



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

Report Nos. 70-1151/81-04

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

Facility Name: Columbia Plant

Docket No. 70-1151

License No. SNM-1107

Inspection at Columbia, South Carolina

Inspector *G. P. Corbett*  
 G. P. Corbett

*4/20/81*  
 Date Signed

Approved by: *Paul Kellogg*  
 P. J. Kellogg, Acting Chief, Projects Branch 2

*4/21/81*  
 Date Signed

SUMMARY

Inspection on April 7-10, 1981

Areas Inspected

This routine, unannounced inspection involved 25 inspector-hours on site in the areas of organization, operations, 10 CFR 21 implementation, Facility Changes and Modifications, Nuclear Criticality Safety, Safety Committees, Internal Review and Audit and followup on a previous violation.

Results

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

## DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*M. D'Amore, Manager, Columbia Plant
- \*R. Wiggins, Manager, Advanced Manufacturing Planning
- \*W. Goodwin, Manager, Regulatory Compliance
- \*C. Sanders, Manager, Radiological and Environmental Engineering
- \*E. Reitler, Fellow Engineer, R&E
- G. Lowder, General Supervisor, Chemical Manufacturing
- R. Peterson, Supervisor, Chemical Manufacturing
- J. Weatherford, Manager, Health Physics Operations
- H. King, R&E Engineer
- I. Enecio, Process Engineer
- J. Hooper, Safety Supervisor

Other licensee employees contacted included several technicians and operators.

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on April 10, 1981 with those persons indicated in paragraph 1 above.

### 3. Licensee Action on Previous Inspection Findings

(Closed) Noncompliance (80-14-01) failure to complete first-aid training for all shift supervisors and health physics technicians. The inspector verified that all supervisors and health physics technicians have a current three year certificate for the Red Cross multi-media standard first aid course.

### 4. Unresolved Items

Unresolved items were not identified during this inspection.

### 5. Organization

- a. The licensee recently announced the appointment of Mr. W.M. Jacobi to the position of General Manager, Nuclear Fuel Division. Mr Jacobi reports to Mr. J. S. Moore, General Manager, Water Reactor Division.
- b. A recent change in the Columbia plant organization is the appointment of D. Mathews as Safety Manager.

## 6. 10 CFR 21 Implementation

- a. The licensee has approved policies and procedures for evaluation of deviations or safety concerns and informing a responsible officer, procedures establish reporting criteria, posting controls and impose 10 CFR 21 provisions on procurement documents for basic components. The following procedures were examined:
  1. Water Reactor Division procedure WRD-OPR-19.0, rev. 0, dated 7/19/79, Identification and Reporting of Substantial Safety Hazards, Significant Deficiencies and Unresolved Safety Questions.
  2. Nuclear Fuel Division procedure P-710, rev. 6, dated 8/11/80, Identification and Reporting of Substantial Safety Hazard, Significant Deficiencies and Unresolved Safety Questions.
  3. Columbia Plant procedure P-710-1, rev. 1, dated 6/2/78, Identification and Reporting of Substantial Safety Hazards (10 CFR 21) Relative to NFD Licensed Facilities.
  4. Plant Procedure MA318, rev. 1, 4/23/80, Identification, Evaluation and Reporting of Defects and Noncompliance.
  5. Purchasing Form 102, QA and Administrative Requirements.
- b. The inspector verified that an approved list of basic components exists for the Columbia Plant and that the Safety Review Board (SRB) evaluates reported safety concerns and records determinations as to 10 CFR 21 applicability. There have been no evaluations required in the last twelve month period.
- c. The licensee has section 206 of the Energy Reorganization Act of 1974 and 10 CFR 21 notices posted on the facility bulletin board.

## 7. Facility Changes and Modifications

- a. Ten facility changes, completed or in progress, during the period November 1, 1980 to March 1, 1981, were selected for review. Project records were audited for conformance with safety review, evaluation and approval requirements stated in section 2.3.2.3 of the license application. Records were found to include Radiation Work Permits issued as required by license condition No. 20 and a floor plan showing spacing requirements imposed to control neutron interaction as required by license condition No. 37.
- b. Three of the modifications that involved new or relocated processing equipment were inspected for conformance with the project description and criticality safety spacing or size requirements. No deviations were identified.

## 8. Safety Committee

- a. The Regulatory Compliance Committee (RCC) meeting minutes for October and November, 1980 and January and March 1981 were reviewed. Agenda topics include regulatory compliance, license changes, ALARA activities, facility modifications and review of incidents. The plant manager, manager of regulatory compliance and key staff members were in attendance as required by License Condition No. 19.
- b. The semi-annual ALARA report for July 1, 1980 to December 31, 1980, was reviewed by the RCC. Report findings show a continuing downward trend in airborne concentrations of uranium in the controlled area. Plant effluents averaged less than 10% of Part 20 limits and less than 20% of the licensee's action limits.

## 9. Nuclear Criticality Safety

- a. The criticality safety analyses for the facility modifications discussed in paragraph 7, above, were examined and verification made that the methods used were authorized by the license and that calculations were rechecked by a second qualified individual. Records show that a physical inspection had been performed prior to release for operational use.
- b. Confirmation was made that the criticality alarm system has been tested, source checked and calibrated in accordance with plant procedures. The Raschig rings in the quarantine tank have been examined and analyzed as specified in ANSI/ANS-8.5-1979 and the large waste treatment tanks are inspected for sludge buildup and flushed as required on a quarterly schedule.
- c. The inspector observed that SNM subcrits, process equipment and transfer carts were posted with criticality limit signs and no violations of limits were noted.

## 10. Internal Review and Audit

- a. The inspector examined the monthly nuclear criticality safety and radiation protection audit reports. Verification was made that the audits were conducted in accordance with a written plan as required by the license. The reports showed that items requiring corrective action were identified. Responsibilities and completion dates for corrective actions were documented. It was apparent from the reports that most items were corrected at the time of the audit.
- b. Records of the safety audit findings and corrective actions are routinely evaluated by the RCC. The RCC has initiated some procedural changes based on audit findings.

## 11. Operations

- a. The inspector examined operating procedures during tours of the facility and found that current approved procedure were available and did include radiation protection and criticality safety requirements.
- b. The licensee's corrective action for a previously identified violation was reviewed (70-1151/80-14-01). Training records show that all shift supervisors and health physics technicians have qualified for the Red Cross multi-media standard first-aid certificate. The inspector had no further questions on this item.
- c. General housekeeping was good. One potential industrial safety item, an uncovered container of oily rags, was brought to management attention. The licensee took immediate corrective action.