

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of

RADIATION TECHNOLOGY, INCORPORATED
Lake Denmark Road
Rockaway, New Jersey 07866

Docket No. 30-07022
License No. 29-13613-02
EA 86-17

CONDITIONAL RESCISSION OF ORDER SUSPENDING THE LICENSE

I

Radiation Technology, Incorporated, Lake Denmark Road, Rockaway, New Jersey 07866 (the licensee) is the holder of a byproduct material license issued by the Nuclear Regulatory Commission (the Commission or NRC) pursuant to 10 CFR Part 30. The license, which was issued on November 18, 1970, most recently renewed on August 17, 1981, and due to expire on August 31, 1986, authorizes the licensee to perform certain activities using byproduct material in accordance with criteria specified therein. This authorization includes, among other activities, the use of specified radioactive sources, not to exceed 12,000 curies per source and 2,000,000 curies total, for service irradiation in the licensee's Radiation Technology (RT) Model 2102 service irradiator.

II

An Order Suspending the License (Effective Immediately) was issued on March 3, 1986. The Order suspended all operations authorized by License No. 29-13613-02 and required that the licensee place and maintain all sources in their fully shielded position at the bottom of the irradiator pools, and conduct only those licensed activities required to maintain the facility in a safe condition.

This Order was based on the finding, during several NRC inspections, that licensee personnel had defeated required safety interlocks associated with the RT-2102 irradiator in violation of Commission requirements, including 10 CFR 20.203 and Conditions 17 and 18 of its license. Consequently, the NRC lacked reasonable assurance that the facility would be operated in a manner that assured that the health and safety of the public, including licensee employees, would be protected. The Order was made immediately effective pending the completion of an ongoing Commission investigation of these matters.

III

On March 6, 1986, licensee representatives met with NRC Region I staff to discuss planned improvements to the licensee's management controls as described in a letter to the NRC dated March 4, 1986. At that meeting the licensee requested the license suspension be lifted based on the improvements set forth in the March 4, 1986 submittal. During the March 6, 1986 meeting, the staff responded to the licensee's March 4 submittal and outlined those aspects which were inadequate. Subsequently, on March 10, 1986, the licensee provided the NRC with a more detailed description of its plans for addressing the NRC's concerns in the areas of procedural compliance, staff competence, electrical and mechanical system reliability, and clarification of license provisions.

IV

The licensee in its March 10, 1985 letter described improvements to upgrade its radiation safety program which included the hiring of two knowledgeable and qualified independent radiological safety consultants to (1) supervise the daily safety operations at the facility, and (2) provide oversight of those operations. Although the licensee remains responsible for all activities under its license, I have determined that these consultants have been given sufficient authority by the licensee to make necessary safety decisions, including shutdown of the facility, when necessary and appropriate. Accordingly, I have concluded that public health and safety will not be endangered by rescinding the Order Suspending the License (Effective Immediately). My decision is contingent, however, on the licensee's acceptance of and adherence to the conditions described in this Order. Failure to comply with those conditions may result in reinstatement of the suspension ordered on March 3, 1986.

V

In view of the foregoing, and pursuant to Sections 81, 161b and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR 2.202 and 10 CFR Part 30, the suspension of licensed activities imposed by the Order Suspending License (Effective Immediately) is hereby rescinded pending further order of the Commission subject to the following conditions:

- A. 1. Prior to the first use of licensed material following issuance of this Order, the Region shall receive a copy of the licensee's contract with Hydro Nuclear Services, Inc. so that the NRC can verify that the consultant's authority and responsibilities are in compliance with this order. The consultant shall have the authority to override any production schedule and/or directive and suspend all operations at the Rockaway facility should conditions arise that would cause or threaten to cause plant activities to be conducted in noncompliance with accepted radiological safety practices or NRC regulatory requirements including NRC license conditions. The consultant shall notify the Commission immediately if for any reason their ability to safely supervise daily operation of the facility is compromised.

Nothing in this Order relieves the licensee of its responsibilities under the license to safely operate the facility and direct its shutdown if problems are identified.

2. All licensed activities conducted under authorization of the license shall be supervised by the licensee's independent consultant (designated in the March 10 letter to be Hydro Nuclear Services, Inc.) in accordance with the statements, representations and procedures included in Section 1.0 (Management Controls) and Section 2.0 (Demonstration of Third and Fourth Party Independence) of the licensee's letter to the NRC dated March 10, 1986. At least one of the Hydro Nuclear Services, Inc. employees named in the March 10, 1986

letter, or other person approved by NRC Region I, in writing, shall be physically present at the licensee's Rockaway facility at all times when licensed material is in use. At any time when at least one of these named individuals is not present at the licensed facility, all licensed material shall remain in safe storage and the licensee may perform only those activities necessary to maintain the facility in a safe condition. The independent consultant responsible for daily operation and supervision shall provide the licensee's Board of Directors a written report every seven days summarizing the licensee's activities, any problems identified, and corrective actions taken. A copy shall be sent simultaneously to the Regional Administrator, Region I.

3. Prior to the first use of licensed material following issuance of this Order, the licensee shall assure that each person who will be performing any of the supervisory functions required by Section V.A.2 has received specific instructions in the RT-2102 irradiator system design and operation, or the R&D irradiator as appropriate, all control and safety devices, environmental controls (i.e., temperature and ozone), appropriate emergency response actions, and notification as described in Section 7.0 (Training) of the licensee's letter to the NRC dated March 10, 1986.

- 6 -

4. Prior to the first use of licensed material following issuance of this Order, the licensee shall instruct all personnel at the Rockaway facility in the organizational changes made and in the role and authority of each of the independent consultants. Each person who actually manipulates the controls of the irradiators shall be provided with a copy of this Order and the licensee's letter to the NRC dated March 10, 1986.
5. One of the individuals named in Section V.A.2 of this Order shall be physically present in the control room of the RT-2102 irradiator or at the controls of the R&D pool irradiator hoist during each startup or shutdown operation of the R&D irradiator until each operator has been observed and evaluated through three complete startup and shutdown (or operation) cycles. Following the three cycles of operation, the operator shall either be certified as qualified to operate the irradiator or removed from such duties and a retraining and requalification plan prepared and implemented. Records of the certification and any retraining and requalification shall be made and maintained for inspection by the Commission.

*Make
Chart*

6. At least once in each calendar week (Monday through Sunday), Michael J. Slobodien, or other approved fourth party auditor, shall conduct an unannounced audit of the Rockaway facility to examine the operation of the interim operations organization and implement the quality assurance program for radiological safety in accordance with Section 6.0 (Quality Assurance Program) of the licensee's letter to the NRC dated March 10, 1986. The first such visit shall be conducted within seven days following commencement of operations. Written results of the audits shall be submitted to the licensee's Board of Directors, with a copy sent simultaneously to the Regional Administrator, Region I, within seven days of the conclusion of the audit. Should Mr. Slobodien terminate his services, or be terminated by the licensee, the Regional Administrator shall be immediately notified. Unless another individual is substituted for Mr. Slobodien after prior approval of NRC Region I, at the beginning of the eighth day following his last audit of the facility all licensed material shall be placed in safe storage and the licensee may perform only those activities necessary to maintain the facility in a safe condition.

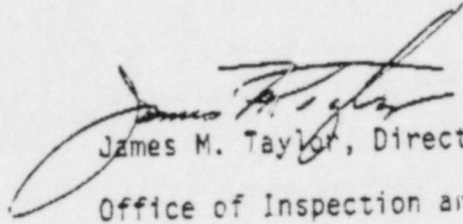
7. The licensee shall develop a written surveillance and preventive maintenance program for all components and systems important to safe operation of the facility and take all other actions described in Section 5.0 (Surveillance System) of the licensee's letter to the NRC dated March 10, 1986. The written plan shall specifically identify each component or system important to safe operation of the facility and shall be submitted to the Commission by June 30, 1986 with a request to amend the license to include the plan.
8. The licensee shall develop a comprehensive written plan for documenting and controlling physical changes and repairs to the RT-2102 and R&D pool irradiators. This plan shall include drawing control, written approval of each physical change of components or systems important to safe operation of the facility, and an as-built inspection of each repair and/or change by an individual who has not performed the change or repair. This plan shall be submitted to the Commission by July 31, 1986 with a request to amend the license to include it.

9. All notifications required by this Order shall be made by telephone to the NRC Region 1 Office at 215-337-5000 during normal business hours and at 301-951-0550 during other hours. Each such notification shall be confirmed in writing the next business day. Written reports and notifications shall be addressed to the Regional Administrator, 631 Park Avenue, King of Prussia, Pennsylvania 19406.
 10. The licensee shall operate the RT-2102 irradiator using the conveyor interlock system described in the licensee's letters to the NRC dated January 9, January 15, and February 7, 1986.
- B. Except as specifically provided by Section V.A of this Order, the licensee shall possess and use licensed material in accordance with the existing license, as renewed on August 17, 1981 and most recently amended on August 9, 1985, and the statements, representations, and procedures contained in the licensee's letter to the NRC dated March 10, 1986.
- C. The Regional Administrator, Region 1, may relax or rescind any of the above provisions upon demonstration of good cause by the licensee.

VI

This Conditional Rescission of Order Suspending License is effective upon written consent to its terms by the licensee. The licensee's consent to the terms of this Order shall be submitted to NRC Region I.

FOR THE NUCLEAR REGULATORY COMMISSION


James M. Taylor, Director
Office of Inspection and Enforcement

Dated at Bethesda, Maryland,
this 13th day of March 1986.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

13 MAR 1986

Docket No. 30-07022
License No. 29-13613-02
EA 86-17

Radiation Technology, Incorporated
ATTN: Martin A. Welt, Ph.D.
President
Rockaway Industrial Park
Lake Denmark Road
Rockaway, New Jersey 07066

Gentlemen:

SUBJECT: CONDITIONAL RESCISSION OF ORDER SUSPENDING LICENSE

This refers to your letters to the Nuclear Regulatory Commission dated March 4 and 10, 1986, and to the meeting held with you in the NRC Region I office on March 6, 1986, in response to the Order Suspending License issued by the NRC on March 3, 1986. In your two letters, and during the meeting, you described your commitments for upgrading the management control systems at the Rockaway facility, including plans for assuring strict procedural compliance, improving staff competence, improving electrical and mechanical system reliability and clarifying license conditions. Among other things, you committed to hire independent radiological safety consultants to supervise daily safety operation of the facility and to provide oversight of those operations. On the basis of these commitments, you requested that the NRC lift the suspension while ongoing NRC investigations are continuing.

My Order of March 3, 1986 provided it could be relaxed or rescinded for good cause shown. We have reviewed your commitments as described in your March 10, 1986 letter and have determined that, subject to the conditions specified in the enclosed Order, an adequate basis has been provided for conditionally lifting the suspension Order. Accordingly, we hereby serve on you the enclosed Conditional Rescission of the Order Suspending the License. Failure to comply with the conditions in the Order may result in reinstatement of the suspension ordered on March 3, 1986.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed Conditional Rescission of Order Suspending License will be placed in the NRC's Public Document Room.

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

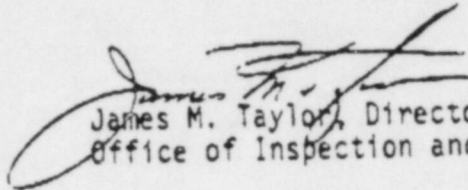
ML10
11
ALL-100

8701160309 — 2pp.

OD 12 86 16106 16106 16106 16106 16106
Radiation Technology, Incorporated - 2 -

A response to this letter or the accompanying Order is not subject to the clearance procedures of the Office of Management and Budget, as required by the Paperwork Reduction Act of 1980, PL 96-511.

Sincerely,


James M. Taylor, Director
Office of Inspection and Enforcement

Enclosure:
Conditional Rescission of Order Suspending License

cc w/enc1:
Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
State of New Jersey
State of North Carolina
State of Arkansas

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of

RADIATION TECHNOLOGY, INCORPORATED
Lake Denmark Road
Rockaway, New Jersey 07866

} Docket No. 30-07022
} License No. 29-13613-02
} EA 86-17
}

CONDITIONAL RESCISSION OF ORDER SUSPENDING THE LICENSE

I

Radiation Technology, Incorporated, Lake Denmark Road, Rockaway, New Jersey 07866 (the licensee) is the holder of a byproduct material license issued by the Nuclear Regulatory Commission (the Commission or NRC) pursuant to 10 CFR Part 30. The license, which was issued on November 18, 1970, most recently renewed on August 17, 1981, and due to expire on August 31, 1986, authorizes the licensee to perform certain activities using byproduct material in accordance with criteria specified therein. This authorization includes, among other activities, the use of specified radioactive sources, not to exceed 12,000 curies per source and 2,000,000 curies total, for service irradiation in the licensee's Radiation Technology (RT) Model 2102 service irradiator.

II

An Order Suspending the License (Effective Immediately) was issued on March 3, 1986. The Order suspended all operations authorized by License No. 29-13613-02 and required that the licensee place and maintain all sources in their fully shielded position at the bottom of the irradiator pools, and conduct only those licensed activities required to maintain the facility in a safe condition.

This Order was based on the finding, during several NRC inspections, that licensee personnel had defeated required safety interlocks associated with the RT-2102 irradiator in violation of Commission requirements, including 10 CFR 20.203 and Conditions 17 and 18 of its license. Consequently, the NRC lacked reasonable assurance that the facility would be operated in a manner that assured that the health and safety of the public, including licensee employees, would be protected. The Order was made immediately effective pending the completion of an ongoing Commission investigation of these matters.

III

On March 6, 1986, licensee representatives met with NRC Region I staff to discuss planned improvements to the licensee's management controls as described in a letter to the NRC dated March 4, 1986. At that meeting the licensee requested the license suspension be lifted based on the improvements set forth in the March 4, 1986 submittal. During the March 6, 1986 meeting, the staff responded to the licensee's March 4 submittal and outlined those aspects which were inadequate. Subsequently, on March 10, 1986, the licensee provided the NRC with a more detailed description of its plans for addressing the NRC's concerns in the areas of procedural compliance, staff competence, electrical and mechanical system reliability, and clarification of license provisions.

IV

The licensee in its March 10, 1985 letter described improvements to upgrade its radiation safety program which included the hiring of two knowledgeable and qualified independent radiological safety consultants to (1) supervise the daily safety operations at the facility, and (2) provide oversight of those operations. Although the licensee remains responsible for all activities under its license, I have determined that these consultants have been given sufficient authority by the licensee to make necessary safety decisions, including shutdown of the facility, when necessary and appropriate. Accordingly, I have concluded that public health and safety will not be endangered by rescinding the Order Suspending the License (Effective Immediately). My decision is contingent, however, on the licensee's acceptance of and adherence to the conditions described in this Order. Failure to comply with those conditions may result in reinstatement of the suspension ordered on March 3, 1986.

V

In view of the foregoing, and pursuant to Sections 81, 161b and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR 2.202 and 10 CFR Part 30, the suspension of licensed activities imposed by the Order Suspending License (Effective Immediately) is hereby rescinded pending further order of the Commission subject to the following conditions:

- A. 1. Prior to the first use of licensed material following issuance of this Order, the Region shall receive a copy of the licensee's contract with Hydro Nuclear Services, Inc. so that the NRC can verify that the consultant's authority and responsibilities are in compliance with this order. The consultant shall have the authority to override any production schedule and/or directive and suspend all operations at the Rockaway facility should conditions arise that would cause or threaten to cause plant activities to be conducted in noncompliance with accepted radiological safety practices or NRC regulatory requirements including NRC license conditions. The consultant shall notify the Commission immediately if for any reason their ability to safely supervise daily operation of the facility is compromised.

Nothing in this Order relieves the licensee of its responsibilities under the license to safely operate the facility and direct its shutdown if problems are identified.

2. All licensed activities conducted under authorization of the license shall be supervised by the licensee's independent consultant (designated in the March 10 letter to be Hydro Nuclear Services, Inc.) in accordance with the statements, representations and procedures included in Section 1.0 (Management Controls) and Section 2.0 (Demonstration of Third and Fourth Party Independence) of the licensee's letter to the NRC dated March 10, 1986. At least one of the Hydro Nuclear Services, Inc. employees named in the March 10, 1986

letter, or other person approved by NRC Region I, in writing, shall be physically present at the licensee's Rockaway facility at all times when licensed material is in use. At any time when at least one of these named individuals is not present at the licensed facility, all licensed material shall remain in safe storage and the licensee may perform only those activities necessary to maintain the facility in a safe condition. The independent consultant responsible for daily operation and supervision shall provide the licensee's Board of Directors a written report every seven days summarizing the licensee's activities, any problems identified, and corrective actions taken. A copy shall be sent simultaneously to the Regional Administrator, Region I.

3. Prior to the first use of licensed material following issuance of this Order, the licensee shall assure that each person who will be performing any of the supervisory functions required by Section V.A.2 has received specific instructions in the RT-2102 irradiator system design and operation, or the R&D irradiator as appropriate, all control and safety devices, environmental controls (i.e., temperature and ozone), appropriate emergency response actions, and notification as described in Section 7.0 (Training) of the licensee's letter to the NRC dated March 10, 1986.

4. Prior to the first use of licensed material following issuance of this Order, the licensee shall instruct all personnel at the Rockaway facility in the organizational changes made and in the role and authority of each of the independent consultants. Each person who actually manipulates the controls of the irradiators shall be provided with a copy of this Order and the licensee's letter to the NRC dated March 10, 1986.

5. One of the individuals named in Section V.A.2 of this Order shall be physically present in the control room of the RT-2102 irradiator or at the controls of the R&D pool irradiator hoist during each startup or shutdown operation of the R&D irradiator until each operator has been observed and evaluated through three complete startup and shutdown (or operation) cycles. Following the three cycles of operation, the operator shall either be certified as qualified to operate the irradiator or removed from such duties and a retraining and requalification plan prepared and implemented. Records of the certification and any retraining and requalification shall be made and maintained for inspection by the Commission.

*Make
check*

6. At least once in each calendar week (Monday through Sunday), Michael J. Slobodien, or other approved fourth party auditor, shall conduct an unannounced audit of the Rockaway facility to examine the operation of the interim operations organization and implement the quality assurance program for radiological safety in accordance with Section 6.0 (Quality Assurance Program) of the licensee's letter to the NRC dated March 10, 1986. The first such visit shall be conducted within seven days following commencement of operations. Written results of the audits shall be submitted to the licensee's Board of Directors, with a copy sent simultaneously to the Regional Administrator, Region I; within seven days of the conclusion of the audit. Should Mr. Slobodien terminate his services, or be terminated by the licensee, the Regional Administrator shall be immediately notified. Unless another individual is substituted for Mr. Slobodien after prior approval of NRC Region I, at the beginning of the eighth day following his last audit of the facility all licensed material shall be placed in safe storage and the licensee may perform only those activities necessary to maintain the facility in a safe condition.

7. The licensee shall develop a written surveillance and preventive maintenance program for all components and systems important to safe operation of the facility and take all other actions described in Section 5.0 (Surveillance System) of the licensee's letter to the NRC dated March 10, 1986. The written plan shall specifically identify each component or system important to safe operation of the facility and shall be submitted to the Commission by June 30, 1986 with a request to amend the license to include the plan.

8. The licensee shall develop a comprehensive written plan for documenting and controlling physical changes and repairs to the RT-2102 and R&D pool irradiators. This plan shall include drawing control, written approval of each physical change of components or systems important to safe operation of the facility, and an as-built inspection of each repair and/or change by an individual who has not performed the change or repair. This plan shall be submitted to the Commission by July 31, 1986 with a request to amend the license to include it.

9. All notifications required by this Order shall be made by telephone to the NRC Region I Office at 215-337-5000 during normal business hours and at 301-951-0550 during other hours. Each such notification shall be confirmed in writing the next business day. Written reports and notifications shall be addressed to the Regional Administrator, 631 Park Avenue, King of Prussia, Pennsylvania 19406.

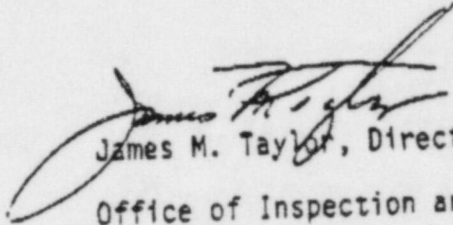
10. The licensee shall operate the RT-2102 irradiator using the conveyor interlock system described in the licensee's letters to the NRC dated January 9, January 15, and February 7, 1986.

- B. Except as specifically provided by Section V.A of this Order, the licensee shall possess and use licensed material in accordance with the existing license, as renewed on August 17, 1981 and most recently amended on August 9, 1985, and the statements, representations, and procedures contained in the licensee's letter to the NRC dated March 10, 1986.
- C. The Regional Administrator, Region I, may relax or rescind any of the above provisions upon demonstration of good cause by the licensee.

VI

This Conditional Rescission of Order Suspending License is effective upon written consent to its terms by the licensee. The licensee's consent to the terms of this Order shall be submitted to NRC Region I.

FOR THE NUCLEAR REGULATORY COMMISSION


James M. Taylor, Director
Office of Inspection and Enforcement

Dated at Bethesda, Maryland,
this 13th day of March 1986.