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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001  
February 6, 1997

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

SUBJECT: REQUEST FOR TEMPORARY CHANGE TO UF<sub>6</sub> RECEIPT SAMPLING PROCEDURE  
(TAC NO. L30916)

Dear Mr. Sharkey:

In accordance with your amendment request dated October 10, 1996, and pursuant to Part 70 to Title 10 of the Code of Federal Regulations (CFR), Materials License SNM-33 is hereby amended to allow receipt of four uranium hexafluoride cylinders under work order GES 3102 without providing for an independent witness sampling of those cylinders. This amendment request was submitted and approved pursuant to the provisions of 10 CFR 70.34. The granting of your request was based on our determination that your substitute measures were acceptable and justified in view of specific circumstances. Accordingly, Safeguards Condition SG-1.7 is incorporated into your license, and reads as follows:

SG-1.7 Notwithstanding the requirements of Condition SG-1.1, and in accordance with a letter dated October 10, 1996, the licensee is not required, per Section 4.3.1 of the Plan, to provide for "witnessed sampling" of the UF<sub>6</sub> cylinders received under work order GES 3102. As an alternate safeguards measure, the licensee will analyze two samples of UO<sub>2</sub>F<sub>2</sub> produced from each cylinder during its conversion process to confirm the vendor's measurement of U-235.

Please note that Safeguards Conditions SG-1.2, SG-1.3, SG-1.4, and SG-1.5 are no longer applicable, and have been deleted. This amendment was discussed in a telephone conversation between you and Mr. Sean Soong of my staff on January 28, 1997, and was determined to be acceptable to you.

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Mr. Robert W. Sharkey

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All other conditions of this license shall remain the same.

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

Sincerely,

Original signed by:

Michael F. Weber, Chief  
Licensing Branch  
Division of Fuel Cycle Safety  
and Safeguards, NMSS

Docket 70-36  
License SNM-33  
Amendment 16

Enclosures:

1. Materials License SNM-33
2. Safeguards Evaluation Report

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Mr. Robert W. Sharkey

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All other conditions of this license shall remain the same.

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

Sincerely,

A handwritten signature in cursive script, appearing to read "Michael F. Weber".

Michael F. Weber, Chief  
Licensing Branch  
Division of Fuel Cycle Safety  
and Safeguards, NMSS

Docket 70-36  
License SNM-33  
Amendment 16

Enclosures:

1. Materials License SNM-33
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## 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 16
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
A. Uranium enriched to maximum 5.0 weight percent in the U-235 isotope	A. Any (excluding metal powders)	A. 20,000 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 16

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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: FEBRUARY 6, 1997

By:

*Michael F. Weber*

Michael F. Weber

Division of Fuel Cycle Safety  
and Safeguards, NMSS  
Washington, DC 20555

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

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**SAFETY CONDITIONS**

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- 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; January 28, February 27, March 10, April 24, July 27, October 31, and December 15, 1995; and January 26, May 29, and October 23, 1996.
- 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. Deleted - The 4-month delay in completion date of biennial emergency exercise was deleted by Amendment 13 dated June 1996.

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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 Deleted - This was deleted by Amendment 16 dated February 1997.
- SG-1.3 Deleted - This was deleted by Amendment 16 dated February 1997.
- SG-1.4 Deleted - This was deleted by Amendment 16 dated February 1997.
- SG-1.5 Deleted - This was deleted by Amendment 16 dated February 1997.
- SG-1.6 Deleted - This was deleted by Amendment 14 dated July 1996.
- SG-1.7 Notwithstanding the requirements of Condition SG-1.1, and in accordance with a letter dated October 10, 1996, the licensee is not required, per Section 4.3.1 of the Plan, to provide for "witnessed sampling" of the  $UF_6$  cylinders received under work order GES 3102. As an alternate safeguards measure, the licensee will analyze two samples of  $UO_2F_2$  produced from each cylinder during its conversion process to confirm the vendor's measurement of U-235.

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  $UF_6$  outdoor storage area.

Section 3.0 - International Safeguards

- SG-3.1 The licensee shall follow all sub-codes within Codes 1 through 6 of the Transitional Facility Attachment No. 14A, with the date of entry into force of December 4, 1995, to the US/IAEA Safeguards Agreement.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

February 6, 1997

DOCKET: 70-36

LICENSEE: Combustion Engineering Inc.  
Hematite, Missouri

SUBJECT: SAFEGUARDS EVALUATION REPORT: REQUEST DATED OCTOBER 10, 1996,  
TEMPORARY CHANGE TO UF<sub>6</sub> RECEIPT SAMPLING PROCEDURE

BACKGROUND

By a letter dated October 10, 1996, the licensee submitted a similar request for a previously granted temporary license condition, Condition SG-1.5. This request pertains to a conditional amendment from Section 4.3.1 of the licensee's Fundamental Nuclear Material Control (FNMC) Plan to provide for "witnessed sampling" of UF<sub>6</sub> cylinders received under work order GES 3102. This work order consists of four cylinders of 4.0 percent enriched UF<sub>6</sub>.

DISCUSSION

This request is a reinstatement of a similar circumstance associated with previous work order GES 3048 in March 1996.

The licensee's immediate need for the material has prompted them to accept UF<sub>6</sub> cylinders that have already been filled and sampled by the vendor, the Portsmouth Gaseous Diffusion Plant, and can not be readily "witness sampled." Witness sampling is a normal practice that the licensee provides for an independent agent to witness the sampling at the vendor in order to ensure the sample represents the UF<sub>6</sub> contained in the cylinders to be shipped. In lieu of witnessed sampling, the licensee proposed, for each of the cylinders introduced into its conversion line, to analyze two samples of uranyl fluoride (UO<sub>2</sub>F<sub>2</sub>) for enrichment.

Although the licensee would not witness the sampling of the cylinders, they would still adhere to other requirements of Section 4.3.1 of their FNMC Plan pertaining to UF<sub>6</sub> receipt. This includes inspection of tamper-safing seals, weighing each cylinder upon receipt, confirmatory measurement values of U and U-235, and evaluation of shipper-receiver differences.

The staff has determined that the licensee's alternate safeguards measure is acceptable, and granting of the licensee's request will not significantly impact the licensee's safeguards program.

ENVIRONMENTAL REVIEW

The staff has determined that the granting of this temporary requested modification will not adversely affect public health and safety, the common defense and security, or the environment and is otherwise in the public



interest. The provisions in 10 CFR 51.22(c)(12) cite an exclusion for safeguards plans and material accountability. Therefore, neither an environmental assessment nor an environmental impact statement is warranted for this action.

#### CONCLUSION

The staff concludes that the licensee's request for an amendment to the witness sampling requirements of Section 4.3.1 of their FNMC Plan for the UF<sub>6</sub> cylinders received under work order GES 3102 will not compromise their MC&A program, and in view of the circumstances is justified. Therefore, new Safeguards Condition SG-1.7 is being issued to read as follows:

SG-1.7        Notwithstanding the requirements of Condition SG-1.1, and in accordance with a letter dated October 10, 1996, the licensee is not required, per Section 4.3.1 of the Plan, to provide for "witnessed sampling" of the UF<sub>6</sub> cylinders received under work order GES 3102. As an alternate safeguards measure, the licensee will analyze two samples of UO<sub>2</sub>F<sub>2</sub> produced from each cylinder during its conversion process to confirm the vendor's measurement of U-235.

In addition, four Safeguards Conditions SG-1.2, SG-1.3, SG-1.4, and SG-1.5 pertained to different previously approved one-time changes in MC&A practices, and are now no longer applicable. These Safeguards Conditions have been deleted by this amendment action.

The Operations Branch (FCOB) inspection staff has no objection to this proposed action.

#### PRINCIPAL CONTRIBUTOR

Thomas N. Pham

*M. L. F. Weller*  
2/6/97