



**Entergy
Operations**

Entergy Operations, Inc.
Route 3 Box 1370
Beverly Hills, AR 72801
Tel 501-964-8100

January 9, 1992

OCAN019206

U. S. Nuclear Regulatory Commission
Document Control Desk
Mail Station PL-137
Washington, DC 20555

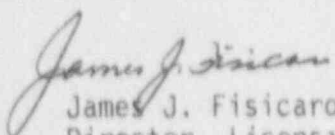
SUBJECT: Arkansas Nuclear One - Units 1 and 2
Docket Nos. 50-313 and 50-368
License Nos. DPR-51 and NPF-6
Response to Inspection Report
50-313/91-30; 50-368/91-30

Gentlemen:

Pursuant to the provisions of 10CFR2.201, attached is the response to violations 50-313/9130-01 and 50-368/9130-02.

Should you have questions or comments, please call me at 501-964-8601.

Very truly yours,


James J. Fisicaro
Director, Licensing

JCF/SWB/mmg

attachments

9201150108 920109
PDR ADOCK 05000313
Q PDR

Handwritten initials: TEL

U. S. NRC
January 9, 1992
Page 2

cc: Mr. Robert Martin
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

NRC Senior Resident Inspector
Arkansas Nuclear One - ANO-1 & 2
Number 1, Nuclear Plant Road
Russellville, AR 72801

Mr. Thomas W. Alexion
NRR Project Manager, Region IV/ANO-1
U. S. Nuclear Regulatory Commission
NRR Mail Stop 11-D-23
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852

Ms. Sheri Peterson
NRR Project Manager, Region IV/ANO-2
U. S. Nuclear Regulatory Commission
NRR Mail Stop 11-D-23
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852

NOTICE OF VIOLATION

During an NRC inspection conducted during the period October 4 through November 19, 1991, two violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1991), the violations are listed below:

A. Inadequate Statusing of Systems

Criterion XIV of Appendix B to Part 50, Title 10, Code of Federal Regulations requires, in part, that measures shall be established for indicating the operating status of structures, systems, and components of the nuclear power plant to prevent inadvertent operation.

Paragraph 7.3.1.C of Procedure 1015.01, "Conduct of Operations," requires that "The status of safety systems including their supporting auxiliary systems and major power generation components shall be known." The procedure further recommends in paragraph 8.2.1.C that change of status of safety systems and associated Technical Specification limitations and action requirements be recorded in the station log. Paragraph 11.2 of the same procedure recommends that the plant status board should have entries made whenever special operating consideration must be given a specific system or component.

Contrary to the above, the licensee identified that on October 4, 1991, Valve MU-17 was shut, resulting in High Pressure Injection Train A being inadvertently disabled, and the status of Valve MU-17 was not entered in the shift relief log, waste control operator turnover sheet, station log, or the plant status board. As implemented, established operating status indication methods were not sufficient to prevent the inadvertent disabling of High Pressure Injection Train A for two shifts prior to detection.

This is a Severity Level IV violation. (Supplement 1) (313/9130-01)

Response to violation 313/9130-01

(1) Reason for the violation:

Arkansas Nuclear One (ANO) agrees that a violation occurred regarding the inadvertent disabling of High Pressure Injection Train "A" for two shifts prior to detection on Unit One.

ANO - Unit One has three High Pressure Injection (HPI) pumps (P36A, B, and C) that are also used for makeup to the Reactor Coolant System. Under normal conditions, P36A is aligned to supply the "A" Train of HPI and P36C is aligned to supply the "B" Train of HPI. One pump is selected as the operating pump to maintain normal makeup, while the other pump will be lined up as the Engineered Safeguards (ES) standby pump. P36B is a "swing" pump which can be aligned to either train.

On October 4, 1991, while performing maintenance on HPI pump P36A, P36B was aligned to serve as the "A" Train HPI pump and to serve as the operating makeup pump from the Reactor Coolant Makeup Tank. As part of the maintenance activity, maintenance requested operations to fill and vent P36A.

A review by Operations to determine the alignment and sequence of valve manipulations to fill and vent P36A was performed. It was decided to close valve MU-17, A & B Suction Crossover Valve, and use the Borated Water Storage Tank (BWS1) as the filling source to reduce the risk of cavitating the operating makeup pump (P36B) by reducing the makeup water suction pressure and utilize the cleaner source of borated water in the event of pump leakage. MU-17 is a Category E valve (i.e., it is required to be locked in a specified position for the system to perform its safety function and whose mispositioning could go undetected from the control room).

MU-17 was shut on October 4, 1991 at 1807 hours. An entry was made concerning the change in the position of MU-17 on the Category E Valve Log Sheet, Form 1015.001B. It was not recognized that closing MU-17 isolated P36B from its BWST source and rendered Train "A" of HPI inoperable, therefore impacting Technical Specification requirements. Because the Technical Specification action requirement was not recognized, entries were not made in the shift relief log, waste control operator turnover log, station log, or the plant status board as recommended by Procedure 1015.01, "Conduct of Operations."

However, at approximately 0930 hours on October 5, 1991, during a review of the Category E Valve Log Sheet, another operator identified that MU-17 had been mispositioned and began taking appropriate corrective actions to return it to the correct position.

The causes of the violation were determined to be:

- 1) There was too much focus on the specific task being performed without considering the overall system effects.
- 2) The "swing pump" design concept was taught to the operators such that P36B was emphasized as a makeup pump rather than an ES pump. In addition, the operators focused on maintaining the makeup pumps in an operational condition.
- 3) Inadequate consideration was given to why a Category E valve was locked open prior to changing the position of the valve.

(2) Corrective steps taken and the results achieved

Prior to the expiration of the 36 hours allowed by the action requirement in Technical Specification 3.3.6, Operations identified that HPI Train "A" was inoperable. Corrective actions to restore MU-17 to the locked open position were completed at 0930 hours on October 5, 1991 restoring HPI Train "A" to an operable status.

A Unit One review of past conditions was conducted and no similar events were identified.

Unit Two Operations has reviewed this condition and determined that their design configuration does not include dual function pumps for High Pressure Safety Injection (HPSI). Therefore, this operation could not occur on the Unit Two HPSI System.

(3) Corrective steps which will be taken to avoid further violations

Briefings for each operating crew were conducted by the Unit One Operations Manager which emphasized the lessons learned from this event. This action was completed on December 20, 1991.

Procedure 1015.001 was revised to clearly define what the Shift Superintendent should consider prior to approving the positioning of a Category E valve. This action was completed on January 8, 1992.

The Unit One Operations Training Program has been revised to emphasize flowpath configuration and electrical system alignment requirements necessary to utilize P36B as an ES HPI pump. This action was completed on December 31, 1991.

(4) Date of full compliance

Full compliance was achieved on October 5, 1991 at 0930 when MU-17 was returned to the locked open position clearing the Technical Specification action requirement.

NOTICE OF VIOLATION

B. Fire Protection Barrier Disabled

Technical Specification 6.8.1.a requires, in part, that written procedures shall be implemented covering activities referenced in Appendix A of U. S. Nuclear Regulatory Commission Regulatory Guide 1.33, Revision 2. Regulatory Guide 1.33, Appendix A, Section 9.a, states, in part, that maintenance that can affect the performance of safety-related equipment should be properly preplanned and performed in accordance with written procedures.

Paragraph 6.1 of Procedures 1000.120, "Station Admin., ANO Fire Barrier Watch Program," states, in part, that any activity at ANO which degrades or breaches a TS fire barrier must be identified and reported so that the degradation may be evaluated and action taken.

Contrary to the above, on October 23, 1991, the fire door separating the A and B emergency diesel generator rooms was obstructed by test cables, rendering the barrier inoperable, without the Shift Superintendent being informed, which prevented him from taking compensatory action.

This is a Severity Level IV violation. (Supplement 1) (368/9130-02)

Response to violation 368/9130-02

(1) Reason for the violation:

Arkansas Nuclear One agrees that a violation occurred regarding the obstruction of a Unit Two fire door with ultrasonic test cabling without the Shift Superintendent's knowledge.

On October 23, 1991, contract personnel were performing ultrasonic pipe wall thickness testing on the Service Water piping to and from both Emergency Diesel Generator (EDG) heat exchangers. To perform testing on the "A" EDG Service Water piping, test cables were routed through the fire door separating the "A" and "B" EDG vaults. The contract personnel thought this was an acceptable practice since one person would always be next to the door on the "B" EDG side.

An NRC inspector observed this evolution and telephoned the Unit 2 Control Room to ask if Operations was aware of the maintenance activities being performed in the "A" EDG rooms. The response was negative and the Shift Superintendent immediately dispatched a Waste Control Operator to investigate the situation. The fire door was breached for approximately 20 minutes and was continually manned.

The root cause of the violation was determined to be personnel error in that the contractor personnel did not follow the requirements of Procedure 1000.120, "Station Admin., ANO Fire Barrier Watch Program" by notifying the Shift Superintendent of the need to breach the fire barrier before continuing work. A contributing cause was an inadequate pre-job briefing stressing the importance of station fire barriers and reviewing of station fire watch procedures.

(2) Corrective steps taken and the results achieved

A Waste Control Operator was immediately dispatched to the EDG room to determine the actual situation. The Waste Control Operator performed an inspection of both EDG's finding no equipment or system operability concerns.

The Project Task Manager immediately resolved the condition by having the contract personnel remove the test signal cables and associated equipment from the "B" EDG vault to the "A" vault and secure the fire door. Additional ultrasonic testing was conducted and the testing contract was completed without further incident.

The Unit 2 System Engineering personnel were initially briefed by management on this condition. System Engineering management will review the details of this condition with System Engineering personnel to discuss the lessons learned from this condition and their responsibilities for contractors and pre-job briefings pursuant to administrative procedure 1000.120. This action is expected to be complete by February 4, 1992.

(3) Corrective steps which will be taken to avoid further violation

Several reviews were performed to determine if generic programmatic implications existed.

1. A review of the General Employee Training (GET) Program was conducted to determine if inadequacies existed in the material concerning fire door requirements. It was determined that fire door controls are discussed in GET-1 (Initial Site Access Training), GET-1A (Site Access Retraining), and GET-1R (Site Specific Training). This information is also included in the handout for each of these classes.
2. A review of previous Condition Reports, Licensee Event Reports and violations was conducted to determine if fire door breaches were a recurring programmatic problem. This review did not identify any programmatic problems.
3. A review of industry standards for fire door labeling was performed. The review indicated that ANO possesses a more detailed fire door labeling program as compared to others reviewed in the industry. In addition, in 1984, ANO received an Institute of Nuclear Power Operations (INPO) good practice for the fire barrier/door identification system. The fire barrier/door identification system has not been significantly changed since that time.

As a result of these reviews, Entergy Operations believes this condition is not indicative of a generic programmatic concern related to the fire protection program.

However, in an effort to address the potential for any future personnel errors and reinforce the requirements to notify the control room to establish a fire watch when a fire door is to be breached, AND will enhance the current labels on all Technical Specification required fire doors with clearer wording emphasizing compliance with station procedures. This action is expected to be complete by August 1, 1992 and the work will be prioritized according to each unit's outage schedule.

(4) Date of full compliance

Full compliance was achieved when Fire Door #259 was closed and secured.