

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, 36, 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 person, 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		2. License Number
1. Cintichem, Inc.		SNM-639 Amendment No. 10
2. Sterling Forest Research Center Tuxedo, NY 10987		4. Expiration Date December 15, 1996
		5. Decree or Reference No. 070-00687
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-235 (≥ 20% enriched)	A. Any form	A. 350 gm of contained U-235
B. Plutonium	B. Encapsulated Sources	B. 80 gm Pu-Re neutron source
C. Any Radioactive Material between Atomic Nos. 3 and 83 inclusive mingled with SNM and authorized for possession under New York State byproduct license No. 729-0322	C. Any	
9. Authorized Use: For possession and storage at the site of the Cintichem, Inc. facility in Tuxedo, NY. Use as necessary in the decommissioning of the reactor building, hot laboratory building and waste storage building and areas associated with the operations carried out under license SNM-639.		
10. Conditions:		
A. Licensed material shall be possess, used and stored at the Cintichem, Inc. facility located on Long Meadow Road in Tuxedo, NY.		

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10. Conditions:

B. Licensed material shall be used or under the supervision of the decommissioning Project Manager.

C. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including all enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern, unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.

- | | |
|------------------------|---------------------------|
| 1. October 19, 1990. | 18. November 6, 1992. |
| 2. January 11, 1991. | 19. December 15, 1992. |
| 3. January 14, 1991. | 20. July 15, 1993. |
| 4. January 28, 1991. | 21. August 26, 1993. |
| 5. February 19, 1991. | 22. August 27, 1993. |
| 6. March 8, 1991. | 23. October 1, 1993. |
| 7. April 17, 1991. | 24. January 3, 1994. |
| 8. April 24, 1991. | 25. February 1, 1994. |
| 9. May 21, 1991. | 26. March 31, 1994. |
| 10. June 25, 1991. | 27. October 17, 1994. |
| 11. July 17, 1991. | 28. December 8, 1994. |
| 12. August 6, 1991. | 29. December 16, 1994. |
| 13. October 2, 1991. | 30. November 14, 1996. |
| 14. January 8, 1992. | 31. February 20, 1997. |
| 15. February 19, 1992. | 32. December 3, 1997, and |
| 16. July 15, 1992. | 33. December 4, 1997. |
| 17. October 22, 1992. | |

D. In addition to the statements, representations and procedures made in the aforementioned letters, the licensee will conduct decommissioning operations, in accordance with the statements, representations and procedures outlined in the licensee's request to renew license SNM-639 dated September 15, 1989, and letter dated June 29, 1990, unless the statements, representations and procedures, in the aforementioned letters, are not appropriate to the decommissioning activities or the Commission's regulations are more restrictive.

E. The licensee may make minor changes to the conditions described in this license, without a license amendment, provided that:

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1. These changes do not involve an unreviewed safety question;
2. The changes do not cause a significant increase in radiation exposure to employees or;
3. The changes do not cause a decrease in the protection of the public health and safety and the environment offered by the existing license condition.

A change shall be deemed to involve an unreviewed safety question, if an accident analysis for the change: (i) results in consequence values exceeding the values of the accident analysis described in the licensee's decommissioning plan, as supplemented, or the probability of occurrence for the types of events there evaluated is judged to increase; (ii) reveals a possibility for an accident of a different type, than previously evaluated or; (iii) the margin of safety defined in the basis for any technical specification is reduced.

Prior to initiating any changes to the license conditions allowed under Condition E, the licensee shall prepare a safety evaluation of the effect of the change. This evaluation shall be reviewed and approved by the licensee's Nuclear Safeguards Committee and, as appropriate, the licensee's Radiation Safety/ALARA Committee, and shall provide the basis for determining that the change will not involve an unreviewed safety question, a significant increase in radiation exposure to employees or a decrease in the protection of the public health and safety and the environment offered by the existing license condition. Records of evaluations and approvals of changes shall be maintained by the licensee.

- F. The licensee shall decontaminate the reactor building, hot laboratory building, waste building and areas associated with the operations carried out under license SNM-639 to the unrestricted release criteria outlined in Table 5 of Section 38.29 of 12 NYCRR 38. In those instances where NRC and New York State criteria differ, the more restrictive criteria will apply. In addition to the criteria outlined above, the licensee shall ensure that:

1. Prior to demolition all buildings and structures exhibit exposure rates of less than 5 μ R/hr above background at one meter;
2. The results of all soil characterization data are submitted to, approved by, and verified by NRC prior to release of the site. NRC's evaluation will ensure that exposure to this soil will not result in a dose to the

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public in excess of the criteria established in Condition G, following unrestricted release of the site.

- G. The licensee shall develop residual soil contamination limits that the licensee intends to use as unrestricted release criteria. Those criteria will be based on the principle that residual contamination shall be as low as reasonably achievable (ALARA). The licensee shall submit these limits to NRC for evaluation, within 6 months of the effective date of this amendment. This deadline may be extended by the Commission, if the licensee demonstrates good cause based on technical feasibility (including circumstances that arise which were not foreseeable or were beyond the control of the licensee). Upon review and approval by NRC, the licensee shall ensure that all soil remaining on-site at the completion of the decommissioning operations is within these criteria.
- H. Deleted.
- I. The licensee shall maintain records of information important to safe and effective decommissioning at the Cintichem facility located on Long Meadow Road in Tuxedo, NY per the provisions of 10 CFR §70.38.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: February 2, 1998By: *John W. N. Hickey*

John W. N. Hickey, Chief
Low-Level Waste and Decommissioning
Projects Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

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FOR THE NUCLEAR REGULATORY COMMISSION
[Original signed by]

Date: February 2, 1998

By: _____

John W. N. Hickey, Chief
Low-Level Waste and Decommissioning
Projects Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

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