

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

Region I

Report No. 70-1100/78-11

Docket No. 70-1100

Safeguards Group 3

License No. SNM-1067 Priority 1 Category UR

Licensee: Combustion Engineering, Incorporated

P. O. Box 500

Windsor, Connecticut 06095

Facility Name: Nuclear Power Systems - Manufacturing

Inspection at: Windsor, Connecticut

Inspection conducted: November 28-30, 1978

Inspectors: *RLH*

I. Cohen, Chemist

1-03-79

date signed

date signed

date signed

Approved by: *James H. Joyner*

J. H. Joyner, Chief, Nuclear Material Control
Support Section, Safeguards Branch

1-8-79

date signed

Inspection Summary:

Inspection on November 28-30, 1978 (Report No. 70-1100/78-11)

Areas Inspected: Routine, unannounced inspection by a regional based inspector of nuclear material control and accounting including: organization; operations; measurements; storage and internal control; and, management of the materials control system. The inspection involved 20 inspector-hours on site by one NRC regional based inspector.

Results: No items of noncompliance were identified.

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DETAILS

1. Persons Contacted

*Mr. T. B. Bowie, Nuclear Materials Manager
*Mr. G. Kersteen, Nuclear Materials Control Supervisor
Mr. M. R. Thomas, Manager, Quality Control

The inspector also interviewed other members of the production and engineering staffs.

* denotes those present at the exit interview

2. Organization

The inspector reviewed the licensee's organization structure as it appears in the Fundamental Nuclear Material Control Plan (FNMC) and compared it with the licensee's current practice. Positions described in the plan were filled by personnel having the necessary job qualifications. Statements of responsibility have been issued in writing. With regard to the FNMC plan, the licensee stated that there were some minor changes in titles of individuals and job responsibilities which will be submitted prior to January 15, 1979 as revisions to the plan.

No items of noncompliance were identified.

3. Operations

The inspector toured the facility to determine whether plant operations and internal control areas were as specified in the FNMC plan. The inspector also discussed with the licensee the practices and controls employed to assure that scrap materials are being removed from the facility within 12 months of generation.

No items of noncompliance were identified.

4. Measurements and Statistical Controls

The inspector met with the licensee's Quality Assurance personnel and reviewed the licensee's procedure for nondestructive measurement of fuel pins. The procedure is used to provide assurance by the licensee that the fuel pins contain enriched

uranium having the required enrichment. The inspector also observed nondestructive measurements being performed. The weighing of UO₂ powder receipts was discussed with operating personnel by the inspector who also inspected the scale used for weighing the receipts. The inspector reviewed for compliance with the requirement that receipt measurements be completed within 30 days of receipt of this material by reviewing the dates documented by the licensee for shipments ZWQ-ZEF 721, 722 and 723. The receivers' data was dated within 30 days of receipt of these shipments.

The inspector reviewed the annual audit of the contractor performing uranium isotopic analyses for the licensee. The audit was performed by the Quality Assurance group. The audit was documented on a prepared checklist and there were no deficiencies noted by the auditors.

No items of noncompliance were identified.

5. Storage and Internal Control

The licensee has established an automated data collection and data processing system to provide current knowledge of the quantity, identity and location of special nuclear material within the fuel manufacturing operation. The inspector reviewed the method of collecting and presenting data. As a test of the system, the licensee was requested to obtain from the computer system a current listing of items within the storage area. The listing was provided within one hour. The printout showed the item identification, latest location and element and isotope content of the item. Several items were selected at random and observed by the inspector to be located as shown on the printout.

The inspector reviewed the control of distribution and accounting for internal transfer documents and tamper-safing devices.

No items of noncompliance were identified.

6. Management of Materials Control Systems

The licensee's annual material control review was performed by members of the corporation's internal audit group. A written report was issued by the auditors and distributed to licensee management. There were no items of noncompliance noted by the auditors.

No items of noncompliance were identified by the inspector.

7. Exit Interview

An exit interview was conducted on November 30, 1978, with the licensee representatives identified in paragraph 1. The inspector summarized the scope and findings of the inspection.