

10CFR2.201

May 28, 1997

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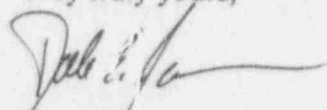
Subject: Arkansas Nuclear One - Unit 2
Docket No. 50-368
License No. NPF-6
Response To Inspection Report
50-313/97-01; 50-368/97-01

Gentlemen:

Pursuant to the provisions of 10CFR2.201, attached is the response to the notice of violation identified during the inspection activities associated with the failure to identify out-of-tolerance voltage readings during a technical specification required surveillance test.

Should you have any questions or comments, please call me at 501-858-4601.

Very truly yours,


For Dwight C. Mims
Director, Nuclear Safety

DCM/ajs

Attachments

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NOTICE OF VIOLATION

During an NRC inspection conducted on February 2 through March 15, 1997, one violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violation is listed below:

Unit 2 Technical Specification 6.8.1 states, in part, that written procedures shall be established, implemented, and maintained covering surveillance and test activities of safety-related equipment.

Procedure 23C4.105 Revision 16, "Unit 2 Excores Safety Channel B Calibration," Supplement 2, "Refueling Interval Calibration," Steps 8.3.4.A and 8.3.5.B, direct technicians to measure and record specified voltages and make necessary adjustments to return the voltages to within tolerance.

Contrary to the above, on February 14, 1997, Unit 2 instrumentation and control technicians failed to recognize that voltages measured in Steps 8.3.4.A and 8.3.5.B were not within the required tolerance and thus did not make the necessary adjustments to place them within the required tolerance.

This is a Severity Level IV violation (Supplement 1) (Violation 50-368/9701-02).

Response to Notice Of Violation 368/9701-02

(1) Reason for the violation:

On February 12, 1997, two ANO-2 technical specification required surveillance activities; a monthly test, procedure 2304.101, *Unit 2 Excores Safety Channel B Test*, and an 18 month calibration, procedure 2304.105, *Unit 2 Excores Safety Channel B Calibration, Supplement 2, Refueling Interval Calibration*, were scheduled to be performed. Each test was controlled by a separate job order. Although some of the steps and data points were technically the same in both procedures, the tolerance values were more restrictive for the 18 month calibration than for the monthly test.

The monthly test was satisfactorily completed, excore safety channel "B" returned to an operable status, then verified by peer and supervisory reviews. With supervisory concurrence, the data was copied from the monthly test to the duplicate steps in the 18 month calibration. Data and check marks (indicating that the data was within the allowed tolerance) were transcribed without adequate verification against the more restrictive calibration tolerances. The values in two data points (steps 8.3.4.A and 8.3.5.B), although within the tolerance of the monthly test, were out-of-tolerance for the more restrictive channel calibration requirements.

Due to procedure corrections and emergent work, several starts and stops of procedure 2304.105 occurred between February 12 and 15, 1997. As a result of the delays, completion of the 18 month calibration was deferred until the week of March 10, 1997, the next channel "B" work week. Since the testing had not been completed there was no supervisory review of the procedure and the out-of-tolerance readings were not recognized. Therefore, the required calibration adjustments were not made.

The out-of-tolerance condition in the channel "B" calibration was discovered by a technician on February 27, 1997, while researching a procedure problem with the channel "D" calibration. The technician noted that out-of-tolerance values had been copied from the monthly test to the 18 month calibration procedure. The error was discussed with a supervisor and it was incorrectly concluded that the required adjustment could wait until March 11, 1997, when the 18 month calibration was scheduled to be completed. Since the tolerance requirements of the monthly test were satisfied, the need to evaluate the out-of-tolerance condition in the channel calibration at that time was not recognized.

Two root causes have been identified for this error: (1) self-checking not applied to tests results and (2) less than adequate review of test results. When data was transferred from the monthly test procedure to the calibration procedure, sufficient attention-to-detail was not applied to the task of evaluating the test data against the acceptance criteria of the step and self-checking the results. Acceptability of surveillance test data was dependent upon one individual recording the data and

reviewing the data against the acceptance criteria. Subsequently, supervisory review is required in the restoration section of surveillance tests but after the point where operations has declared the equipment operable. Additional barriers should have existed to prevent a single human error from going undetected.

(2) Corrective steps that have been taken and the results achieved:

The cut-of-tolerance portions of procedure 2304.105 were re-tested and necessary adjustments were completed to bring the voltage values in tolerance.

On March 10, 1997, work was stopped in the ANO-2 I&C shop to reiterate management expectations concerning procedure adherence and attention-to-detail. Recognition and evaluation of out-of-tolerance data and the interim corrective actions were included in the discussions with shop personnel.

The details of this issue were also discussed with personnel in the ANO-1 I&C shop. In addition, the information was provided to the electrical and mechanical maintenance superintendents on both units.

Formal interim guidance was issued to I&C personnel to require a peer check and supervisory review of surveillance data prior to releasing equipment back to operation.

The practice of transcribing data from one I&C procedure to another has been suspended until it has been thoroughly evaluated and the resulting guidelines and expectations formally communicated to I&C personnel.

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

An evaluation will be completed by August 31, 1997, of the I&C post surveillance process for returning equipment to service. A determination will be made of the work practices that should be utilized to detect errors in test results prior to releasing the equipment for operation.

An evaluation will be completed by August 31, 1997, of the need for a standard practice for the comparison of "as-found" data to procedural tolerance requirements prior to checking the "as-left" block.

Refresher training of the requirements for evaluating out-of-tolerance conditions will be conducted with both units I&C personnel by September 15, 1997.

Expectations related to taking credit for steps in one procedure that were conducted in a different procedure will be developed and communicated to I&C personnel of both units by September 15, 1997.

(4) Date when full compliance will be achieved:

Full compliance was achieved on March 12, 1997, when procedure 2304.105, *Unit 2 Excores Safety Channel B Calibration*, Supplement 2, *Refueling Interval Calibration*, was completed satisfactorily which included resolution of the out-of-tolerance condition.