

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-313/89-43
50-368/89-43

Operating Licenses: DPR-51
NPF-6

Dockets: 50-313
50-368

Licensee: Arkansas Power & Light Company (AP&L)
P.O. Box 551
Little Rock, Arkansas 72203

Facility Name: Arkansas Nuclear One (ANO), Units 1 and 2

Inspection At: ANO, Russellville, Arkansas

Inspection Conducted: October 30 through November 3, 1989

Inspector:

W. M. McNeill
W. M. McNeill, Reactor Inspector, Materials
and Quality Programs Section, Division of
Reactor Safety

11-22-89
Date

Approved:

I. Barnes
I. Barnes, Chief, Materials and Quality
Programs Section, Division of Reactor Safety

11-22-89
Date

Inspection Summary

Inspection Conducted October 30 through November 3, 1989 (Report 50-313/89-43;
50-368/89-43)

Areas Inspected: Routine and reactive, unannounced inspection involving action on previously identified inspection findings and followup on immediate corrective actions taken in response to problems identified during an October 16-20, 1989, inspection (NRC Inspection Report 50-313/89-42; 50-368/89-42) regarding control of welding activities.

Results: Within the areas inspected, no violations or deviations were identified. The corrective actions implemented, to date, regarding control of welding activities appeared to be sufficiently generic, effective, and responsive to the NRC concerns with the exception of an absence of documentation regarding performance of prejob reviews of welding packages.

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DETAILS

1. Persons Contacted

AP&L

A. M. Armstrong, Maintenance Coordinator
J. D. Barrett, Quality Control (QC) Supervisor
W. M. Butzlaff, Quality Assurance (QA) Engineering Supervisor
*J. J. Fisicaro, Licensing Manager
M. W. Hall, Engineering Welding Coordinator
T. L. Hansen, Contracts Administrator
*J. D. Jacks, Nuclear Safety and Licensing Specialist
*G. T. Jones, Engineering General Manager
*R. J. King, Licensing Supervisor
*R. D. Lane, Engineering Manager
D. B. Lomax, Plant Licensing Supervisor
*D. Mims, Plant Engineering Superintendent
R. E. Mitchell, Mechanical Installation Supervisor
*J. H. Mueller, Central Support Manager
G. A. Parks, QC Supervisor
*G. D. Provencher, QA Superintendent
*E. E. Rogers, Maintenance Engineering Superintendent
*J. Taylor-Brown, QC/Quality Engineering Superintendent
*J. D. Vandergrift, Nuclear Operations Acting Director
D. C. Whiting, Maintenance Welding Supervisor

Fluor Daniel

R. E. Holman, Welding Coordinator

NRC

R. C. Haag, Resident Inspector

*Denotes those persons that attended the exit meeting on November 3, 1989. In addition, the NRC inspector contacted other members of the licensee's staff.

2. Followup on Previous Inspection Findings (92701 and 92702)

a. (Closed) Violation (313/8804-04; 368/8804-05): Failure to implement the procedural tracking commitments in regard to 10 CFR Part 21.

The inspector verified that the Condition Reporting System (Procedure 1000.104) was being used for tracking 10 CFR Part 21 items in place of the deleted Procedure 304.

- b. (Closed) Unresolved Item (313/8916-02; 368/8916-02): Justification of acceptability of installations utilizing Okonite tape.

The licensee submitted a letter OCAN 108915, dated October 30, 1989, to the NRC which provided an appropriate basis for a determination that installed tape was manufactured to the same standards and requirements as the lots subjected to environmental qualification testing.

- c. (Closed) Violation (313/8826-01; 368/8826-01): Failure to revise procedures to reflect organizational changes.

The inspector found that the four procedures in question have been revised to reflect the current organization. There have been no major changes to the organization that have impacted in a similar manner since this violation was issued.

3. Followup on AP&L Corrective Actions Taken in Regard to Control of Welding Activities (55050)

The objectives of this inspection were to followup on immediate corrective actions taken by AP&L in response to problems identified during an October 16-20, 1989, inspection (NRC Inspection Report 50-313/89-42; 50-368/89-42) regarding control of welding activities. The corrective actions were documented in AP&L letter OCAN 10817 dated October 26, 1989, and consisted of the following actions:

- o Training of welders to emphasize the importance of verbatim compliance with procedures, welding procedure specifications (WPSs), drawings, etc., including direction to stop work if compliance is not accomplished;
- o Inclusion of a copy of the WPS in the welding package sent to the field;
- o Review by the supervisor of each welding package and WPS with the welder prior to the start of work;
- o Increased QC in-process surveillance of welding to further assure procedural compliance; and
- o Review of WPSs to assure adequacy and accuracy.

The inspector found that there was an internal memorandum, ANO-89-10165, which restated the above requirements in regard to maintenance and modification welding operations. The internal memorandum also stated that welding machines would be checked weekly with an ammeter.

Training of certain welders, in particular AP&L welders, was not documented until the inspector inquired about attendance records. Documentation of the prejob reviews has not been accomplished.

It was noted that the prejob reviews has been a requirement in paragraph 6.6.1 of Procedure 1092.011. AP&L is reviewing this issue.

The inspector witnessed four gas tungsten arc welding operations performed by AP&L and Daniels welders. The four safety-related welds observed, all of which utilized WPS P8-T-Ag, were Line 2CCC-13-1, FW 23 (Reactor Coolant Pump C Vapor Seal Sensing Line); Line 2CCC-8-1, FW 10 (Reactor Coolant Pump A Middle Seal Sensing Line); Line 2HCB-152, FW 2C-1 (Thermal Relief off Charging Pump Suction From Refueling Water Tank); and Line 2HCB-103-1, FW 3 (Boric Acid Makeup Tank Drain). The inspector verified that variables such as electrode and filler metal type and size, position, preheat, interpass temperature, gas flow, amperage, and cup size were being controlled in accordance with WPS requirements. The welding packages were found to contain a copy of the appropriate WPS and the inspector additionally observed that supervisors were reviewing the WPS and welding package with the welders before the start of work. Interpass cooling using demineralized water had been approved by an internal memorandum, ANO-89-10110, and will be added to the next revision of Nuclear Welding Standard M-2415.

A review of the records of QC in-process surveillance of welding found that approximately 60 surveillances have been performed since October 20, 1989. These surveillances have resulted in two Condition Reports on welding. These surveillances were performed to a new detailed checklist of essential and nonessential variables. The QC surveillance procedures will be revised in regard to the use of the new checklist within the next week.

Approximately a third of the WPSs have been reviewed to date and 11 have been revised as a result of the review.

No violations or deviations were identified in this area of the inspection.

4. Exit Meeting

An exit meeting was held on November 3, 1989, with those individuals denoted in Section 1 of this report. At this meeting, the scope of the inspection and the findings were summarized. The licensee did not identify as proprietary any of the information provided to or reviewed by the NRC inspector.