

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-313/84-25
50-368/84-25

Licenses: DPR-51
NPF-6

Dockets: 50-313
50-368

Licensee: Arkansas Power and 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 site, Russellville, Arkansas

Inspection Conducted: July 23-27, 1984

Inspector: Blaine Murray 8/22/84
for Wesley L. Holley, Radiation Specialist Date

Approved: Blaine Murray 8/22/84
Blaine Murray, Chief, Facilities Radiological Date
Protection Branch

L. Martin 8/23/84
L. Martin, Project Section A Date
Reactor Project Branch 2

Inspection Summary

Inspection Conducted July 23-27, 1984 (Report 50-313/84-25; 50-368/84-25)

Areas Inspected: Routine, unannounced inspection of the licensee's radioactive waste systems including: management organizations; training and qualifications; radioactive liquid and gaseous effluent release; records and reports of radioactive effluents; procedures for controlling effluent releases; testing of air cleaning systems; instrumentation; reactor coolant

water quality; radiochemistry and plant quality controls; and licensee audits of radiochemistry activities. The inspection involved 45 inspector-hours onsite by one NRC inspector.

Results: Within the ten areas inspected, no violations or deviations were identified.

DETAILS

1. Persons Contacted

Arkansas Power and Light Company (AP&L)

J. M. Levine, General Manager
B. A. Baker, Operations Manager
*B. L. Bata, Quality Assurance (QA) Engineer
J. R. Brown, Senior QA Inspector
D. Burton, Maintenance Training Supervisor
*P. Campbell, Licensing Engineer
H. Carpenter, Instrumentation & Control (I&C) Supervisor
*E. C. Ewing, Engineering and Technical Support Manager
*G. L. Fiser, Radiochemistry Supervisor
M. E. Frala, Assistant Radiochemistry Supervisor
W. B. Hall, Mechanical Engineer (ME)
R. D. Hargrove, Lead Operations Trainer (LOT), Unit 2
*L. W. Humphrey, Administrative Manager
P. A. Kearney, ME
*D. B. Lomax, Plant Licensing Supervisor
G. D. Provencher, Quality Engineering Supervisor
J. T. Pugh, Lead General Employee Training Trainer
*C. N. Shively, Plant Engineering Superintendent
S. Strasner, Quality Control (QC) Supervisor
J. D. Vandergrift, Training Superintendent
J. R. Waid, Administrative/Technical Support Supervisor
E. D. Wentz, LOT, Unit 1
C. P. Zimmerman, Operations Technical Support

Other Personnel

*W. D. Johnson, NRC Senior Resident Inspector

*Denotes those present during the exit interview.

2. Organization and Management Controls

The NRC inspector reviewed the licensee's functional organization regarding radioactive waste management to determine compliance with Final Safety Analysis Report (FSAR) commitments and Technical Specification (TS) requirements.

During the period of this inspection, the ANO organizational structure and radiochemistry staffing appeared to be sufficient to meet the requirements for performance of radioactive waste system activities. The licensee had

plans to add an assistant radiochemistry supervisor to the radiochemistry staff in the near future.

The duties and responsibilities were described in the position descriptions for the radiochemistry supervisor and assistant supervisors. The job/position descriptions and functional area assignments for radiochemistry technicians had been established. The NRC inspector reviewed the licensee's radioactive effluent release program and radioactive waste program and determined that the licensee had procedures for these program tasks.

No violations or deviations were identified.

3. Training

The NRC inspector reviewed the training activities related to the radwaste program to determine conformance to the FSAR and TS.

The licensee had established a Qualified Waste Control Operator training program. This program consisted of formal classroom instruction and evaluation in the training organization and an on-the-job training (OJT) portion under the auspices of the operations organization. The NRC inspector reviewed the training procedures, lesson plans, examinations of selected personnel, and OJT checklists, and determined that oral and system walkthrough examinations were given.

The NRC inspector determined the organization had an OJT training program for the I&C technicians which included tasks on the process and effluent monitors and instrumentation in the radwaste systems. The training department also presented formal classroom training on radwaste systems to I&C personnel. The NRC inspector reviewed the training procedures, lesson plans, examinations of selected personnel, and OJT checklists.

No violations or deviations were identified.

4. Radioactive Effluent Releases

a. Liquid

The NRC inspector reviewed the licensee's liquid effluent release program to determine compliance with the TS.

The NRC inspector reviewed selected licensee records for radioactive liquid releases for this inspection period (May 1983 - July 23, 1984). The licensee's records of liquid effluent releases appeared to be properly maintained and showed no indications that liquid releases exceeded the TS limits.

No violations or deviations were identified.

b. Gaseous

The NRC inspector reviewed the licensee's gaseous effluent release program to determine compliance with the TS.

The NRC inspector reviewed selected licensee records for radioactive gaseous releases for this inspection period. The licensee's records of gaseous effluent releases appeared to be properly maintained and showed no indications that liquid releases exceeded the TS limits.

No violations or deviations were identified.

5. Records and Reports of Radioactive Effluents

The NRC inspector reviewed the licensee's records and reports to determine compliance with the requirements of 10 CFR 50.36a(a)(2) and the TS.

The NRC inspector noted that the content and format of the licensee's records and reports were in agreement with established guidance. The NRC inspector determined there had not been any licensee event reports issued involving radwaste activities during this inspection period.

No violations or deviations were identified.

6. Procedures for Effluent Release Control

The NRC inspector reviewed the licensee's procedures for controlling liquid and gaseous releases to determine compliance with the TS. The procedures provided for the following:

- Technical Specification limits
- Radiochemistry analysis results
- Function tests of liquid/gas monitors and isolation valves
- Allowable release rate
- Dilution flow rate
- Valve lineup verification
- Total volume released
- Total activity released
- Duration of release
- Authorization signatures

No violations or deviations were identified.

7. Testing of Air Cleaning Systems

The NRC inspector reviewed the licensee's procedures, surveillance, and test results for the air cleaning systems containing HEPA filters and charcoal adsorbers to determine compliance with the TS.

The licensee's procedures provided for the required periodic functional checking of system components, evaluation of charcoal adsorber iodine removal efficiency, tracking of system operating hours, evaluation of the iodine removal efficiency of the carbon adsorbers, and in-place testing of the filter system. A review of the records indicated that inspections and tests required by the TS had been completed in a timely manner. An outside consultant performed the in-place dioctyl phthalate tests of HEPA filters and the iodine removal efficiency of the carbon adsorbers.

No violations or deviations were identified.

8. Effluent Control Instrumentation

The NRC inspector reviewed the licensee's liquid and gaseous effluent control instrumentation used in controlling effluent releases to determine compliance with the TS.

The NRC inspector reviewed various documents and noted that the licensee's effluent and process monitors were being calibrated on an annual or refueling outage schedule. The I&C section of the maintenance department was responsible for the calibrations and functional tests associated with the process and effluent control instrumentation.

No violations or deviations were identified.

9. Reactor Coolant Water Quality

The NRC inspector reviewed the licensee's program and records for the monitoring and control of reactor coolant water quality to determine licensee compliance with the TS.

The NRC inspector reviewed selected records of reactor coolant water quality for this inspection period. The records indicated that the chemical conditions, sampling frequency, and sample analyses met the requirements of the TS.

No violations or deviations were identified.

10. Quality Control

The NRC inspector reviewed the licensee's QC program for the radwaste activities to determine compliance with the TS.

The NRC inspector reviewed the radiochemistry QC program and the ANO QC organization's program. The licensee's procedures and records appeared to be in order and indicated that the licensee had maintained an adequate quality control program.

No violations or deviations were identified.

11. Audits

The NRC inspector reviewed the licensee's audits of the radwaste activities associated with liquid and gaseous effluent releases to determine compliance with the QA program.

The licensee had combined two audits, Quality Assurance Procedure (QAP)-17, "Environmental Monitoring," and QAP-22, "Chemistry," into one audit, QAP-22, "Chemistry/Radiochemistry and Environmental Monitoring." During this inspection the licensee was in the process of performing audit QAP-22 and had completed the programmatic portion of the audit. This portion of the audit did not reveal any significant problem areas in the radwaste activities. The technical portion of the audit is being performed by personnel knowledgeable in radwaste procedures and activities.

No violations or deviations were identified.

12. Plant Tour

The NRC inspector toured the licensee's facilities on July 26, 1984, and observed the process and effluent monitors and recorders for ANO, Units 1 and 2 and the radwaste sample locations for Unit 1.

No violations or deviations were identified.

13. Exit Interview

The NRC inspector met with licensee personnel and the senior NRC resident inspector listed in paragraph 1 at the conclusion of the inspection on July 27, 1984. The NRC inspector summarized the scope of the inspection and the inspection findings.