

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 70-687/85-06

Docket No. 70-687

License No. SNM-639

Safeguards Group: I

Licensee: Cintichem, Inc.

P. O. Box 324

Tuxedo, New York 10987

Facility Name: Sterling Forest Research Center

Inspection At: Tuxedo, New York

Inspection Conducted: August 19-23, 1985

Date of Last Material Control and Accounting Inspection: April 15-19, 1985

Type of Inspection: Routine, Unannounced Material Control and Accounting

Inspector: A. Della Ratta
A. Della Ratta, Safeguards Auditor

10-29-85
date

Approved by: R. R. Keimig
R. R. Keimig, Chief, Safeguards
Section, Nuclear Materials Safety and
Safeguards Branch, DRSS

11-6-85
date

Inspection Summary: Inspection on August 19-23, 1985 (Report No. 70-687/85-06)

Areas Inspected: Routine, unannounced inspection of nuclear material control and accounting including: facility operation and internal controls; physical inventory; and records and reports. The inspection involved 33 inspector-hours by an NRC region-based inspector.

Results: The licensee was in compliance with NRC requirements in the areas examined during the inspection.

DETAILS

1. Key Persons Contacted

J. McGovern, Plant Manager
*C. Konnerth, Manager, Health, Safety and Environmental Affairs
P. O'Callaghan, Supervisor, Quality Control
*J. Ditton, Supervisor, Health Physics
G. Wright, MBA-1 Custodian
J. Musumeci, MBA-2 Alternate Custodian
S. Lupinski, Chief Reactor Operator and MBA-3 Custodian
E. Coon, MBA-4 Custodian

The inspector also interviewed other licensee employees associated with plant operations and nuclear material control.

*present at exit interview

2. 92701 - Licensee Action on Previously Identified Item

(Closed) Inspector Follow-up Item (70-687/85-02-01): Samples taken for physical inventory verification were analyzed by the licensee's laboratory and New Brunswick Laboratory. The inspector compared the laboratories' results and no statistically significant differences in the uranium assay were apparent. However, there was a difference between the laboratories for the isotopic results. This was due to known inaccuracies in the method of analyses employed by the licensee. The difference is less than 0.6% of U-235 which is not significant when calculating shipper-receiver differences since the licensee is not authorized to receive, in any one shipment, more than 700 grams of uranium-235.

3. Exit Interview

The inspector met with the licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on August 23, 1985. The inspector summarized the scope and findings of the inspection. At no time during this inspection was written material provided to the licensee by the inspector.

4. 85205 - Facility Operations and Internal Controls

The inspector determined, through a review of records, that the licensee maintained procedures to ensure that all receipts of special nuclear material (SNM) were accurately accounted for. The Site Accountability Officer was effective in coordinating efforts to ensure that the licensee did not exceed its possession limits.

The licensee confirmed all receipts of SNM within 24 hours, through examination of source documentation and weight verification. The uranium content of receipts was verified within 5 working days, as required. The

licensee had not experienced any significant shipper-receiver differences for the period January 4, 1985 through July 1, 1985. Receipts involved only small quantities of uranium (average 595 grams per receipt).

The DOE/NRC Form-741's, completed for these transactions, were reviewed against criteria for preparing and completing the form, timeliness of issuance, accuracy of data, and authorized signature. No discrepancies were identified.

A review of the licensee's waste operation, by the inspector, established that no material meeting the definition of scrap, as described in 10 CFR 70.4(u), is generated in their process, and, therefore, provisions for scrap control under 10 CFR 70.58(h)(i)(1) and (2) are inapplicable.

5. 85211 - Physical Inventory

On July 1, 1985, the licensee performed a physical inventory of special nuclear material. The previous physical inventory was conducted on May 1, 1985. This was in accordance with the requirements under Section 5.4 of the licensee's Fundamental Nuclear Material Control Plan.

The inspector reviewed the licensee's supporting records for these physical inventories and determined that these inventories were conducted in accordance with approved procedures, were based upon measured values, and were accurately presented within the SNM inventory reports. The master log and MBA logs were reconciled and adjusted to each of the physical inventory results within 30 days.

The inspector performed a verification of the licensee's SNM inventory on August 22, 1985. Inventory line items were selected at random in Material Balance Areas 1, 3, and 4 and cross-checked to book records. No discrepancies were identified.

6. 85215 - Records and Reports

The inspector audited the nuclear material control records and reports for the high enriched uranium physical inventory material balance periods ending May 1, 1985 and July 1, 1985. All line items on the SNM inventory reports were traced to source documents, cross-checked to the records maintained by the licensee, and to DOE-NMMSS computer tabulations. No discrepancies were identified. The Material Status Reports (DOE/NRC Form 742), covering the period ending March 31, 1985, were submitted as required by 10 CFR 70.53.