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CINTICHEM, INC.

a wholly owned subsidiary of

Medi-Physics, Inc.

P.O. BOX 816, TUXEDO, NEW YORK 10987

(914) 351-2131



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'86 NOV 10 A9:18

October 31, 1986

Mr. Leland C. Rouse
U. S. Nuclear Regulatory Commission
Division of Fuel Cycle and Material Safety
Washington, DC 20555

Dear Mr. Rouse:

Enclosed are six copies of the replacement pages required to bring our SNM-639 license up-to-date with current job titles and facility ownership.

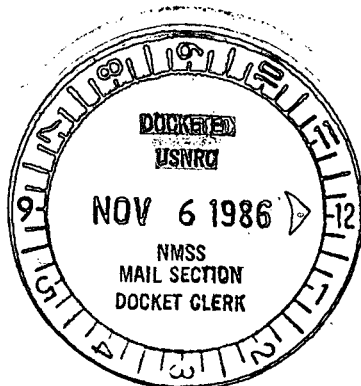
The ownership transfer has been reviewed by the Commission. Replacement of these pages in our license will bring our license into agreement with this change.

Should you have any questions, give me a call at (914) 351-2131.

Very truly yours,

C. J. Konnerth
Manager, Site Operations

CJK:mag
Enclosure



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SAFEGUARDS

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PART 1 - LICENSE CONDITIONS

CHAPTER 1 - STANDARD CONDITIONS AND SPECIAL AUTHORIZATIONS

- 1.1 License: Cintichem, Inc.
- 1.2 Location: Sterling Forest Laboratory
P. O. Box 816
Tuxedo, NY 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% enriched)	Encapsulated Sources	10 g
B.	Uranium - 235 (>20% enriched)	Any	23 kg
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 authorized for possession under NYS By-product Material License No. 729-0322.	Any	150,000 ci ¹

¹Safety 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.

CHAPTER 2 - GENERAL ORGANIZATIONAL AND ADMINISTRATIVE REQUIREMENTS

2.1 POLICY

All management and supervisory position descriptions shall include specific duties which require adherence to regulations, license conditions and ALARA principles.

The basic organization is shown in Figure 2.1. management positions are described in detail in Chapter 11.

2.2 ORGANIZATIONAL RESPONSIBILITY AND AUTHORITY

The Site Operations group shall have primary responsibility for monitoring the safety of operations. This function reports directly to the level one manager. (Ref. Figure 2.1)

2.3 SAFETY REVIEW COMMITTEES

(a) Nuclear Safeguards Committee Organization

The Nuclear Safeguards Committee shall be responsible for reviewing and auditing operations with regard to nuclear hazards. The Nuclear Safeguards Committee shall be composed of a minimum of five persons as follows:

- (1) A senior technically qualified person in a position of responsibility for the operation of the facility. (Level I or II.)
- (2) An engineer or physicist knowledgeable in reactor operations. (Level II or III in Nuclear Operations.)
- (3) A Health Physicist. (Level II or III in Radiation Health and Safety.)
- (4) A chemist, Chemical Engineer or otherwise technically qualified person knowledgeable in hot laboratory operations and chemical separations. (Level II in Radiochemical Production or Engineering.)
- (5) A senior technical person not associated with facility operations but knowledgeable in the field of nuclear technology. (This person should have an advanced degree in Science or Engineering or equivalent work experience. The work experience shall be at least 5 years in a field closely related to one or more phases of the operation at Sterling Forest.)

- c. Changes in license conditions.
- d. Violations of license conditions.
- e. Violations of internal procedure or instructions having safety significance.
- f. Operating abnormalities having safety significance.
- g. Audit reports.
- h. Reportable occurrences.

The audit function of the Nuclear Safeguards Committee includes selective (but comprehensive) examination of operating records, logs, and other documents. Where necessary, discussions with responsible personnel takes place. An individual conducting the audit shall not be immediately responsible for the area being audited. Audits specific to SNM operations are listed in Section 2.8.

A written report of the findings of the audit is submitted to Level I management and the Nuclear Safeguards Committee members within 90 days after the audit has been completed. Deficiencies that affect safety are reported promptly to the Level I management.

(c) General Safety Organization

The General Safety Committee shall be responsible for reviewing and auditing all operations and facilities on site concerning hazards such as fire, electrical shock, work practice restrictions, provision and maintenance of lifting equipment, etc.

This Committee shall be composed of the manager of each major operating organization on site as well as the Radiation Safety Officer, or their designated alternates.

2.4 PERSONNEL SELECTION

Personnel selection is the responsibility of the next highest position in the line organization. Temporary vacancies in the key management positions will be filled by "acting" members of the staff until permanent replacements can be made. Members of the Safety Review Committees shall be recommended by the Committee and appointed by the Level I Manager.

2.5 PERSONNEL EDUCATION AND EXPERIENCE REQUIREMENTS

The minimum compliance of line and staff management personnel is shown in Figure 2.1. The education and experience requirements for these positions are as follows:

Education and Experience of Key Personnel

<u>Position Title</u>	<u>Qualifications/Prerequisites</u>
Site Manager	B.S. Degree in scientific or engineering discipline and approximately 10 years of related nuclear operations and production experience.
Nuclear Operations Manager	B.S. Degree in engineering, physics, or science and approximately 10 years experience in nuclear reactor engineering or operations. Incumbent should possess a Senior Reactor Operator License.
Site Operations Manager	B.S. Degree in physics, biology, or science and approximately 10 years experience in the field of Health Physics and General Safety work.
Radiochemical Production Manager	B.S. Degree in chemistry, chemical engineering or production management and/or at least 5 years work experience in nuclear related production environment.

Reactor Supervisor

B.S. Degree engineering or science with emphasis in nuclear technology and/or a minimum of 5 years work experience in nuclear reactor operations. Incumbent must possess a Senior Reactor Operator's License.

Facility Services Engineer

B.S. Degree in science or engineering or a minimum of 5 years operating experience in reactor or hot cell operations.

Reactor Project Engineer

B.S. Degree in science or engineering or at least 5 years related work experience in nuclear reactor operations. Incumbent must possess Reactor Operator's License.

Radiation Safety Officer

B.S. Degree in science or physics and at least 5 years experience in radiological health and safety.

2.6

TRAINING

Training and requalification of personnel in safety related matters shall be accomplished as follows:

- (a) New personnel shall be assigned to the Health Physics Department for initial radiation safety training. The Health Physics Department shall determine the duration and depth of training which will depend on the job assignment and previous experience of the new employee. Upon completion of this initial radiation safety training, the employee's knowledge shall be tested and documented by means of a written examination. This initial training shall be sufficient so that follow-up job training can be continued by the supervisor who will assign an experienced radiation worker to work with the new employee. The Health Physics Department shall determine the need for additional formal training from follow-up observations and the results of personnel monitoring.

- (b) At least annually the Health Physics Department shall review the radiation exposure history of all employees who have exceeded 25 percent of the annual limit and shall determine the need for additional training. Employees determined to be in need of additional training shall be retrained by either Health Physics or line supervision and be retested by Health Physics.
- (c) Health Physics technicians shall have a minimum of two years of college or equivalent experience or training and must successfully complete the basic radiation control training. Additional training through a combination of formal sessions and on-the-job review shall be continued for a period of six months after this initial training. Employee performance and job knowledge shall be evaluated at least annually and additional training given if necessary.
- (d) Each employee who is authorized to handle SNM must demonstrate an understanding of criticality safety requirements as well as other license conditions in an annual requalification program. The employee will affirm that procedures, license conditions and limits, and regulatory requirements that are pertinent to their function have been reviewed. Each employee shall demonstrate competence in his/her safety related job functions as observed by his/her immediate supervisor. An annual requalification checklist will be completed for each individual who is authorized to possess and handle SNM. The checklist will be signed by the employees and his/her immediate supervisor.
- (e) Training of site personnel in emergency preparedness will be per the Nuclear Facility Emergency Plan (see Chapter 8).

2.7

OPERATING PROCEDURES

Written procedures for routine operations in the activities listed below shall be published in a procedure manual that is readily accessible to the appropriate operations personnel.

- (a) Criticality Safety (handling, storing, monitoring).
- (b) Radiation protection (protective equipment, surveys).

FIGURE 2.1

ORGANIZATION CHART

LEVEL 1

| Site Manager | -- | Nuclear Safeguards Committee |

LEVEL 2

| Manager Site Operations | | Manager Nuclear Operations | | Manager Radiochemical Production |

LEVEL 3

| Radiation Safety Officer | | Reactor Supervisor | | Facility Engineer | | Reactor Project Engineer | | Process Supervisor (as required) |

LEVEL 4

| H.P. Technicians | | Reactor Operators | | Aux. Facilities Operators | | Radiochemical Production Technicians |

- c. Liquid waste shall be released from the site unless its activity concentration, including dilution with non-radioactive waste water, is below that specified in 10 CFR, Part 20. This activity concentration shall be determined at least once per month by analysis of a composite sample of all tanks released during that period.
- d. Total radioactivity released in liquid effluents shall not exceed 0.01 Ci (Sr-90 equivalent) in any 12-consecutive month period. If the above limit is exceeded, make a special report to the NRC within 30 days explaining the cause of exceeding the limit and the corrective action to reduce the release to within the limit.
- e. The total annual radioactivity released in liquid effluents shall be included in the annual report and submitted to Level I management.

5.1.4 Responsibility for Effluent Control

The Radiation Safety Officer is responsible for effluent control and monitoring.

5.1.5 Non-Radiological Monitoring

Water discharge from the site shall be limited and monitored in accordance with the State Pollutant Discharge Elimination System Permit No. NY-0004464.

5. ENVIRONMENTAL MONITORING

5.2.1 Radiological Environmental Monitoring

The radiological environmental monitoring program shall be conducted as specified in Table 5.2.1. The results of analyses performed on the radiological environmental monitoring samples shall be summarized in an annual report.

CHAPTER 8 - RADIOLOGICAL CONTINGENCY PLAN

Cintichem, Inc. shall implement, maintain, and execute the response measures of the Nuclear Facility Emergency Plan submitted to the Commission on September 3, 1982 and revised August 8, 1983, and as may be modified as hereinafter described. Cintichem, Inc. shall also maintain procedures for the Emergency Plan to implement the Plan. This Emergency Plan and associated implementing procedures incorporate the emergency planning requirements of 10 CFR 70.22 (i) as they refer to on site planning and notification procedures. Cintichem shall make no change in the Emergency Plan that would decrease the response effectiveness of the Plan without prior Commission approval as evidenced by a license amendment. Cintichem may make changes to the Emergency Plan without prior Commission approval if the changes do not decrease the response that is made to the Plan. Such changes shall be reported to the NRC Regional Office with a copy to the Director of Inspection and Enforcement annually.