

**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, 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. Cintichem, Inc.		3. License number SNM-639 as renewed Amendment No. 3 February 12, 1988
2. Sterling Forest Research Center Tuxedo, New York 10987		4. Expiration date October 31, 1989
		5. Docket or Reference No. 70-687

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-233	A. Encapsulated Sources	A. 10 grams
B. Uranium enriched in the U-235 isotope (> 20 percent enriched)	B. Any form (may be in the form of irradiated material with associated by product material)*	B. 23 kilograms of contained U-235**
C. Plutonium	C. Encapsulated Sources	C. 2 milligrams of Pu-238 10 grams Pu-239 2 milligrams Pu-241 80 grams Pu-Be neutron source

\*SNM mingled with radioactive material between Atomic Nos. 3 and 83 inclusive provided possession of the latter has been authorized under New York State License No. 729-0322.

\*\*Unself-protected U-235, possessed under this condition, is limited such that the total quantity of unself-protected U-235 at the site, including that possessed under Reactor License No. R-81, does not exceed 4.99 kilograms.

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**MATERIALS LICENSE**  
SUPPLEMENTARY SHEET

License number

SNM-639

Docket or Reference number

70-687

FEB 12 1988

9. Authorized Use

For use in accordance with statements, representations and conditions contained in Part I of the revised application (Consolidated Application) submitted on June 6, 1984, and as amended on July 16, 1984, September 6, 1984, August 20, 1985, and November 12, 1987, except as modified by the conditions of this license. The effective pages of Part I of the application are identified in Appendix A of this license.

10. Insofar as applicable to radioactive materials subject to the authorities of this license and NRC regulations, the release of facilities, equipment and material from Building 2 to offsite, or from controlled to uncontrolled areas onsite, shall be in accordance with Appendix B (attached), "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use of Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated July 1982. Records of the contamination survey and the final disposition of any equipment shall be kept for inspection by the NRC.

11. Upon completion of the decontamination of facilities in accordance with §70.38 of Title 10 of the Code of Federal Regulations, the licensee shall submit with the report required by that regulation information that identifies all facilities where radioactive materials were used and stored, or disposed on the site. The report shall briefly describe operations conducted and radioactive materials used in the facilities and shall assess the results of the decontamination activities. The report shall provide the basis for unrestricted release of the facilities and instrumentation used, and shall include final contamination survey data for the facilities and grounds.

12. In addition to the reporting requirements specified on page I.8-1 of the application, the licensee shall provide a copy of any changes to the Radiological Contingency Plan to the Director, Division of Industrial and Medical Nuclear Safety, NRC.

13. The licensee shall provide to the NRC copies of its annual report summarizing the results of analyses of radiological environmental monitoring samples. This report shall be sent to the Director, Division of Industrial and Medical Nuclear Safety, U.S. NRC, Washington, D. C. 20555, and to the NRC Region I Office at the address specified in Appendix D of 10 CFR Part 20.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 3  
Date: February 12, 1988

By: Richard C. House  
Division of Industrial and  
Medical Nuclear Safety  
Washington, DC 20555

Appendix A

List of Effective Pages  
Cintichem, Inc.  
SNM-639

Part I--License Conditions

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\*Revised February 12, 1988  
Amendment 3

PART I - LICENSE CONDITIONS

CHAPTER 1 - STANDARD CONDITIONS AND SPECIAL AUTHORIZATIONS

- 1.1 License: Union Carbide Corporation
- 1.2 Location: Sterling Forest Laboratory  
P. O. Box 324  
Tuxedo, New York 10987
- 1.3 License No.: SNM-639
- 1.4 Possession Limits:

	<u>Type of SNM</u>	<u>Chemical and/or Physical Form</u>	<u>Amount (Maximum)</u>
A.	Uranium 233 (>20 percent enriched)	Encapsulated Sources	10 g
B.	Uranium - 235 (>20 percent enriched)	Any	23 kg <sup>*</sup>
C.	Plutonium	Encapsulated Sources	Two (2) mg Pu-238 Ten (10) g P-239 Two (2) mg Pu-241 Eighty (80) g as Pu-Be neutron source
D.	Any Radioactive Material between Atomic Nos. 3 and 83 inclusive mingled with SNM and auth- orized for pos- session under NYS Byproduct Material License No. 729-0322	Any	150,000 ci <sup>1</sup>

<sup>1</sup> Safety analyses considered the presence of by-products of fission in those plant areas and those process steps where they are mingled with SNM. By-product Material is licensed under New York Code Rule 38.

<sup>\*</sup> Unself-protected U-235, possessed under this condition, is limited such that the total quantity of unself-protected U-235 at the site, including that possessed under Reactor License No. R-81, does not exceed 4.99 kilograms.