

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 70-0036/89002(DRSS)

Docket No. 70-0036

License No. SNM-33

Licensee: Combustion Engineering, Inc.
Nuclear Power Systems
Windsor, CT 06095

Facility Name: Hematite

Inspection At: Hematite, Missouri

Inspection Conducted: August 25, 1989

Inspector: *G. M. France, III*
G. M. France, III,

Approved By: *D. J. Sreniawski*
D. J. Sreniawski, Chief
Nuclear Materials Safety
Section 1

10/02/89
Date
10/11/89
10/02/87
Date

Inspection Summary

Inspection on August 25, 1989 (Report No. 70-0036/89002(DRSS))

Areas Inspected: Routine announced safety inspection (one day) including radiation protection (IP 83822) and operations review (IP 88020).

Results: The licensee continues to provide adequate controls for the health and safety protection of the building contractor.

DETAILS

1. Persons Contacted

- *H. Eskridge, Manager, Nuclear Licensing, Safety and Accountability
- R. Moore, Maintenance Supervisor
- *J. Rode, Plant Manager

*Denotes those members of the licensee's staff attending the exit meeting conducted on August 25, 1989.

2. General

On August 24, 1989, Region III conducted a public meeting at Jefferson Junior College in Hillsboro, Missouri, for the purpose of responding to public concern regarding the licensee's revitalization program. As an adjunct to the meeting, the Fuel Facility Inspector conducted an announced routine inspection at the licensee's CE Hematite facility on August 25, 1989.

The plant operation mode included the production of uranium oxide powder and pellets. The inspector reviewed the radiation protection practices associated with the production of oxide powder and pellets, and the licensee's revitalization program.

3. Licensee Action on Previously Identified Items

The inspector reviewed the progress the licensee had made in correcting open items identified during a previous inspection.

(Closed) 70-0036/88003-01: Assignment of exposure of 28 MPC-hours to two workers because of elevated levels of airborne radioactivity. A overview by the corporate staff included an assessment of radioactivity levels in fecal samples. Their conclusion confirmed the licensee's review that the 40 MPC-hour intake limit for uranium had not been exceeded.

4. Radiation Protection (IP 83822)

The inspector reviewed the licensee's internal exposure program including the required records and notifications. The inspector also observed the licensee's program for preventing the spread of contamination (to the new facility).

a. Internal Exposure Control

A review of bioassay records covering the March through July 1989 operating period indicated that the 40 MPC-hour intake limit for uranium had not been exceeded.

b. Surveys

The licensee established a boundary (marked walkway) for guiding construction workers and/or plant workers to their respective work

areas. According to survey records there was no indication of trafficking excessive levels of radioactive particulate matter to the clean areas. The smears taken in clean areas were less than 1000 dpm/100 cm² for removable contamination.

No violations or deviations were identified.

5. Operations Review

The inspector toured the new facility and observed the licensee's program for ventilation and moisture control in the production of uranium oxide pellets.

The inspector's findings indicated that a process water line in the pellet plant was highly moist with condensate.

The maintenance supervisor stated that the water line was scheduled to be insulated by plant maintenance. The licensee explained the ventilation requirements of the new pellet line and emphasized the areas of concern to control moisture levels. The oxide will be monitored for moisture content with regard to mitigating the moderation of neutrons. In addition to the criticality concern, moisture control is also necessary for proper oxide powder flow.

No violations or deviations were identified.

6. Exit Meeting

The scope and findings of the inspection were discussed with licensee representatives (Section 1) at the close of the onsite inspection on August 25, 1989. The inspector stated that licensee programs in the areas of exposure control and operations as reviewed during this inspection met regulatory requirements.

During the course of the inspection and the exit meeting, the licensee did not identify any documents or inspector statements and references to specific process as proprietary.