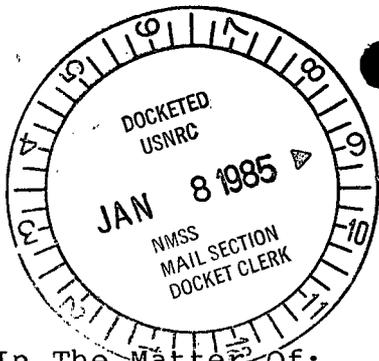


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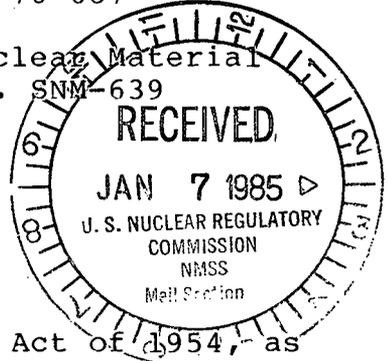


UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In The Matter Of:

UNION CARBIDE CORPORATION )  
(Sterling Forest Research Reactor) )

) Docket No. 70-687  
)  
) Special Nuclear Material  
) License No. SNM-639



JOINT APPLICATION FOR TRANSFER OF  
SPECIAL NUCLEAR MATERIAL LICENSE

Pursuant to Section 184 of the Atomic Energy Act of 1954, as amended (42 U.S.C. § 2234) and 10 CFR § 70.687 of the Nuclear Regulatory Commission's ("NRC") regulations, Union Carbide Corporation (UCC) a Delaware Corporation and holder of NRC Special Nuclear Material License No. SNM-639 in accordance with which UCC possesses and uses special nuclear material in conjunction with its operation of a five (5) megawatt research reactor in Sterling Forest, New York, and Cintichem, Inc. ("Cintichem"), a Delaware corporation, request that NRC Special Nuclear Material License No. SNM-639, and all amendments thereto be transferred to Cintichem for the purpose of continued ownership and operation of the Sterling Forest Research Reactor by Cintichem.

On October 30, 1984, the President of the United States signed into law a bill (S. 1291) to authorize appropriations to the NRC for fiscal years 1984 and 1985. S. 1291 was passed by the U.S. Senate on October 10, 1984, and by the U.S. House of Representatives on October 11, 1984. The NRC Authorization Act, P.L. 98-553, at Section 109 states:

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Applicant.....	
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Amount/Fee Category	1/10
Type of Fee	Am D
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Sec. 109. Notwithstanding the second sentence of section 103d and the second sentence of section 104d of the Atomic Energy Act of 1954, as amended, the Nuclear Regulatory Commission is hereby authorized to transfer Facility Operating License Number R-81 to a United States entity or corporation owned or controlled by a foreign corporation if the Commission -

(1) finds that such transfer would not be inimical to the common defense and security or to the health and safety of the public; and

(2) includes in such license, as transferred, such conditions as the Commission deems necessary to ensure that such foreign corporation cannot direct the actions of the licensee in ways that would be inimical to the common defense and security or the health and safety of the public.

A joint application is being filed concurrently herewith for transfer to Cintichem of Facility Operating License No. R-81. The transfer of Special Nuclear Material License SNM-639, however, is not dependant upon the language of P.L. 98-553, since neither the Atomic Energy Act of 1954, as amended, nor NRC regulations prohibit a United States entity or corporation owned or controlled wholly or partly by a foreign corporation from obtaining or possessing a Special Nuclear Material license.

The information, required by 10 CFR § 70 of the NRC regulations, with respect to the applicants is as follows:

1. Name of Applicant:

Cintichem, Inc., a Delaware Corporation

2. Address of Applicant:

P. O. Box 816  
Tuxedo, New York 10987

3. Description of Business of Applicant:

- a. Joint Applicant UCC: Development and production of medical and industrial isotopes.
- b. Joint Applicant Cintichem: Development and production of radiopharmaceuticals.

4. Cintichem, Inc. is a wholly-owned Delaware subsidiary of Medi-Physics, Inc., a Delaware Corporation. Medi-Physics, Inc. is a wholly owned subsidiary of Hoffmann-LaRoche Inc., a New Jersey Corporation, which is owned by Curacao Pharmholding, N.V., a Curacao corporation. Curacao Pharmholding, N.V. is wholly owned by Sapac, Ltd., a New Brunswick (Canada) corporation. Sapac, Ltd. is publicly owned with its shares traded as a unit with the shares of F. Hoffmann-LaRoche and Co., Ltd., a corporation registered in Switzerland.

5. Special Nuclear Material License No. SNM-639 is issued pursuant to Section 53 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2073, and 10 CFR Part 70 of the NRC regulations. License No. SNM-639 was renewed by NRC on October 19, 1984, for a five year term expiring October 31, 1989.

6. The financial qualifications of applicant are demonstrated by the September 30, 1984 Balance Sheets of Cintichem and Medi-Physics (Attachment 1). The information contained in Attachment 1 is confidential and not available to competitors of Cintichem and Medi-Physics. It is, therefore, requested that Attachment 1 be granted proprietary status, since its release could result in a competitive advantage to other firms in the pharmaceutical manufacturing market. Affidavits pursuant to 10 CFR § 2.790, providing for proprietary treatment of information submitted to NRC, are enclosed with this application as Attachment 2. Medi-Physics agrees to provide all funds necessary to cover

estimated operating costs of the Sterling Forest Reactor for the duration of the facility operating license as well as the estimated costs of permanently shutting the facility down and maintaining it in a safe condition.

a. Estimates for total annual operating costs for each of the next five years of operation are as follows:

1983 - \$1.700 million  
1984 - 1.900 million  
1985 - 2.030 million  
1986 - 2.170 million  
1987 - 2.325 million  
1988 - 2.500 million

b. Estimates of the costs to permanently shut down the facility and maintain it in a safe operating condition are as follows:

Gross Costs: \$3,030,000.00  
Net Costs: 1,240,000.00 (See Attachment 3)

7. The names, addresses and citizenship of the directors and principal officers of Cintichem, Inc. and Medi-Physics, Inc. are as follows:

CINTICHEM, INC.

(a) DIRECTORS

<u>TITLE</u>	<u>NAME</u>	<u>CITIZENSHIP</u>
Director	Ellis B. Anderson	U.S.
Director	Irwin Lerner	U.S.
Director	Anthony P. Maris	U.S.
Director	Richard J. Murphy	U.S.
Director	Wilfred W. Rudley	U.S.
Director	Stuart J. Somerville	U.S.

(b) PRINCIPAL OFFICERS

<u>TITLE</u>	<u>NAME</u>	<u>CITIZENSHIP</u>
President	Stuart J. Somerville	U.S.
Exec. Vice President	Wilfred W. Rudley	U.S.

Vice President-Research & Development	Henry H. Kramer	U.S.
Vice President & Controller	Napoleon Fusilero	U.S.
Treasurer	William L. Hennrich	U.S.
Secretary	Lido L. Puccini	U.S.
Assistant Secretary	Mary A. Rodimon	U.S.

MEDI-PHYSICS, INC.

(a) DIRECTORS

<u>TITLE</u>	<u>NAME</u>	<u>CITIZENSHIP</u>
Director	Ellis B. Anderson	U.S.
Director	Irwin Lerner	U.S.
Director	Anthony P. Maris	U.S.
Director	Richard J. Murphy	U.S.
Director	Wilfred W. Rudley	U.S.
Director	Stuart J. Somerville	U.S.

(b) PRINCIPAL OFFICERS

<u>TITLE</u>	<u>NAME</u>	<u>CITIZENSHIP</u>
President	Stuart J. Somerville	U.S.
Exec. Vice President	Wilfred W. Rudley	U.S.
Vice President-Research & Development	Henry H. Kramer	U.S.
Vice President & Controller	Napoleon Fusilero	U.S.
Treasurer	William L. Hennrich	U.S.
Assistant Treasurer	Ruth Wallestad	U.S.
Secretary	Lido L. Puccini	U.S.
Assistant Secretary	Mary A. Rodimon	U.S.

(c) The address at which all of the above are located is 340 Kingsland St., Nutley, New Jersey 07110

except for Somerville, Rudley, Kramer, and Rodimon whose address is 4050 Lakeside Drive, Richmond, California 94806.

8. Cintichem agrees to accept all license conditions and terms of Special Nuclear Material License No. SNM-639 as amended, in force and effect at the time such transfer is approved by the NRC. Moreover, Cintichem agrees to accept the following additional license conditions if the license transfer is approved by NRC:
  - a. The president of Cintichem, or any officers of Cintichem having direct responsibility for the control of, and any employees of Cintichem having direct custody of special nuclear material, as defined in the Atomic Energy Act of 1954, as amended, stored, used, or produced at the Sterling Forest facility, shall be citizens of the United States.
  - b. Cintichem alone shall be responsible for the custody and control of such special nuclear material; and the officer of Cintichem in charge of such special nuclear material shall report directly to the president of Cintichem.
  - c. The president of Cintichem shall be charged with the responsibility and have the exclusive authority (either acting directly or through persons designated by and reporting directly to him) of ensuring that the business and activities of Cintichem shall at all times be conducted in a manner which shall be consistent with the protection of the common defense and security of the United States.
  - d. Cintichem shall report to the Commission any action by the Government of Switzerland or any changes in the law of Switzerland coming to its knowledge that would affect ownership or control of Cintichem or any action by that Government coming to its attention regarding operation of F. Hoffmann-LaRoche and Co., Ltd. that would affect the activities of Cintichem licensed by the Commission.
  - e. The foregoing provisions shall apply to Cintichem and any entities in which Cintichem shall have voting control.

- f. The foregoing conditions will continue to be binding on Cintichem unless amended or rescinded by the Director of the Office of Nuclear Materials Safety and Safeguards of the Commission, as appropriate (or the person holding any equivalent successor positions with the Commission or any agency of the United States which shall be the successor of the Commission).
  
9. Cintichem agrees to adopt all currently approved emergency response plans, including those of state and local government authorities.
  
10. Cintichem will adhere to the minimum staffing requirements contained in OL R-81 and SNM 639.
  
11. Cintichem agrees to limit access to restricted data such that no individual will have access to restricted data until such individual has granted clearance in accordance with the currently approved security plan for the facility.

The purpose for which this license transfer is being sought is to continue the operation of the Sterling Forest research facility (the "reactor"). The reactor is rated at five megawatts and is employed for the development and fabrication of radio-pharmaceutical products used by the medical industry in diagnosis and treatment. A major product of the reactor is molybdenum-99 which is produced to supply medical requirements in the United States, Japan, western Europe and South and Central America. A reactor near Ottawa, Canada, operated by Atomic Energy Canada, Ltd., is the only other North American facility producing fission product molybdenum-99.

In accordance with the agreement executed April 10, 1981 Attachment 4), Union Carbide agreed to operate the Sterling Forest



Before me, a Notary Public for the County of Essex, personally appeared Lido L. Puccini who, being duly sworn, stated that he is Secretary of Cintichem, Inc., that he has read the foregoing "Joint Application For Transfer of Special Nuclear Materials License" and the Attachments thereto, and that the information and statements contained therein are true and correct to the best of his knowledge and belief.

Rosemary Martini  
Notary Public  
ROSEMARY MARTINI  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires May 11, 1986  
My Commission Expires: 5-11-86

UNION CARBIDE SUBSIDIARY "B" Inc.

December 12, 1984

By James J. McGovern  
Its President

District of Columbia )  
                                  ) ss.  
                                  )

Before me, a Notary Public for the District of Columbia, personally appeared James J. McGovern who, being duly sworn, stated that he is President of Union Carbide Subsidiary B, Inc., that he has read the foregoing "Joint Application For Transfer of Special Nuclear Materials License" and the Attachments thereto, and that the information and statements contained therein are true and correct to the best of his knowledge and belief.

Maureen W. Rauden  
Notary Public

My Commission Expires: 8/14/85