



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

Report No. 70-1151/80-03

Licensee: Westinghouse Electric Corporation
Nuclear Fuel Division
Columbia, SC 29205

License No. SNM-1107

Inspected by: AY Gibson
G. L. Troup

2/25/80
Date Signed

Approved by: AY Gibson
A. F. Gibson, Section Chief, FF&MS Branch

2/25/80
Date Signed

SUMMARY

Inspection on February 4-8, 1980

Areas Inspected

This routine, unannounced inspection involved 31 inspector-hours on site in the areas of radiation protection instrumentation, external and internal exposure control, posting and labeling, notifications and reports, unusual occurrences, previous inspection findings and the installation of new ventilation systems.

Results

Of the seven areas inspected, no items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

Licensee Employees

- *M. D'Amore, Plant Manager
- *E. Buonanno, Manager, Chemical Operations
- *W. Britton, Manager, Manufacturing
- *W. J. Hartnett, Manager, Materials
- *W. L. Goodwin, Manager, Regulatory Compliance
- *C. F. Sanders, Manager, Radiological and Environmental Engineering
- L. S. Weatherford, Manager, Health Physics Operations
- *E. K. Reitler, Fellow Engineer
- R. K. Burklin R&E Engineer
- L. Coco, R&E Engineer
- R. Hayes, R&E Engineer
- R. Fischer, R&E Engineer
- H. T. King, R&E Engineer
- J. Heath, R&E Engineer
- G. Lowder, General Supervisor, Chemical Manufacturing
- S. Sabo, Supervisor, Maintenance

Other licensee employees contacted included 4 technicians.

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on February 8, 1980 with those persons indicated in Paragraph 1 above. Regarding the monitoring of filter dP on recirculating air systems (Paragraph 9), Mr. D'Amore stated that the situation would be reviewed and the procedures revised as appropriate and, in the interim, supervisors would be instructed to ensure that this is being done.

3. Licensee Action on Previous Inspection Findings

(Closed) Noncompliance (79-14-01). Failure to Survey. The corrective actions specified in the Westinghouse letter of November 1, 1979, were reviewed with cognizant personnel. The inspector reviewed the report of the low level radioactive waste audit of October 22, 1979, and observed the physical controls on non-radioactive waste containers in outside areas. A licensee representative stated that a program for semi-annual audits of the waste program has been set up and that the implementation of findings from the waste audit were being accomplished in conjunction with the actions of IE Bulletin 79-19. The inspector had no further questions.

(Closed) Noncompliance (79-14-02). Failure to Install Air Sampling Equipment. The corrective actions specified in the Westinghouse letter of November 1, 1979, were reviewed with cognizant personnel. The inspector

reviewed the revised "Controlled Area H.P. and Criticality Checklists", which now includes a verification that the recirculating air systems have operable air samplers installed. The inspector had no further questions.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. External Exposure Control

a. The inspector reviewed the licensee's program for external exposure control, including the review of dosimetry records and exposure history files, observations of control practices, and discussions with licensee personnel. Specific areas inspected were: (1) personnel monitoring requirements of 10 CFR 20.202(a); (2) permissible doses of 10 CFR 20.101(a); (3) extended permissible doses of 10 CFR 20.101(b); (4) exposure history requirements of 10 CFR 20.102; and (5) exposure records of 10 CFR 20.401(a). The inspector reviewed both the report provided by the contractor who provides the dosimetry service and the plant exposure report in determining compliance with the exposure limits. A licensee representative informed the inspector that no one was currently authorized to receive extended doses per 10 CFR 20.101(b). No items of noncompliance or deviations were identified.

b. 10 CFR 20.104 specifies the limits for occupational exposure (external and internal) of minors. A licensee representative informed the inspector that no minors were employed in the radiation controlled areas of the plant. The inspector reviewed the dosimetry printout and determined from the dates of birth that no minors were included in the program. The inspector had no further questions on the exposure of minors.

6. Internal Exposure Control

a. 10 CFR 20.103, 10 CFR 20.201, License Condition 25 and Section 3.2.2 of the license application require the licensee to limit intakes of radioactive material, to perform surveys to verify that concentrations were below limits, and to take actions at specified concentration action points which are below the limits. The inspector reviewed the following records to determine if the required surveys had been performed and applicable actions taken:

(1) "7 Day Summaries - In-Plant Air," for September-December 1979.

(2) "Unusual Occurrence Reports", for October 1979-January 1980.

(3) "Airborne MPC-Hour Average" for the 4th quarter 1979.

(4) "Persons on Work Restriction" for September 1979-January 1980.

No exposures greater than regulatory limits or failure to comply with action levels were identified.

- b. 10 CFR 20.103, License Condition 47 and Section 3.2.3 of license application require the licensee to conduct a bioassay program and to take actions at specified action levels. The inspector reviewed the following records, in addition to those reports listed above, to determine if the bioassay program was being conducted and applicable actions taken:
 - (1) "Monthly Summary Reports-Lung Counts" for September-December 1979.
 - (2) "Personnel Exposure Analysis-Airborne" for October-December 1979.

No exposures greater than the limits or failure to comply with action levels were identified. The inspector also observed that schedules were posted in various areas delineating when individuals were to provide specimens for the bioassay program.

- c. 10 CFR 20.103(b)(1) requires that the licensee use process or other engineering controls, to the extent practicable, to limit concentrations of radioactive materials in air. During tours of plant areas, the inspector observed the installation of new enclosures around process equipment and modifications in the ventilation in the pellet inspection area to reduce airborne levels and discussed the use of these controls with licensee representatives. The inspector had no further questions.

7. Radiation Protection Instrumentation

- a. Sections 2.2.4 and 3.2.1 of the license application requires that the licensee maintain and calibrate radiation survey instruments. 10 CFR 20.103, 10 CFR 20.201(b) and Section 2.2.6 of the license application requires the licensee to perform air sampling. During tours of the work areas, the inspector observed the operability and use of contamination survey instruments at controlled area exits, observed that current calibration stickers were affixed to survey instruments and portable air samplers, and observed the location and operation of various stationary air samplers.
- b. The inspector reviewed the calibration records for portable survey instruments and portable air samplers to verify that the calibrations had been performed at the required frequencies and after repairs. The inspector had no further questions.
- c. In RII report 70-1151/79-14, paragraph 7.b, it was noted that calibration records for air flow meters did not indicate that recalibrations had been performed after maintenance or if the initial calibrations

were out of tolerance. The inspector reviewed the air sampler flow meter calibrations during the fourth quarter and observed that those flow meters requiring corrective action were identified and the records showed that recalibration had been performed after the maintenance. The inspector had no further questions.

8. Ventilation System Modifications

- a. The licensee is presently installing new exhaust ventilation systems for various areas of the plant and a new make-up air system which filters and recirculates the majority of the air and exhausts a portion of the flow. The inspector toured several of the new installations with licensee representatives. As several subsystems were in operation at the time, the inspector verified that air samplers were installed and were operating to monitor the discharges.
- b. The inspector reviewed the contractor's test report for the DOP testing of the filters in the make-up air system conducted on September 20, 1979, which showed a system efficiency of greater than 99.95%. The inspector also discussed the DOP testing of the other new filter installations with the cognizant engineer. The engineer stated that efficiency determinations are being made for the system of filters and that tests are being performed periodically as work on the ventilation system progresses. The inspector discussed the testing with a licensee management representative and stated that the final test results of each filter system should be documented and include DOP results, flow rate verifications and any other tests which are performed. This was acknowledged by the licensee representative, who stated that the test results would be documented (80-03-01).

9. Status of Previously Identified Open Items

(Open) 79-14-03 Recording of Filter dP Data on Recirculating Air Units. The inspector reviewed the dP log sheets for several recirculating air systems in the powder, pellet and QC areas and noted that the readings were not being recorded daily as required by the operating procedures. A licensee representative discussed the loading of the filters and air sample results, both of which indicate that the filter dP will not increase drastically in a short period of time under normal conditions. However, licensee management representatives acknowledged that as the operating procedures require that the dP readings be made and logged daily, personnel should record the readings. A senior representative stated that supervisors would be instructed to carry out these actions until the procedures and other data are reviewed and the procedures left unchanged or revised.

(Closed) 79-14-04 Testing of SCBA Units. IE Circular 79-09 identified a problem with certain types of self-contained breathing apparatus and requested that licensees establish a program for the examination of these devices. The licensee had previously conducted an examination of the units. Procedure RC-205 was revised on December 21, 1979, to include a pressure test of the

diaphragm at six month intervals. A licensee representative informed the inspector that the six month interval was selected rather than a one month interval recommended by NIOSH based on the recommendation of the equipment manufacturer and the fact that the devices are used in a different mode than that in which operating problems have occurred and that the units are inspected monthly for operability as part of the respiratory protection program. The inspector had no further questions.

10. Posting, Labeling and Control

- a. 10 CFR 20.203(b) et seq. specifies the posting and control requirements for radiation areas, high radiation areas, airborne radioactivity areas, and radioactive materials. License Condition 12 specifies the posting requirement for containers in lieu of the requirements of 10 CFR 20.203(f). During tours of the plant areas, the inspector observed that entrances to the restricted area were posted as required and that the entrances to the health physics laboratory area were posted with the required container warning signs.
- b. 10 CFR 19.11 requires that current copies of certain documents be posted or a notice stating where the documents may be examined be posted and that Form NRC-3 be posted. An inspector observed that the required notice and Form NRC-3 were posted in the main hall entrance to the restricted area. The inspector had no further questions.

11. Notification and Reports

- a. 10 CFR 20.405 and 10 CFR 20.408 require that the licensee submit reports to the NRC for overexposures to radiation or radioactive materials and upon termination of work. The inspector discussed the exposure results with a licensee representative, reviewed the external exposure records for the second and third quarters of 1979 and the internal exposure restricted list for 1979 and various personnel exposure files. Based on this review, the inspector determined that no overexposure reports were required and that termination reports were submitted as required by 10 CFR 19.13. The inspector had no further questions.
- b. 10 CFR 20.402 specifies the reporting requirements for the loss or theft of licensed material. The inspector discussed this with a licensee representative. The licensee representative stated that no losses or thefts of NRC licensed material had occurred and that no reports were required.
- c. 10 CFR 20.403 specifies the reporting requirements for incidents involving overexposures or the release of radioactive materials. Based on the review of external exposure records, the inspector determined that no overexposure incident reports were required.