



Arkansas Power & Light Company  
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February 2, 1990

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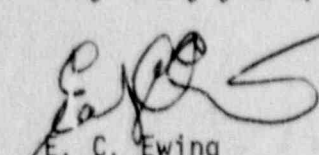
U. S. Nuclear Regulatory Commission  
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SUBJECT: Arkansas Nuclear One - Units 1 and 2  
Docket Nos. 50-313/50-368  
License Nos. DPR-51 and NPF-6  
Response to EA 89-220  
(Inspection Report 50-313/89-22; 50-368/89-22)

Gentlemen:

Pursuant to the provisions of 10CFR2.201, attached is the response to Violation A identified in the subject enforcement action. As discussed in the cover letter dated January 4, 1990, which accompanied the Notice of Violation, no response was required to Violation B of EA 89-220.

Very truly yours,

  
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General Manager,  
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and Assessment

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attachment

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Notice of Violation

Inadequate Procedures

Unit 1 and Unit 2 Technical Specification 6.8.1.a requires, in part, that written procedures shall be established, implemented, and maintained as recommended in Appendix A of Regulatory Guide 1.33, November 1972 and February 1978, respectively.

Contrary to the above, below are three examples of where the licensee failed to adequately maintain procedures:

1. Unit 1 Operating Procedure 1203.15, "Reactivity Balance Calculations," was revised in August 1976 such that the procedure did not consider the control rod of greatest worth being withdrawn from the core when calculating required shutdown boron concentrations for reactor coolant system temperatures below 275°F. As a result, shutdown margins were less conservative than assumed in the Safety Analysis Report. This condition was not corrected until February 1989.
2. Unit 2 Operating Procedure 2101.01, "Plant Startup," was revised in 1984 such that the containment sump isolation valves for the high pressure safety injection (HPSI) pumps would be restored to operable status after entry into Mode 4. Unit 2 Technical Specification 3.5.3 requires that the HPSI pumps with flow paths capable of taking suction from the refueling water tank on a safety injection actuation signal automatically transferring to the containment sump on a recirculation actuation signal be operable throughout Mode 4. This condition was not corrected until March 1989.
3. Unit 2 System Operating Procedure 2104.01, "Safety Injection Tank Operations," was found by the licensee to allow cross-connecting of all four safety injection tanks (SITs) via the nonseismic piping of the nitrogen addition system. As a result, a failure of the nonseismic nitrogen addition system piping while the SITs were crossconnected could have resulted in the depressurization and inoperability of more than one SIT. If this were to occur, this event or condition alone could have prevented the fulfillment of the safety function of the safety injection system. This procedural inadequacy was found and corrected by the licensee in 1985 but was not reported to the NRC until June 6, 1989.

This is a Severity Level IV violation. (Supplement I) (313;368/8922-01)

Response to the Violation

1. The reason for the violation:

Each of these examples of procedural inadequacies has been discussed in a Licensee Event Report previously submitted to the NRC:

- LER 50-313/89-005-00, dated April 13, 1989, "Personnel Error Results in an Inadequate Procedure Which Causes Calculated Reactor Shutdown Margins Less Conservative Than Assumed in the Plant's Design Basis"
- LER 50-368/89-004-00, dated March 31, 1989, "Inadequate Procedure Results in the Inability to Automatically Transfer High Pressure Safety Injection Pump Suction from the Refueling Water Tank to the Containment Sump with the Plant in Mode 4 (Hot Shutdown) during Startup"
- LER 50-368/85-028-00, dated June 6, 1989, "Personnel Error Results in the Potential Inoperability of the Safety Injection Tanks due to Cross-Connection of the Tanks Through the Nitrogen Addition System Piping"

The common cause of these three examples of inadequate procedures was an inadequate review of either Technical Specifications or design basis requirements during preparation of a procedure revision. A contributing cause was deficiencies in the 10CFR50.59 review process for procedure changes in place at the time the operating procedures were revised. As discussed in the LERs, the safety significance of the procedural inadequacies was minimal.

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

The procedural inadequacies identified in these examples have been corrected, which achieved compliance with the specifics of the violation. The revisions which had resulted in the inadequate procedures were made prior to 1987. In 1987, Arkansas Power and Light Company implemented a comprehensive program to meet management objectives to improve the quality, depth, and documentation of reviews conducted under 10CFR50.59 for plant design changes and procedure changes. The current program and its associated plant procedures require detailed documented reviews of licensing basis documents, which include Technical Specifications and the Safety Analysis Report, when making changes to plant procedures. These thorough reviews and in-depth evaluations performed for procedure changes should prevent further occurrences of this type of error.

3. The corrective steps which will be taken to prevent recurrence:

The enhancements to the 10CFR50.59 review process which have been made should ensure that any further revisions to procedures will be in compliance with Technical Specifications and with the requirements of the applicable bases as described in the Safety Analysis Report.



The Operations and Maintenance procedures are currently undergoing a thorough review as part of a procedure upgrade program initiated to enhance the format of the procedures as well as to correct technical deficiencies. Any additional errors of the kind cited in these three examples should be identified during this upgrade. Out of a total of approximately 1300 maintenance procedures, 275 are left to be reviewed. Out of approximately 316 operations procedures, 137 are left to be reviewed. Upgrades of the Maintenance procedures are expected to be completed by October 31, 1990, with the Operations procedures upgrades expected to be completed by the end of the first quarter in 1991.

4. The date when full compliance will be achieved:

Full compliance with the specifics of the violation was achieved when the procedures were revised to correct the inadequacies. All necessary revisions had been implemented by March 31, 1989.

The upgrades of the Maintenance procedures are expected to be completed by October 31, 1990, and the upgrades of the Operations procedures are expected to be completed by March 31, 1991.