



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

December 20, 1995

Mr. Robert W. Sharkey, Manager  
Regulatory Compliance  
Hematite Nuclear Fuel Manufacturing  
Combustion Engineering, Inc.  
3300 State Road P  
Hematite, MO 63047

SUBJECT: BRANCH TECHNICAL POSITIONS (TAC NO. L30801)

Dear Mr. Sharkey:

In accordance with your application dated July 27, 1995, and pursuant to Part 70 to Title 10 of the Code of Federal Regulations, Materials License SNM-33 is hereby amended to include a commitment for performing a portion of an Integrated Safety Assessment in which the NRC Branch Technical Positions on Requirements for Operation will be considered. Accordingly, Safety Condition S-1 is revised to include the date of July 27, 1995.

All other conditions to this license remain the same.

Enclosed are copies of revised Materials License SNM-33 and the Safety Evaluation Report, which includes the Categorical Exclusion determination.

Sincerely,

Robert C. Pierson, Chief  
Licensing Branch  
Division of Fuel Cycle Safety  
and Safeguards, NMSS

Docket 70-36  
License SNM-33  
Amendment 10

Enclosures: 1. Materials License SNM-33  
2. Safety Evaluation Report

g-33

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 Hematite Nuclear Fuel Manufacturing  
 Combustion Engineering, Inc.  
 3300 State Road P  
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Tim R. *[Signature]*  
 Docket File 070-0003

FILE

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Original signed by:

Robert C. Pierson, Chief  
 Licensing Branch  
 Division of Fuel Cycle Safety  
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 Amendment 10

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DATE	12/20/95	12/20/95	12/20/95	12/20/95				

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DEC 26 1995

**MATERIALS LICENSE**

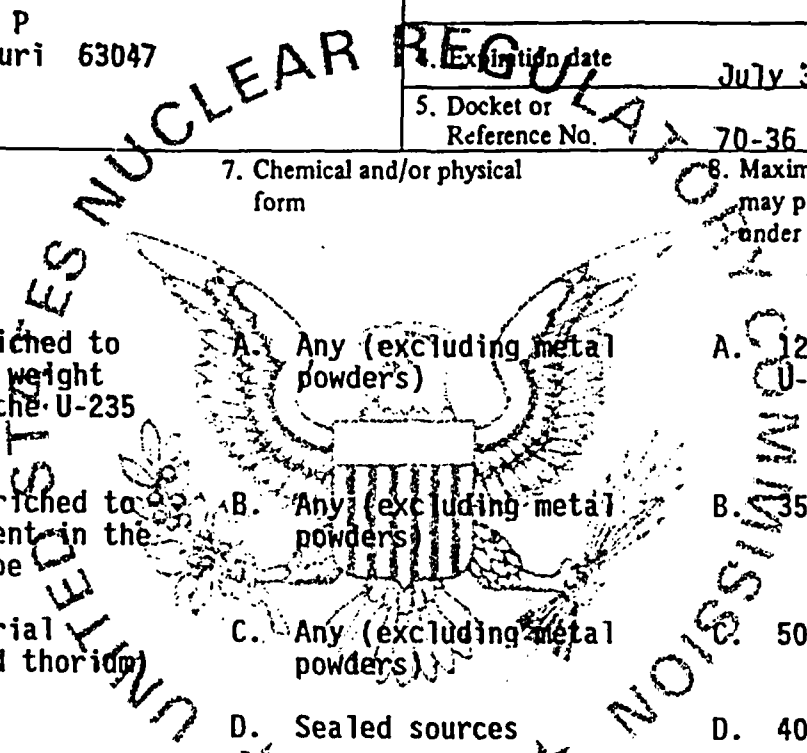
Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 39, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee			
1. Combustion Engineering, Inc.		3. License number	SNM-33 Amendment 10
2. 3300 State Road P Hematite, Missouri 63047		4. Expiration date	July 31, 2004
		5. Docket or Reference No.	70-36

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
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- |  |                                  |                           |
|--|----------------------------------|---------------------------|
| A. Uranium enriched to maximum 5.0 weight percent in the U-235 isotope       | A. Any (excluding metal powders) | A. 12,000 kilograms U-235 |
| B. Uranium, enriched to any enrichment in the U-235 isotope                  | B. Any (excluding metal powders) | B. 350 grams U-235        |
| C. Source material (uranium and thorium)                                     | C. Any (excluding metal powders) | C. 50,000 kilograms       |
| D. Cobalt-60   | D. Sealed sources                | D. 40 millicuries,        |
| E. Cesium-137  | E. Sealed sources                | E. 500 millicuries        |
| F. Mixed activation and fission product calibration sources including Am-241 | F. Solid sources                 | F. 200 microcuries        |
| G. Californium-252   | G. Sealed sources                | G. 4 milligrams           |

9. Authorized place of use: The licensee's existing facilities in Hematite, Missouri, as described in the license renewal application.

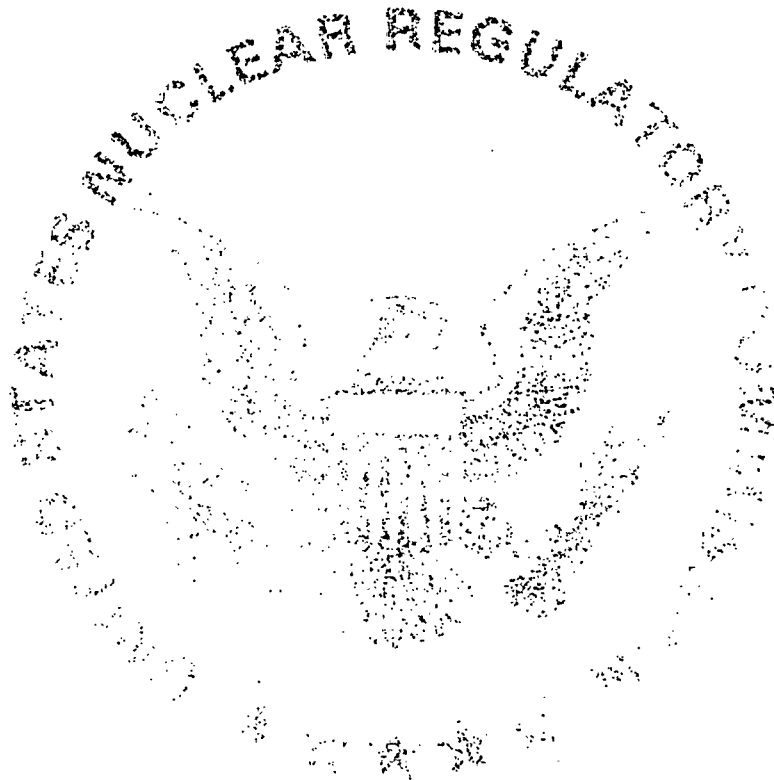


**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number  
SNM-33 Amendment 10

Docket or Reference Number  
70-36

10. The license shall be deemed to contain two sections: Safety Conditions and Safeguards Conditions. These sections are part of the license, and the licensee is subject to compliance with all listed conditions in each section.



FOR THE NUCLEAR REGULATORY COMMISSION

Date: 20 DEC 1995

By: *Robert C. Pierson*  
Robert C. Pierson  
Division of Fuel Cycle Safety  
and Safeguards, NMSS  
Washington, DC 20555

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number  
SNM-33 Amendment 10

Docket or Reference Number  
70-36

**SAFETY CONDITIONS**

**SAFETY CONDITIONS**

- S-1. Authorized use: For use in accordance with the statements, representations, and conditions in Chapters 1 through 8 of the application dated October 29, 1993, and supplements dated November 24, 1993; January 14, January 28, March 21, April 20, June 14, October 24, and October 26, 1994; and January 28, February 27, March 10, April 24, July 27, and October 31, 1995.
- S-2. The licensee shall conduct an evaluation to determine the source of the contamination to burial site well #4, as shown in Figure 13-2 of the application dated March 21, 1994, and shall identify the contaminants in the groundwater. The findings of the evaluation shall be submitted to the NRC within 180 days of the issuance of this renewed license.
- S-3. Deleted - Hematite Evaporation Ponds Decommissioning Plan approved by Amendment 4 dated May 1995.
- S-4. The licensee is hereby granted the special authorizations in Chapter 1, Section 1.6(a) through 1.6(g) of the renewal application.
- S-5. Notwithstanding the requirement of 10 CFR 70.22(i)(3)(xii) to conduct a biennial emergency exercise (BEE), the licensee may delay by 4 months its BEE scheduled for December 31, 1995. The BEE must be held prior to April 30, 1996.

MATERIALS LICENSE  
SUPPLEMENTARY SHEETLicense Number  
SNM-3 Amendment 10Docket or Reference Number  
70-36

## SAFEGUARDS CONDITIONS

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Section 1.0 - Material Control & Accounting

- SG-1.1 The licensee shall follow Sections 1.0 through 9.0 of its Fundamental Nuclear Material Control Plan dated April 28, 1995. Any revisions to this Plan shall be made only in accordance with the provisions of either 10 CFR 70.32(c) or 70.34.
- SG-1.2 Notwithstanding the requirements of 10 CFR 74.31(c)(5) and section 5.3.1 of the Plan identified in Condition SG-1.1, the licensee may delay the start of its 1995 physical inventory beyond the currently scheduled deadline of August 15, 1995, so as to start on or before October 25, 1995. To compensate for this delay, the licensee's 1996 physical inventory shall be initiated no later than July 15, 1996.
- SG-1.3 Notwithstanding the requirement of 10 CFR 74.31(c)(8) to independently assess the effectiveness of the material control and accounting system at least every 24 months, the latest due date for issuance of the assessment team report for the next required assessment may be delayed from May 21, 1995, to July 21, 1995.
- SG-1.4 Notwithstanding the commitment in Section 4.3.1 of the Plan identified in Condition SG-1.1 regarding receipt measurements of UF<sub>6</sub>, the licensee may, for the UF<sub>6</sub> shipment specifically identified in its August 14, 1995 letter (from R. W. Sharkey to R. C. Pierson), modify the methodology of determining receiver's values for uranium concentration and U-235 enrichment. In lieu of the measurements normally utilized for UF<sub>6</sub> shipper-receiver comparisons, the licensee may derive its U-235 enrichment measurement from two samples of the UO<sub>2</sub> produced from each UF<sub>6</sub> cylinder in question, and may derive its percent uranium value by using a nominal (historical average) uranium element concentration for UF<sub>6</sub> receipts. The percent uranium and the U-235 isotopic weight fractions thus obtained will be applied to the licensee's cylinder weight measurements to obtain net weight of uranium element and U-235 isotope for each cylinder in the shipment. If no significant shipper-receiver difference (as defined in Section 7.2.5 of the licensee's FNMC Plan) exists, shipper's values may be booked by the licensee.

Section 2.0 - Physical Protection for SNM of Low Strategic Significance

- SG-2.1 The licensee shall follow the security plan entitled "Physical Security Plan for Protection of Nuclear Material of Low Strategic Significance" dated May 1980, as revised by Revision 3 dated November 1992 (letter dated November 12, 1992), and as revised in accordance with the provisions of 10 CFR 70.32(e).
- SG-2.2 The licensee shall ensure that the surveillance tour, conducted by the guards or authorized person in accordance with Section 3.1.1, includes surveillance over the UF<sub>6</sub> outdoor storage area.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

December 20, 1995

DOCKET: 70-36

LICENSEE: Combustion Engineering, Inc. (CE)  
Hematite, Missouri

SUBJECT: SAFETY EVALUATION REPORT: APPLICATION DATED JULY 27, 1995, BRANCH  
TECHNICAL POSITIONS

**BACKGROUND**

CE commits in the license SNM-33 to evaluate its safety program against the NRC Branch Technical Positions (BTP): "Guidance On Management Controls/Quality Assurance, Requirements for Operation, Chemical Safety, and Fire Protection for Fuel Cycle Facilities," Federal Register, March 21, 1989, as modified with respect to fire safety per "Guidance on Fire Protection for Fuel Cycle Facilities," Federal Register, August 10, 1992. CE commits also to propose a license condition as a result of that evaluation. By application dated July 27, 1995, CE complied with above commitment.

**DISCUSSION**

The BTP established guidance for fuel cycle facilities on (1) operation, (2) management controls/quality, (3) chemical safety, and (4) fire safety. CE has evaluated its safety program against the BTP and committed to consider the incorporation of the BTP guidance on operation into its program. Specifically, CE commitments include performing a portion of an Integrated Safety Analysis (ISA) for the plant processes that will address the following elements for equipment important to safety:

1. operational parameters important to safety, and limiting specifications for these parameters;
2. documentation of the basis for important-to-safety requirements for operation; and
3. programs for testing, calibration, and inspection of all instrumentation and control systems important to safety to assure their reliability.

The staff has reviewed CE's commitment and determined it is acceptable.

CE has not made commitments to the remaining guidance in the BTP. However, CE indicates in the evaluation that CE intends to include fire hazards analysis and chemical safety as part of the plant wide ISA. CE has also developed a Pre-Fire plan, which is part of the plant's emergency implementing procedures. As regards to the BTP on Management/Quality, CE indicates that its current organization, administrative procedure and safety program in the license covers this BTP.

The staff has reviewed CE's evaluation and has determined that it meets the license commitment and is, thus, acceptable.

#### ENVIRONMENTAL REVIEW

The staff has determined that the proposed changes are procedural in nature and do not adversely affect the public health and safety or the environment. Therefore, in accordance with 10 CFR 51.22(c)(11), neither an environmental assessment nor an environmental impact statement is warranted for this action.

#### CONCLUSION

Based on the above discussion, the staff concludes that the licensee's request will have no adverse effect on the public health and safety, or the environment. Approval of the amendment application is recommended.

The Region III staff has no objection to this licensing action.

Principal Contributor  
Sean Soong