



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

JUL 10 1985

Report No.: 70-1201/85-04

Licensee: Babcock and Wilcox Company
Commercial Nuclear Fuel Plant
Lynchburg, VA 24505

Docket No.: 70-1201 (CNFP)

License No.: SNM-1168

Facility Name: Commercial Nuclear Fuel Plant

Inspection Conducted: June 12-14, 1985

Inspector: William B. Gloersen
W. B. Gloersen

6/28/85
Date Signed

Approved by: D. M. Montgomery
D. M. Montgomery, Section Chief
Division of Radiation Safety and Safeguards

6/28/85
Date Signed

SUMMARY

Scope: This routine, unannounced inspection involved 15 inspector-hours on site in the areas of radioactive waste management and environmental protection.

Results: One violation was identified - failure to submit a semiannual effluent report specifying the quantity of radionuclides actually released during the second half of 1984.

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *R. A. Alto, Plant Manager
- *C. W. Speight, Manager, Facilities and Services
- *J. P. Watters, License and Control Administrator
- *B. W. Pugh, Production and Material Control
- *K. E. Shy, Health Physicist

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on June 14, 1985, with those persons indicated in Paragraph 1. The inspector described the areas examined and discussed in detail the inspection findings. One violation was identified and discussed with a licensee representative in a telephone conversation on June 27, 1985, concerning the submittal of an erroneous semiannual effluent report (Paragraph 4). Licensee management acknowledged the inspector's comments and expressed no contrary opinions. The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspectors during this inspection.

3. Licensee Action on Previous Enforcement Matters (92702)

(Closed) 70-1201/84-05-01: Failure to provide approved procedure for DOP testing of HEPA filters in air cleaning systems. The inspector reviewed Health-Safety Procedure AS-1103 Airborne Radioactive Materials Control, Revision 8, dated August 14, 1984, and noted that the licensee had incorporated the manufacturer's manual for the operation of the DOP test equipment by reference. Licensee representatives explained that incorporation of the manufacturer's manual by reference involved the review and approval of the manual. Since the manual had been used for several years, personnel using the equipment had already received specific training in equipment operation. The licensee's corrective action was adequate. This item is considered closed.

4. Records and Reports of Liquid and Gaseous Radioactive Effluents (88035)

10 CFR 20.106 requires the licensee to limit discharges to less than the limits specified in 10 CFR 20, Appendix B, Table II, when averaged over a period not greater than one year. 10 CFR 70.59 requires the licensee to submit a semiannual report to the appropriate NRC Regional Office specifying the quantity of each of the principal radionuclides released to unrestricted areas in liquid and gaseous effluents during the previous six months of operation.

The inspector reviewed the licensee's semiannual effluent reports for the periods January 1984 through June 1984, dated July 26, 1984 and July 1984 through December 1984, dated January 10, 1985. The inspector noted that the second half 1984 report data were exactly the same as the data reported in the first half 1984 report. The inspector reviewed the raw data calculations and determined that the first half 1984 data were inadvertently used for the second half 1984 report. The inspector informed the licensee of this discrepancy and the licensee prepared and mailed a corrected report on June 13, 1985. In a telephone conversation on June 27, 1985, the inspector informed a licensee representative that submitting a semiannual report that did not specify the actual quantities of the principal radionuclides released was a violation of 10 CFR 70.59(a)(1). However this is of very minor safety significance (70-1201/85-04-01).

One violation was identified.

5. Procedures (88035, 88045)

Section V, Conditions, Paragraph 6.5, Procedure Control, of the application required the licensee to establish, maintain, and implement written procedures for the conduct of specific operations including maintenance and development of work within the plant, nuclear and radiological safety, and quality control. The inspector selectively examined the following procedures:

- ° AS-1103, Airborne Radioactive Materials Control, Revision 8, August 14, 1984
- ° AS-1104, Contaminated Liquid Effluent Control, Revision 8, April 23, 1985.
- ° AS-1110, Waste Control, Revision 8, December 21, 1984.
- ° AS-1111, Shipment and Receipt of Radioactive Materials, Revision 11, November 15, 1984.
- ° AS-1121, Uranium Bioassay Program, Revision 6, November 15, 1984.
- ° AS-1124, Preparation, Distribution, and Control of Health-Safety Procedures, Revision 7, December 14, 1984.
- ° AS-1125, Health-Safety Audits, Revision 5, December 19, 1984.
- ° AS-1127, Environmental Monitoring, Revision 8, January 4, 1985.
- ° AS-1129, Calibration and Maintenance of Radiation Survey Instruments, Revision 0, October 19, 1984.

The inspector noted that the procedures were being reviewed, updated, and approved.

6. Records and Reports (88035, 88045)

The inspector reviewed selected portions of the following records:

- a. Semiannual Effluent Release Reports for 1984
- b. Environmental sample collection records for samples specified in Part V, Conditions, Section 8.14, "Environmental Monitoring":
 - quarterly surface water supplies (4th quarter 1984, 1st quarter 1985)
 - monthly air particulate samples (August 1984 through May 1985)
 - annual soil samples (June 1984)
 - quarterly ambient radiation measurements (1st quarter 1985)
 - quarterly sediment samples (4th quarter 1984, 1st quarter 1985)
 - semi-annual vegetation samples (2nd half 1984)
 - quarterly soil data for station "G" (March 20, 1985)
- c. Controlled area effluent stack sample results, August 1984 - May 1985
- d. Liquid effluent release records, January 1985 - June 10, 1985
- e. National Pollution Discharge Elimination System (NPDES) Reports, Industrial Discharge Monitoring Reports, August 1984 - May 1985.
- f. Quarterly Gaseous Effluent Discharge Reports (for 40 CFR 190 requirements), fourth quarter 1984, first quarter 1985.
- g. Replicates of liquid effluent samples (every tenth release), August 1984 - May 1985.
- h. Counting reliability comparisons for gross alpha air samples between CNFP, NNFD Radiation Control Laboratory, and Control for Environmental Pollution, Inc., April 16, 1985.
- i. Alpha/Beta counter instrument control records, January 1985 - May 1985:
 - daily background checks
 - daily source checks
- j. Alpha/Beta counter plateau determinations and detector efficiency determinations, January 1985.

- k. DOP testing for selected nuclear air cleaning systems
 - ° pellet plant recirculation, October 31, 1984; August 8, 1984
 - ° controlled area, August 8, 1984

Within the areas examined, no violations or deviations were identified.

7. Environmental Monitoring Program (88045)

Section V, Conditions, Paragraph 8.1.4, Environmental Monitoring, of the application required the licensee to conduct an environmental monitoring program to assess the control of airborne and liquid effluent releases to unrestricted areas. Paragraph 8.14 required the licensee to collect and analyze four quarterly surface water samples, three monthly air particulate samples, five annual soil samples, four quarterly ambient radiation TLDs, four quarterly sediment samples, and four semiannual vegetation samples. Records examined by the inspector (Paragraph 6) indicated that the licensee performed the required sample collection and analysis and that the program was adequate to meet the license conditions. Additionally, the inspector examined the three air monitoring stations, identified as North, East, and South.

Within the areas examined, no violations or deviations were identified.

8. Liquid and Airborne Effluent Sampling, Analysis, and Control (88035)

The inspector examined the facilities and sampling gear used for the determination of radioactivity in liquid and airborne effluents. This examination included a tour of the controlled area effluent sampling station, pellet-loading recirculation sampling station, and the counting lab which consisted of two alpha/beta proportional counters. The inspector noted that the differential pressure monitors associated with the controlled area effluent stream HEPA filters were operating properly and that the differential pressure was below four inches of water.

The liquid effluent control utilized a system of holdup tanks which permitted sampling and analysis of tank contents prior to release. The inspector and a licensee representative examined the two retention tanks located in the liquid waste retention tank building which were used for potentially contaminated fluids. The procedure for contaminated liquid effluent control included steps for air sparging to mix tank contents prior to sampling or discharge; sampling and analysis of tank contents; preparation and approval of release permits; and proper valve alignment required for release.

Within the areas examined, no violations or deviations were identified.

9. Inspector Followup Items (92701)

(Closed) 70-1201/84-05-02: Licensee must submit a report describing the results of the investigation of the contaminated area as specified in License Conditions 22.a and 22.b. The licensee submitted the required report entitled, "Uranium Contamination to Wet Weather Stream from CNFP Liquid Effluent Discharge" in a letter dated November 1, 1984 from D. W. Zeff, Manager, Materials and Facilities, Babcock and Wilcox Company (B&W), Commercial Nuclear Fuel Plant (CNFP) to J. P. O'Reilly, Administrator, Region II, USNRC. Region II staff reviewed the report and acknowledged that fact in a letter dated January 17, 1985 from J. P. Stohr, Director, Division of Radiation Safety and Safeguards, Region II, USNRC to R. A. Alto, Manager, Virginia Operations, Utility Power Generation Division, B&W, CNFP. The inspector reviewed the quarterly sediment monitoring data in the vicinity of sampling location "G" identified in the Commission's Environmental Impact Appraisal for Renewal of Special Nuclear Materials License No. SNM-1168 (NUREG-0987). Although examinations of the implementation of the licensee's control actions will continue during future inspections, this item is considered closed.