UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406

June 4, 1990

Francis J. Bradley, Ph.D., Principal Radiophysicist
Radiological Health Unit
New York State Department of Labor
One Main Street, Room 813
Brooklyn, New York 11201

Dear Dr. Bradley:

Enclosed is a copy of draft minutes of our meeting on May 30, 1990 concerning the decommissioning of Cintichem, Inc. Please let us know by June 15, 1990 if you have any corrections or additions.

Sincerely,

John R. McGrath

John R. McGrath
Regional State Agreements Officer

cc:
Barbara Youngberg, NYSDEC
Karim Rimawi, NYSDOH
Herb Michael, NYSDOH

B-11

bcc:
G. Comfort, NMSS
T. Johnson, NMSS
T. Michaels
T. Hufferd, NMSS

SUMMARY OF NRC/NEW YORK STATE MEETING REGARDING
DECOMMISSIONING OF CINTICHEM, INC
MAY 30, 1990

On May 30, 1990, representatives of the U. S. Nuclear Regulatory Commission and the State of New York met in the Brooklyn offices of the New York State Department of Labor. The New York State Departments of Labor, Health, and Environmental Conservation were represented. The NRC was represented by staffs from Region I, NRR and NMSS. A full list of attendees is attached. The purpose of the meeting was to discuss issues related to the decommissioning of the Cintichem facility in Tuxedo, New York which is licensed by the NRC and the State of New York.

Dr. Frank Bradley, Principal Radiophysicist, New York State Department of Labor and meeting host, called the meeting to order and called upon Mr. Roth, NRC - Region I, to proceed with the agenda. Mr. Roth provided an introduction, discussing some of the history of the Cintichem operation and what has led to the current plan to decontaminate and decommission the Tuxedo facility. It was stated that it was NRC's understanding that Cintichem was planning to decommission and possibly dismantle Buildings 1 and 2 at the site. Building 1 consists of the reactor building and is mostly NRC jurisdiction. There are a few small areas of the building which are under State jurisdiction. Building 2 contains the hot cells and is a "mixed bucket" with regard to NRC and State jurisdiction. The NRC is responsible for the regulation of special nuclear material (SNM) and the State of New York is responsible for the regulation of byproduct material.

There was some discussion with regard to the company's plans in view of a proposed purchase of some of the Cintichem operation by Amersham, particularly the activities currently carried on in Building 4. Dr. Bradley indicated that before the State could evaluate any proposal by Cintichem to decommission all or part of the facility, they would have to see the specific terms of the agreement between Amersham and Hoffman-LaRoche, the parent company of Cintichem. Mr. Roth indicated that it was the NRC's understanding that Amersham would lease Building 4 and that Hoffman-LaRoche would maintain ownership. However, according to the State, Cintichem would continue to provide health physics coverage for Building 4. The uncertainties concerning the status of Building 4 with regard to the proposed deal between Amersham and Hoffman-LaRoche would seem to dictate caution in addressing the licensee's plans for not only decommissioning, but for continued operations at the site.

The first major issue to be discussed was the extent of the decommissioning activities. NRC had been led to believe that Cintichem was planning to decommission Buildings 1 and 2, which would imply that no other areas such as soil or water contamination would need to be considered at this time. In view of the State's concerns regarding future activities and the difficulties in separating existing contamination with any contamination

that might be the result of future activities, it was felt that the most appropriate position would be to require that Cintichem conduct a full site characterization study and that they be required to decontaminate and decommission everything at the site excluding the materials and activities that are currently being conducted at Building 4.

The second major issue to be addressed was the criteria to be used for decontamination limits. NRC staff discussed the current limits in Regulatory Guide 1.86 and the Branch Technical Position with regard to uranium and thorium as well as proposed criteria being considered by the Commission in NUREG/CR-5512. The State discussed their current guidance in Code Rule 38. Table 5 of Code Rule 38 contains limits for release for unrestricted use. These limits are generally on the order of one-tenth the limits in Reg. Guide 1.86. In addition The Department of Environmental Conservation would be responsible for setting soil contamination limits. It was unclear what specific limits DEC would use, but there was further discussion of NRC's current soil contamination limits for uranium, thorium, and Pu, and there appeared to be general agreement that these limits were appropriate. The State agreed that they would review their current standards and propose a set of criteria for consideration in this decommissioning project. The State will submit their proposal to NRC by July 1, 1990. The NRC will review the proposal and provide comments. The State and NRC will then meet again, if necessary, to resolve any differences, but in any case a set of criteria that both the NRC and the State will agree to apply to the Cintichem decommissioning will be developed.

The last major issue was survey verification. Mr. Roth discussed the NRC's general policy with regard to decommissioning and survey verification. The NRC typically requires the licensee to develop and implement a decommissioning plan which includes the procedures for conducting detailed radiation surveys of the decommissioned facility after completion of decontamination work. After the licensee has conducted these surveys, the NRC will review the reported results and have a contractor, such as Oak Ridge Associated Universities, or NRC personnel conduct a verification survey. NRC staff may perform additional spot check surveys, but the bulk of the survey activity would be conducted by the contractor. For the Cintichem decommissioning, the NRC proposed that the State participate in the NRC survey to some extent. However, the State staff indicated that they would be conducting there own verification surveys but would be interested in reviewing the NRC's plan and survey data. It was agreed that the State would develop an independent verification survey plan, that the State plan and the NRC's plan would be reviewed by the State and NRC, that all parties would review the survey data, and that any differences in data would be evaluated and if necessary additional surveys would be conducted. The NRC staff concluded by indicating that the lead contact for the Cintichem decommissioning project would be Seymour Weiss, Director, Non-Power, Decommissioning and Environmental Project Directorate. Bob Bores, Chief, Effluents Radiation Protection Section, Facilities Radiological Safety and Safeguards Branch, Division of Radiation Safety and Safeguards, Region I would be the lead contact with regard to survey information.

Meeting with New York State
Re Cattaraugus

Name	Title	Agency	Phone
Jerome Roth	Project Engineer	NRC-RI	215-337-5205
Gary Comfort	SNM Project Manager	NRC-HQ	301-492-0667
Robert Bores	Chief, Effluents Radiation Protection Sect.	NRC-RI	215-337-5213
George L. Kasyk	State of New York, DOL		(718) 797-763
Tim Johnson	Section Leader, LLWM	NRC-HQ	301-492-055
Ted Michaels	Sr. Project Manager	NRC-HQ	301-492-1107
F.J. Bradley	Prin. Radiophysicist	NYS/DOL	718-797-7641
Herbert F. Michael	Assoc Radiological Health Specialist	NYS/DOH	914-632-413
N Cabasino	Assoc Radiation DOL	NYS DOL	718-797-763
John McGrath	Regional State Agreements Br.	NRC-RI	215-337-521
Tony Huffert	Health Physicist, LLWM	NRC/HQ	(301) 492-052
Barbara Youngberg	Env. Rad. Spec. III	NYS DEC	518-457-222
Steve Zodel	Env. Rad. Spec. II	NYSDEC	" "

Dr. Rimawi - NYS DOH 518-458-6461
re
Bill Condon

Dr. Paul Merges, Director, Bureau of Radiation
N.Y.S. D.E.C. Dept of Environmental Conservation
50 W. 7 Road
Albany, N.Y. 12223-7255

10-D-2 FACSIMILE REQUEST

Date: 4-4-90

MESSAGE TO: Seymour Weiss
NRR/PDNP 20160

TELECOPY NUMBER: 492-0260

NUMBER OF PAGES: 2 INCLUDING THIS REQUEST FORM

MESSAGE FROM: Sharon Johnson
U.S.N.R.C. REGION I KING OF PRUSSIA, PENNA.

TRANSMITTED BY: _____

DATE & TIME: _____

VERIFIED BY: _____

B-9

REG I Form 124
Feb 77

CINTICHEM, INC.
a wholly owned subsidiary of
Medi-Physics, Inc. P.O. BOX 816, TUXEDO, NEW YORK 10987 (914) 351-2131

Contact: Alfred Wasilewski
(914) 351-2131
(201) 235-5947

CINTICHEM TO DECOMMISSION RESEARCH REACTOR

STERLING FOREST, N.Y., April 4 -- Cintichem, Inc. announced today a voluntary decision to close and decommission the company's five-megawatt nuclear research reactor used for the production of radioisotopes.

Cintichem, a subsidiary of Medi-Physics, Inc., is a supplier of radioisotopes used in diagnostic testing, such as organ scans and radioimmunoassays.

The decision to close the facility was made after an in-depth analysis of the long-term economic viability of the reactor, said Jim McGovern, Cintichem plant manager.

Moreover, the decision will not impact Medi-Physics' radiopharmaceutical production, since long-term agreements for radioisotopes are in place, McGovern added.

Cintichem will prepare a detailed plan to submit to the Nuclear Regulatory Commission (NRC) for its approval in accordance with Federal regulations for decommissioning a nuclear facility. The NRC is the regulatory agency responsible for licensing reactor operations at the plant site.

According to McGovern, initially, about 25 positions will be affected by the shutdown decision. Further workforce reductions will occur over time as the decommissioning process takes place.

Cintichem, purchased by Medi-Physics in 1981, has operated the reactor safely for nearly 30 years, supplying more than 50 percent of the radioisotopes used by hospitals and testing laboratories in the U.S.

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CINTICHEM, INC.
a wholly owned subsidiary of
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FACSIMILE REQUEST

DATE May 15, 1990

MESSAGE TO: Seymour Weiss

NRR/PDNP Room 10 H 20 OWFN

TELECOPY NUMBER: 492-0260

NUMBER OF PAGES: 4 INCLUDING THIS REQUEST FORM

MESSAGE FROM: Ronald R. Bellamy

U. S. N. R. C Region I King of Prussia, PA

TRANSMITTED BY: Sharon Johnson

DATE AND TIME: May 15, 1990 9:10 AM

VERIFIED BY:

Fax Number 346-5269
Verify Number 346-5395

The Town of Tuxedo
BOX 725, TUXEDO PARK NEW YORK 10987

SUPERVISOR
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914-351-2269

TOWN BOARD
ARTHUR I. HOLDRICK
HELMUT P. NIEBUHR
JOSEPH J. BRANDO
ROBERT P. STOCK

TOWN CLERK
VIRGINIA L. MARSH
914-351-5411

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J. RICHARD ANGIELLO
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CHARLES G. COBLE
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ROBERT C. TARBET
914-351-5607

TAX COLLECTOR
GREGORY STEPHENS
914-351-5687

FAX NUMBER
914-351-5523

Date: May 4, 1990

To: Nuclear Regulatory Commission
DEC, Albany
DEC, Region 3, New Paltz
New York State Health Department
Orange County Health Department
NYS Department of Labor
Cintichem, Inc.
Hoffman and LaRoche
Public Service Commission

From: Annette R. Dorozynski, Supervisor

Re: Cintichem

The Town Board has received several recommendations from professional residents who have backgrounds in Chemical & Nuclear Engineering.

The following is a summation of requirements that the Town deem necessary relative to any changes that may be considered at the Hoffman and LaRoche facility in Sterling Forest, Tuxedo, New York. It is imperative that the Town have a full and active role of authorization and public participation in all reviews and processes that may be involved with the decommissioning of the reactor and/or change of use of the property and in the manufacturing process.

1. A site plan shall be filed immediately with the Tuxedo Planning Board.

2. The SEQRA process shall be promptly implemented.

3. All test results shall be presented in layman's language to facilitate communication to the community's residents.

4. An outline of protection measurements for the area residents and the community at large shall be developed and presented at a public hearing.

5. A monetary trust fund or similar instrument of financial responsibility and protection be established for any health and physical damages that may occur or result from the present accident and potential damages to the residents and the community at large.

6. An independent professional monitoring staff as approved by the Town shall be assigned with the cost borne by Cintichem (Hoffman and LaRoche).

7. All monitoring and testing records and analysis shall be on file with the Town, County and State for future reference.

8. A monitoring system shall be established with local doctors and hospitals to assure the recording of all unusual medical problems from residents and employees of Cintichem and those of other corporations in the Town of Tuxedo.

9. All scheduled public hearings shall be in Tuxedo (where applicable).

10. The site shall be monitored to assure completion of all corrective measures and the monitoring wells continue to be tested on an established periodic schedule.

11. The site shall be monitored for an extended period of time that is acceptable to the Town based on professional advice and recommendations. The time period shall be adequate to assure the monitoring of any lingering contamination.

12. The Town shall be notified immediately by Cintichem when there is any change in the manufacturing process.

13. The repairs of all concrete fractures which allowed tunneling of water through the foundation shall be completed. A full evaluation of all the other buildings shall be carried out and a written report shall be provided to the Town.

14. All storm runoff that may pass into and through a contaminated area shall be channeled away from the reservoir to safeguard the reservoir.

15. We request that you coordinate your efforts by having one contact individual to report to the Town. At present we must call at least 16 different people to receive an answer or direction.

It should be understood that because of the reviews and evaluations of the site and changing conditions and because there is a constant expansion of knowledge in this field, the Town will continue to add requirements that are deemed necessary to protect its interests primarily the health of the community and its residents.

It should be further understood that the Town and its residents shall not be liable for any expenses that may be incurred, for past accidents or for future accidents or measures that may be required to assure the safety of operation or the elimination of risk.

We will be happy to discuss any questions or comments that you may have and meet with you upon your reply.

ARD:ar

cc: Town Board
Town Clerk
Herschel Greenbaum
Joseph Corless
Kenneth Magar
Police Department
Highway Department
Congressmen Benjamin Gilman
Senator Levy
Assemblyman John Bonacic
County Legislator Maria Umhey
County Legislator Roberta Murphy
County Executive Mary McPhillips
County Planning Department
Sterling Forest Corp.
Tuxedo Park Associates
International Paper
Wehran Engineering
Xicom, Inc.
New York University
Laurel Ridge Residents Assoc.
Clinton Woods Residents Assoc.
Tuxedo Fire Commissioners
Tuxedo Fire Companies 1, 2 and 3

SFW
4/4/90

Director's Highlight
Cintichem
April 4, 1990

Cintichem Inc. (licensee), a manufacturer of radiopharmaceuticals, announced today that they are going to decommission their 5MW research reactor in Tuxedo, N.Y. The licensee is a subsidiary of Medi-Physics, who is a subsidiary of Hoffman-LaRoche, a Swiss Company. The reactor has been shut down since February 9, 1990 and ordered to remain shutdown by an NRC Order dated February 13, 1990. Up to this time, the licensee was formulating plans to repair leaks in a concrete tank and pool and leaks in a ventilation duct.

CONTACT:
T. Michaels, NRR/PDNP
49-21102

B-8

UNITED STATES
NUCLEAR REGULATORY COMMISSION
Office of Governmental and Public Affairs
Washington, D.C. 20555

No. 90-29
Tel. 301/492-0240

FOR IMMEDIATE RELEASE
(Tuesday, February 13, 1990)

NEW YORK STATE AND NRC ACT TO ASSURE SAFE CONDITIONS AT
CINTICHEM RADIOPHARMACEUTICAL PLANT AT TUXEDO, NY

KING OF PRUSSIA, PA- The Nuclear Regulatory Commission, in consultation with the State of New York, today acted to assure safe conditions at the Cintichem radiopharmaceutical manufacturing facility at Tuxedo, New York. The NRC issued an order that prevents resumption of reactor operations and manufacturing operations until certain corrective actions are taken.

New York State Environmental Conservation Commissioner Thomas C. Jorling said, "The DEC is working cooperatively with the Nuclear Regulatory Commission because we have separate and distinct authority and responsibility to make sure that the facility is operated properly and that the environment is protected.

"Under New York State's authority, DEC will be issuing a consent order, and will not concur in reopening radioisotope production until new SPDES and air emission permits are issued and the specific actions, unrelated to reactor operations, contained in the consent order are met," Commissioner Jorling said.

Both the NRC staff and New York State have had technical specialists at the site in recent days after small quantities of radioactive contamination showed up in surface waters on the site. However, no evidence has been found of contamination of the Indian Kill Reservoir, which provides a source of drinking water to some 150 families in the Sterling Forest area of southern Orange County, NY.

Today's action stems from the discovery over the weekend that areas of a water-filled concrete pathway connecting the reactor pool to the entrance of the remotely operated "hot cells" where chemical work is done appear to have sprung leaks into the soil and rock surrounding the plant foundations. The facility was shut down last Friday. On Saturday a hole was discovered in the concrete wall of a pit normally filled with water. It has been pumped dry to stop leakage from that point. In the last four days the company has been collecting, testing and then pumping through filtration equipment the water collected in a small pond that lies between the plant and the reservoir, and in which contamination was found. The NRC has had its Region I mobile laboratory at the plant so that the NRC staff could check the accuracy of the plant's testing procedures.

FOIA-90-401

B-1

The NRC has licensing and inspection authority over the 5 megawatt pool type reactor, which produces radioisotopes used in the diagnosis and treatment of disease. These radioisotopes are then chemically bound to materials used for medical administration to patients. New York State licenses and inspects the product manufacturing process and handling of radioactive wastes generated by that work.

In today's NRC order, signed by Hugh L. Thompson, Jr. Deputy Executive Director of the NRC, the company was required to plan and implement both short-term and long-term actions to assure protection of public health and safety. Under the order, reactor operations would not be permitted to resume until completion of the short-term actions. Cintichem must obtain NRC staff approval of the plans before implementation.

Under the NRC order, the company must first submit a plan of action to the NRC staff, which has assured New York State it will be fully consulted in the approval process.

The order requires the company to specify in the plan how it will find all the leaks, and how it will repair them; and to devise and present for NRC approval a strategy for testing the repairs to assure their adequacy. The company also must describe a future monitoring program in the plant, to assure that any future leakage is promptly detected.

For the longer term, the NRC staff wants the company to determine the root causes of the undetected and uncontrolled leaks of radioactively contaminated materials as well as any structural deterioration of the reactor structures, systems and components.

Then the NRC staff, which already has inspectors and various technical experts on site, will inspect against the commitments made in the plan to assure its proper implementations.

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News Release

New York State Department of Environmental Conservation

THOMAS C. JORLING, Commissioner

Telecopy to Marie Miller NRC

FOR RELEASE: IMMEDIATE, TUESDAY, FEBRUARY 13, 1990

The New York State Department of Environmental Conservation and the Nuclear Regulatory Commission announced today that they will order the Cintichem nuclear facility in Tuxedo Park, Orange County, not to resume operations until the agencies are satisfied that the facility can be operated and maintained safely and without leaks of radioactive material.

The small nuclear reactor at the facility was shut down on Friday, February 9, after radioactive contamination had been detected in a retention pond on the site that collects runoff water from buildings and parking lot drains. The assortment and relative concentrations of the radionuclides present clearly indicated that the contamination was caused by water originating in the reactor pool.

Environmental Conservation Commissioner Thomas C. Jorling said, "The DEC is working cooperatively with the Nuclear Regulatory Commission because we have separate and distinct authority and responsibility to make sure that the facility is operated properly and that the environment is protected."

The Nuclear Regulatory Commission is preparing an order that prevents the resumption of reactor operations until certain actions are taken, and the NRC Region I Administrator's approval for reactor operation is obtained.

(more)

B-2

Commissioner Jorling said, "While the Nuclear Regulatory Commission has jurisdiction over operation of nuclear reactors, New York State has authority to regulate other processes involving radioactive material at the facility so that they do not pollute the environment.

"Accordingly, under New York State's authority, DEC will be issuing a consent order, and will not concur in reopening radioisotope production until new SPDES and air emission permits are issued and the specific actions, unrelated to reactor operations, contained in the consent order are met."

In addition, under terms of the consent order, Cintichem shall:

-- Conduct an environmental audit of the facility and its operations and submit a written report of its findings to the department.

-- Develop and implement a remedial program for the facility for remediation of all significant contamination resulting from its operations.

-- Retain professional consultants, contractors, laboratories, quality assurance and quality control personnel and data validators acceptable to the department to perform the technical, engineering and analytical obligations required by the consent order.

Cintichem uses a small research-type reactor to generate radionuclides that are used in medicine and scientific research. It is the major commercial producer of these isotopes in the United States.

-30-

90-37

FOR FURTHER INFORMATION, CALL:
Arthur Woldt (518) 457-5400

UNITED STATES
NUCLEAR REGULATORY COMMISSION
Office of Governmental and Public Affairs
Washington, D.C. 20555

No. 90-29
Tel. 301/492-0240

FOR IMMEDIATE RELEASE
(Tuesday, February 13, 1990)

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New York State Environmental Conservation Commissioner Thomas C. Jorling said, "The DEC is working cooperatively with the Nuclear Regulatory Commission because we have separate and distinct authority and responsibility to make sure that the facility is operated properly and that the environment is protected.

"Under New York State's authority, DEC will be issuing a consent order, and will not concur in reopening radioisotope production until new SPDES and air emission permits are issued and the specific actions, unrelated to reactor operations, contained in the consent order are met," Commissioner Jorling said.

Both the NRC staff and New York State have had technical specialists at the site in recent days after small quantities of radioactive contamination showed up in surface waters on the site. However, no evidence has been found of contamination of the Indian Kill Reservoir, which provides a source of drinking water to some 150 families in the Sterling Forest area of southern Orange County, NY.

Today's action stems from the discovery over the weekend that areas of a water-filled concrete pathway connecting the reactor pool to the entrance of the remotely operated "hot cells" where chemical work is done appear to have sprung leaks into the soil and rock surrounding the plant foundations. The facility was shut down last Friday. On Saturday a hole was discovered in the concrete wall of a pit normally filled with water. It has been pumped dry to stop leakage from that point. In the last four days the company has been collecting, testing and then pumping through filtration equipment the water collected in a small pond that lies between the plant and the reservoir, and in which contamination was found. The NRC has had its Region 1 mobile laboratory at the plant so that the NRC staff could check the accuracy of the plant's testing procedures.

B-3

DIRECTOR'S HIGHLIGHT

Non-power Reactor, Decommissioning, and Environmental
Project Directorate

February 14, 1990

Cintichem - Order Modifying Licenses R-81 and SNM-639 (Dockets 50-54 and 70-687)

On February 13, 1990 an Order Modifying Licenses (Non-Power and SNM) was issued to Cintichem, Tuxedo, New York. This action, effective immediately, was based on the identification of an unmonitored release of radioactively contaminated water from the facility's reactor building to an onsite retention pond. The cause of the leak was determined to be a failure of the concrete wall of the gamma pit (a water filled pool used for temporary storage of radioactive material) and a subsequent failure of the holdup tank (which is located in the reactor building and which is used to allow decay of short-lived isotopes). The Order required, among other things, that the reactor remain shutdown until a plan was provided to identify and repair leaks, as well as implementing a monitoring program. In addition the Order required a detailed plan for the identification of the root causes of the releases. S. Weiss, Director, NPRDE, will be at Cintichem on February 16, 1990.

CONTACT:
T. Michaels: PDNPRDE
21102

B-4

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF GOVERNMENTAL AND PUBLIC AFFAIRS, REGION I
475 Allendale Road, King of Prussia, Pa. 19406
Tel. 215-337-5330

No. I-90-21
Contact: Karl Abraham

February 22, 1990

NRC STAFF RENEWS INQUIRY INTO RELEASE INTO LOCAL RESERVOIR OF WATER POSSIBLY CONTAMINATED WITH RADIOACTIVITY FROM CINTICHEM REACTOR AT TUXEDO, NY

KING OF PRUSSIA, PA--The NRC staff has intensified its inquiry into the circumstances of leakage of radioactively contaminated water from the Cintichem, Inc. reactor near Tuxedo, NY, after the company reported that it had three times pumped out a small pond between the reactor facility and the Indian Kill Reservoir on February 9, before NRC inspectors and their mobile laboratory arrived at the site.

The NRC mobile lab and New York State have analyzed water from the reservoir and found no detectable traces of radioactivity in these samples.

Cintichem, a manufacturer of radiopharmaceuticals used in the diagnosis and treatment of disease, had halted operations February 9 after discovering (and reporting to the NRC) that water from a storm sewer system on the site had contaminated the pond water. The next day, Saturday, after heavy early morning rains, the NRC gave Cintichem permission to discharge water from the pond to a creek downstream of the reservoir. Radioactivity in the water, which was tested before discharge, had been so diluted that the water met all NRC requirements for release to the environment. Samples taken at a pipe outfall of surface and groundwater from around the plant before it enters the pond showed radioactive contamination levels detectable, but below the maximum permissible concentrations set by the NRC for discharge of such water from the site.

On February 20, the company informed NRC Region I that it had made three discharges from the pond earlier Friday, the 9th, that had not previously been called to the NRC's attention. The discharges were made after water samples had been taken for laboratory analysis, but the discharges were made before the analytical results were in hand. Later analysis showed these samples contained the radioactive isotopes iodine-131, iodine-133 and sodium-24. These are characteristic products from the operation of Cintichem's reactor. Cintichem told the NRC it became aware of the results of its testing about 9 a.m. on February 9, after the third discharge had been completed. After becoming aware of the presence of radioactivity in the water, the company halted discharges to the reservoir.

(more)

B-5

The NRC staff has kept the New York State authorities and Town of Tuxedo officials informed of these latest developments, and plans to have technical specialists at the Cintichem site.

Since February 13, Cintichem has been under an NRC staff order to assure that conditions at the plant remain safe, including a requirement for both short-term and longer term corrective actions to deal with and recover from two leaks found so far. One leak was in a tank that is part of the reactor cooling system. Leakage from that tank was recovered and pumped to onsite tanks. The other leak was discovered in a concrete wall of a water-filled channel. Leakage from this source is believed responsible for the contamination found in the pond. The channel is used as the transport passage for radioactive materials being moved from the reactor to a series of specially shielded rooms called "hot cells." There technicians with remotely controlled manipulating arms separate the portions of the product that will be used for the preparation of radiopharmaceuticals.

Both the inspection report covering the presence of the NRC staff at the site the weekend of February 9, and the follow-up reports, will be made public by the NRC.

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CINTICHEM STATUS JUNE 6, 1990

- LICENSEE IS DEVELOPING DECOMISSIONING PLAN - TLG (TOM LAGUARDIA) COMPANY HAS BEEN HIRED AS A CONSULTANT ON THE DEVELOPMENT OF THE PLAN. EXPECT TO SUBMIT PLAN IN THREE MONTHS.

- LICENSEE PLANS TO RAZE THE REACTOR (BUILDING #1) AND THE HOT-CELL (BUILDING #2) BUILDINGS. BUILDING #4 WILL REMAIN FOR THE PRODUCTION OF RADIOPHARMACEUTICALS.

- LICENSEE HAS DEVELOPED A PLAN TO REPAIR AND USE TRANSFER CANAL AND GAMMA PIT FOR REMOVAL OF FUEL AND OTHER RADIOACTIVE MATERIAL.

- POORLY CONSOLIDATED CONCRETE FOUND IN SECTION OF THE GAMMA PIT WALL. LICENSEE'S CONTRACTORS CONCLUDED THAT CONCRETE WAS GENERALLY SOUND WITH THE EXCEPTION OF SEVERAL LOCATIONS WHERE CONCRETE WAS IMPROPERLY PLACED - NOT CAUSED BY CONCRETE DETERIORATION.

- I-131 ACTIVITY IN THE MONITORING WELLS AROUND THE PLANT IS BELOW DETECTABLE LIMIT (3x10E-8 uCi/ml). OTHER ACTIVITIES NOTED IN THE LEAK OF FEBRUARY 9, 1990 i.e. Mo-99, Na-24 AND I-133 HAVE SHORTER HALF-LIVES.

- REQUEST FOR HEARING BY THE RADIOACTIVE WASTE CAMPAIGN AND ORANGE ENVIRONMENT ON THE ORDER ISSUED ON FEBRUARY 13, 1990 WAS DENIED BY ASLB BECAUSE ISSUE IS MOOT (DECOMMISSIONING) AND PETITIONER SUFFERS NO INJURY FROM ORDER.