for the loads that would be experienced. The tensile and yield strengths as required by the valve vendor were met. However, to be conservative, the capscrews will be replaced with capscrews which meet or exceed the properties specified in ASTM, A-193, Grade B-7, as specified in the design calculation.

- 3) The corrective steps which will be taken to avoid further violations:

The subject design change was issued and installed in December 1986. This was prior to the implementation of the Plant Modifications organization under a new design change process which was effective November 1987.

This process requires that acceptance criteria and installation instructions associated with calculations and non-standard specifications be included in the Design Change Summary, not solely in the calculation or specification.

Material assignment is stipulated and the requirements for Bills of Materials are provided in the controlling procedure for design change development. With these controls, stock items such as fasteners would be listed on the Bill of Material and assigned to the design change. Material compatibility for use in the design change installation is reviewed prior to issuance for installation. These controls should prevent further violations.

4) The date when full compliance will be achieved:

The capscrews will be replaced during the Fall 1988 ANO-1 refueling outage. This should be completed by November 1, 1988.

Notice of Violation

- B. Criterion XVI of Appendix B to 10CFR Part 50 and Arkansas Power and Light QA Manual, Section 16, require that measures be established to assure that significant conditions adverse to quality are not only promptly corrected but that the cause of the conditions is identified and that action is taken to preclude repetition.

Contrary to the above, for Unit 2 Emergency Diesel Generator 2'4B, a pressurized fuel line that had a through-wall leak on or about December 9, 1985, was still installed with a silverbraze repair that lacked documented acceptability. In addition, no root cause determination, or action to preclude repetition, had been documented. These circumstances were first identified by NRC Inspection Report 50-313; 368/87-23 in August 1987, but no documented licensee corrective action had been accomplished since that time.

Response to Violation 368/8805-03

- 1) The reason for the violation if admitted:

AP&L admits that the violation occurred as stated above. When the leak occurred, the line was repaired by plant repairmen performing silver soldering. This was within the scope of the repairmen's skills and was considered an acceptable repair. The leak was due to a pinhole crack not visible without magnification. The leaking fuel was captured in an area designed to collect and contain fuel leaks around the engine injectors. The leak was not considered to render the diesel inoperable. The original engineering evaluation indicated that the line should be completely restored if no leakage was identified following the repair. It was not communicated by Engineering at that time that the repair should be considered temporary. However, a job request and job order were issued to replace the line. A new line was ordered. This job order was inappropriately cancelled. Because the replacement of the line was not part of the corrective actions listed in the Report of Abnormal Conditions, the job order was not tracked. Therefore, the long-term corrective action, replacing the line, was not accomplished.

- 2) The corrective steps which have been taken and the results achieved:

The acceptability of the line had been assured by leak testing and vibration analysis conducted as corrective actions following the condition. However, Engineering recommended that the repaired line be considered a temporary repair. Based on this recommendation, the line has been replaced. A preliminary visual examination of the defect in the repaired line has been made by Engineering. The defect appears to be a manufacturing defect rather than a defect caused by operation.

3) The corrective steps which will be taken to avoid further violations:

A Condition Reporting System was implemented May 29, 1988. This system requires, for each event, a determination of the significance of the condition according to the guidelines provided in the controlling procedure. The results of the significance determination are reported to the appropriate department manager who is to ensure a root cause analysis is conducted for those conditions deemed significant. Additionally, an independent root cause analysis is performed by the In-House Events Analysis group and these condition reports are reviewed by the Plant Safety Committee. Guidelines for performing root cause analysis have been developed and provided to department managers. This system would have adequately addressed the concerns of the violation had it been in effect at the time of the occurrence through a documented determination of significance and the followup actions in accordance with the procedure. These mechanisms would have documented Engineering's position and would have identified the inappropriate cancellation of the job order to replace the line. This should preclude the occurrence of further violations as well.

Regarding the determination of the root cause of the leak in the removed fuel line, the defect will be further examined by the AP&L Corporate Metallurgical Engineer through Engineering. Results of this examination will be documented.

4) The date when full compliance will be achieved:

We are currently in full compliance.