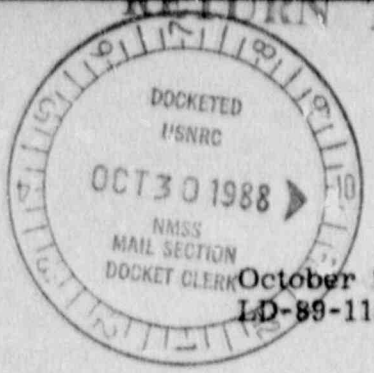
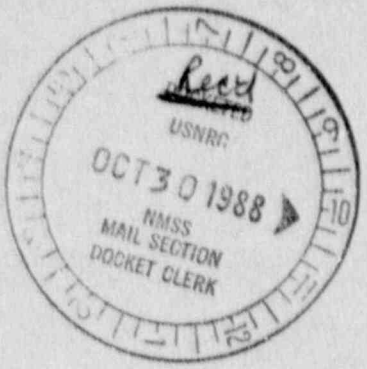
RETURN TO 396-SS
PI-137

70-36
PDR




COMBUSTION ENGINEERING

October 26, 1989
LD-89-116




Docket No. 70-36
License No. SNM-33

Mr. Leland C. Rouse, Chief
Fuel Cycle Safety Branch
Division of Industrial and
Medical Nuclear Safety
Office of Nuclear Material
Safety and Safeguards
U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

Subject: Supplemental Information for Hematite License Amendment Request

Reference: (A) Letter LD-89-049, A. E. Scherer (C-E) to L. C. Rouse (NRC), dated May 1, 1989

(B) Letter LD-89-093, A. E. Scherer (C-E) to L. C. Rouse (NRC), dated August 18, 1989

Dear Mr. Rouse:

In Reference (A), Combustion Engineering submitted a license amendment request for pellet production with enriched uranium in new buildings and equipment at the fuel manufacturing facilities in Hematite, Missouri. In Reference (B), Supplemental Information was provided concerning moderation control. In the enclosures to this letter we are providing additional information about Building 254 dewaxing and sintering, grinding, and packaging that was requested in discussion between Mr. D. McCaughey of your staff and our Mr. J. Conant. Enclosure I to this letter indicates the location that a new page should be added to our Amendment request. Enclosure II contains the additional page to be added. Ten copies of the enclosures are provided for your use.

1/0

DF03

Power Systems
Combustion Engineering, Inc.

1000 Prospect Hill Road
Post Office Box 500
Windsor, Connecticut 06095-0500

(203) 688-1911
Telex: 99297



addt info 26040

If I can be of any assistance on this matter, please do not hesitate to call me or Mr. J. F. Conant of my staff at (203) 285-5002.

Very truly yours,

COMBUSTION ENGINEERING, INC.

E. A. Kennedy
for A. E. Scherer
Director
Nuclear Licensing

AES:lw

Enclosures: As Stated

cc: G. D. France (NRC-Region III)
M. L. Horn (NRC)
D. A. McCaughey (NRC)

Enclosure 1 to
LD-89-116

# COMBUSTION ENGINEERING, INC.

# HEMATITE NUCLEAR FUEL MANUFACTURING FACILITY

# SECOND SUPPLEMENT TO REQUEST FOR LICENSE AMENDMENT

# LOCATION OF ADDED PAGE

**OCTOBER 26, 1989**

Document No. 70-36
License No. SNM-33
October 26, 1989

**HEMATITE NUCLEAR FUEL MANUFACTURING FACILITY**

**SECOND SUPPLEMENT TO REQUEST FOR LICENSE AMENDMENT**

Combustion Engineering requests that the page provided in Enclosure II be added to the May 1, 1989 Amendment Request and August 18, 1989, Supplemental Information on License No. SNM-33 for its Hematite Nuclear Fuel Manufacturing Facility. This page provides information requested concerning Building 254 dewaxing and sintering, grinding, and packaging.

The page provided [with page number II.8-11m(1)] in Enclosure II should be inserted, as an additional page, between pages II.8-11m and II.8-11n of the August 18, 1989 Supplemental Information package.

Enclosure II to
LD-89-116

# COMBUSTION ENGINEERING, INC.

# HEMATITE NUCLEAR FUEL MANUFACTURING FACILITY

# SECOND SUPPLEMENT TO REQUEST FOR LICENSE AMENDMENT

# PROPOSED LICENSE AMENDMENT PAGE

**OCTOBER 26, 1989**

Based on these analyses, it is concluded that an overfill condition, should it occur, has only a small effect on the multiplication factor in a large array of hoppers on 30 inch centers. It is also concluded that a realistic size array of filled bulk storage hoppers loaded with $UO_2$ of 5 w/o enrichment and 1 w/o water is highly subcritical when the hoppers are in physical contact within the array.

8.3.5 Building 254 Dewaxing and Sintering

The boats of randomly loaded pellets pass through two furnace steps; dewaxing to burn off additives and sintering. A controlled atmosphere is maintained in the furnaces. The boats meet the requirements of I.4.2.4 for slab limits.

8.3.6 Building 254 Grinding

The wet grinding process, grinder sludge control and criticality control are similar to that described for Building 255 in Section 8.2.8. Finished pellet inspection may include an alternate optical measurement of pellet dimensions.

8.3.7 Building 254 Packaging

Pellets are arranged onto corrugated trays or loaded into pans that are stacked in a lifting cradle. The cradle is weighed and then lowered into a shipping container through a transfer port that separates Building 254 from the clean warehouse Building 256. The pellets are packaged in licensed shipping containers in accordance with the applicable certificate of compliance.

DOCKET NO. 70-36

CONTROL NO. 26040

DATE OF DOC. October 26, 1989

DATE RCVD. October 30, 1989

FCUF ✓ PDR ✓

FCAF _____ LPDR _____

I & E REF. ✓

SAFEGUARDS ✓

FCTC _____ OTHER _____

DATE 10/30/89 INITIAL SAC