

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 70-1100/83-05

Docket No. 70-1100 License No. SNM-1067

Licensee: Combustion Engineering, Inc.
P.O. Box 500
Windsor, Connecticut 06095

Facility Name: Combustion Engineering - Nuclear Fuel Manufacturing

Inspection At: Windsor, Connecticut

Inspection Conducted: October 10-14, 1983

Date of Last Material Control and Accounting Inspection: September 6-9, 1983

Type of Inspection: Special US/IAEA Safeguards Inspection

Inspectors: Edward Wolter
for H. Zibulsky, Chemist

11/16/83
date

Approved by: A. T. Gody
A. T. Gody, Chief, Safeguards Section,
Nuclear Materials and Safeguards Branch

11/16/83
date

Inspection Summary:

Inspection on October 10-14, 1983 (Report No. 70-1100/83-05)

Areas Inspected: Special safeguards inspection observing the IAEA routine safeguards inspection, which included: Observation of Physical Inventory, and Inventory Verification. This was conducted in accordance with requirements of the Facility Attachment No. 7, Safeguards Agreement, under the Non-Proliferation Treaty (NPT) between the USA and the IAEA Subsidiary Arrangements. The inspection involved 42 inspector-hours on site by one Region-based NRC inspector and was begun during regular hours.

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

Details

1. Key Persons Contacted

International Atomic Energy Agency (IAEA), Department of Safeguards

M. Farraris, Chief, IAEA North American Section
R. Thiele, Inspector
P. Ikonomou, Inspector
E. Zobor, Inspector
J. Gough, Inspector

Combustion Engineering, Inc.

T. B. Bowie, Manager, Nuclear Materials and Security
G. Kersteen, Manager of Production
H. Cohen, Supervisor, Accountability

U.S. Nuclear Regulatory Commission

P. Morrow, Project Manager for Implementation of US/IAEA
Agreement, SGMT, NMSS
P. Robinson, SGMT, NMSS

The inspector also interviewed or was in contact with other licensee employees involved with nuclear material control and production.

2. 30703 - Exit Interview

No exit interview was held, but the inspector and those IAEA/NRC persons listed in Paragraph 1 summarized the scope and findings of the inspection to the licensee in an informal discussion. At no time during this inspection was written material provided to the licensee by the inspector.

3. 92713 - Independent Inspection Effort

No violations were identified.

This special safeguards inspection was to establish the Facility Attachment No. 7 that will be part of the Safeguards Agreement under the NPT between the USA and the IAEA Subsidiary Arrangements. The Facility Attachment dictates the responsibilities and requirements the licensee and IAEA have for future accountability inspections. The final version of this document will be distributed by NMSS.

4. 85212 - Physical Inventory

No violations were identified.

On October 13, 1983, the licensee performed a physical inventory of special nuclear material.

The IAEA and NRC inspectors observed licensee inventory teams perform the physical inventory in accordance with the licensee's written inventory procedures. The IAEA inspectors calculated the attribute and variables sampling plans for each stratum as physical inventory lists became available. The plans were to be used for inventory verification.

5. 85213 - Inventory Verification

No violations were identified.

The IAEA and NRC inspectors performed a verification of the physical inventory with a cross check of material located in material balance areas to book records.

Three UO_2 powders, five sintered pellets, and two pellets from two rods, that the licensee measured by non-destructive assay, were sampled for licensee analysis during the inventory. Selection of the samples was done in accordance with the IAEA sampling plan. Duplicate samples were also taken for the IAEA, to be sent to their laboratory in Seibersdorf, Austria, and for the NRC, to be sent to the New Brunswick Laboratory. On completion of the U and U-235 analyses by all laboratories, a statistical evaluation will be made (Inspector Follow-Up Item 83-05-01).