

RTI Inc.

K-7

108 LAKE DENMARK ROAD, ROCKAWAY, NJ 07866
(201) 625-8400 • FAX (201) 625-7820

July 24, 1989

Mr. Lee H. Bettenhausen, Chief
Nuclear Materials Safety Branch
United States Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406

License No. 29-13613-02

Dear Mr. Bettenhausen:

This is in reply to your letter of July 21, 1989 requesting a reply by today's date, the next business day. Upon review of your letter, we believe that some misunderstandings should be resolved. RTI anticipated Mr. T. Varaklis's departure from the company. (Recently therefore, RTI has undertaken a search for a qualified replacement to provide adequate coverage.) Due to the untimeliness of Mr. Varaklis's announced departure, we had not completed exploring all areas. RTI chose to obtain interim support from a consulting service familiar with irradiator operations to assure effective radiation safety programs. During this interim period we will gain the necessary assurance that our people in fact have the necessary expertise and experience to supervise a radiation safety program. Additionally, as stated previously, Mr. Varaklis will remain as a consulting RSO on call 24 hours per day as stated by written agreement, for an interim period. Therefore Westinghouse Radiological Services, Inc. our consulting service, and Mr. Varaklis will jointly support licensed operations during this interim filling the position continuously and adequately.

Process Technology of North Jersey is adding to its license amendment application of May 1, 1989 to include Mr. John Singleton as RSO for the Process Technology of North Jersey facility.

As specified in the NRC Regulatory Guide for the Preparation of Applications for Licenses for the Use of Panoramic Dry Source-Storage Irradiators item #7 we are supplying the following information:

- #1 Name of Individual - Mr. John Singleton
- #2 Over 80 hours of training covering the principles and fundamentals of radiation protection and good safety practices related to the use of radioactive materials; radioactivity measurements, use of radiation detection and measuring instruments, and monitoring techniques;

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page 2

Mr. Lee H. Bettenhausen

July 24, 1989

mathematics and calculations basic to the use and measurement of radioactivity; and biological effects of radiation.

1963 - 1965	US Navy - USS Greenfish - Nuclear Weapons Training
1965 - 1967	US Navy - USS Queenfish SSN 651- Nuclear Submarine and Weapons Training
August 1986	24 hours RTI Operator Training by L. Ross.
Jan. 1987	RTI Operator Training including 40 hours of classroom and 4 months of on-the-job Training, certified by Dr. R. Cockrell.
March 1987	Eight hours of RTI Operator requalification Training by L. Ross.
Jan. 1988	Four hours of Operator requalification Training by J. Russen.
March 1989	One hour Irradiator Safety Interlock Training by J. Russen.
1987 - 1989	Over 40 hours of one on one training as RSS by T. Varaklis and or J. Russen including radiation safety, RSS responsibilities, movement of cobalt, receipt and shipping of cobalt.

#3 Worked as responsible individual/operator and Plant Superintendent from August 1986 to present. Held the position of RSS from 1987 to present.

We believe Mr. Singleton meets all of the NRC requirements as specified in the NRC Regulatory Guide. He has been appointed as the RSO for the Process Technology of North Jersey facility.

Mr. Buring, from Westinghouse Radiological Services, Inc. will be receiving a copy of our operating and emergency procedures for review prior to arriving on-site. He will perform a walk down of our system and observe operations to complete his training of our licensed operations. To assure that he has a good working knowledge of RTI irradiator activities he will be given the irradiator operator examination. He must receive a score of 85% or better on the exam before he will be allowed to assume responsibility for directing licensed operations. Mr. Buring will have the same authority that Mr. Varaklis had for directing licensed activities. Where Mr. Varaklis had some specialized knowledge peculiar to our licensed activities, he will be called upon to provide support in those areas.

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Mr. Lee H. Bettenhausen

July 24, 1989

The information concerning the professional and on-call hourly rates for Mr. Buring should not have been sent to you as they represent our confidential financial arrangements with Westinghouse for contracted service. It is our understanding that Westinghouse Radiological Services, Inc. considers this financial information to be proprietary. However, please note that Mr. Buring will be on-site to perform the necessary duties and functions of Corporate RSO and additionally will be on-call 24 hours a day.

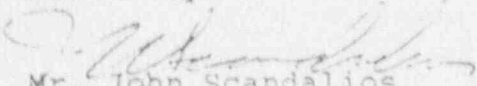
Mr. J. Singleton will be moved into Mr. Russens position as site RSO and also be on call 24 hours per day. This will provide continuous coverage and allow RTI to proceed with operations as it has in the past. Therefore the RTI organizational chart has not changed except for some names. Position responsibilities are still the same.

RTI will continue to have the audit program in place as required by license condition 20 A. It should be noted that this was a unique condition imposed by the NRC and to our knowledge is usually not found among other industrial licensees. NRC should recall that it was imposed because of its concerns about previous management personnel at the time of imposition in 1986. The management of RTI has been completely changed since 1986.

With regard to Messrs. Shapiro and Schlecht's qualifications, we believe we may not have properly demonstrated their qualifications to you. We wish to discuss this item with you at the July 27, 1989 meeting as well as the audits required under license condition 20 A.

We hope that you find this information responsive to your letter of July 21, 1989. Should you have any questions please contact me at (201) 625- 8400.

Sincerely;


Mr. John Scandalios
President

MATERIALS LICENSE

Amendment No. 27

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, 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 by product, 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 persons 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 1. Process Technology of North Jersey Subsidiary of RTI Inc. 2. Lake Denmark Road Rockaway, New Jersey 07866		In accordance with letter dated May 1, 1989, 3. License number 29-13613-02 is amended in its entirety to read as follows:	
		4. Expiration date	March 31, 1990
		5. Docket or Reference No	030-07022
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. Cobalt 60	A. Sealed Sources - as authorized by Condition 12 of this license	A. Not to exceed 12,000 curies per source; 3,000,000 curies total activity	
B. Cobalt 60	B. Sealed Source	B. 320 curies	
C. Strontium 90	C. Sealed Source	C. 30 microcuries	
D. Strontium 90	D. Sealed Source	D. 120 millicuries	
E. Hydrogen 3	E. Contamination on ion pump	E. 15 curies	
F. Scandium 46 (with trace activation products)	F. Gemstones	F. 10 millicuries	
G. Cobalt 60	G. Contamination in any form	G. 10 millicuries	
H. Cesium 134	H. Rocks	H. 0.1 millicuries	

9. Authorized use
- A. For use in the Radiation Technology Model 2102 Irradiator for service irradiation; for storage, inspection of sources, and preparation for transfer in the R and D pool irradiator. Irradiation of material is not authorized in the R and D pool irradiator.
 - B. For storage only in the self-contained AMERAY Irradiator (Dwg. AM-1862-1).
 - C. For use in instrument calibrations.
 - D. through H. For storage only.

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CONDITIONS

- 10. Licensed material shall be used only at the licensee's facility on Lake Denmark Road, Rockaway, New Jersey.
- 11. A. Licensed material specified in item 7.A. shall be used by, or under the supervision of individuals who have completed the training and examination described in application dated December 12, 1988 and who have been approved in writing by the Radiation Safety Officer.

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MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number	29-13613-02
Docket or Reference number	030-07022
Amendment No. 27	

(11. Continued) CONDITIONS

- B. At least one individual qualified under Condition 11.A. shall be physically present at the authorized place of use whenever licensed material is being used.
- C. Licensed material specified in items 7.B., 7.C., 7.D., 7.E., 7.F., 7.G. and 7.H. shall be used by, or under the supervision of, individuals approved in writing by the Radiation Safety Officer.
- D. The Radiation Safety Officer for this license is John Russen. When John Russen ceases performing the duties of Radiation Safety Officer and for a period of 120 days thereafter the Interim Radiation Safety Officer for this license shall be John Singleton. During this interim period, Michael Buring shall be at the Rockaway site for at least 24 hours per week. The licensee shall make a record of the last day on which Mr. Russen performs the duties of Radiation Safety Officer and maintain the record for inspection by the Commission.
- E. Neither Martin Welt, Ph.D., William Jouris, nor Thomas Powell shall perform any services for Radiation Technology, Incorporated, as an officer, employee or consultant and Radiation Technology, Incorporated, must comply with the other conditions regarding Dr. Welt described in Item A on pages 2 and 3 of Radiation Technology's July 18, 1986 Answer To Immediately Effective Order Suspending Licenses.

12. The licensee is authorized to use the following sealed sources in the irradiator:

<u>Manufacturer</u>	<u>Model No.</u>
AECL	C-188, Types 1, 2, 3 or 4
Neutron Products	12-S-3, NPI 12-C-3, 10-C-3, 10-S-3, 12-C-3, 11-S-2, 11-C-2, 12-CC-5, 24-CC-5, NPI-77-351 thru NPI-77-358, NPI-77-361 thru NPI-77-364, 353, 752, 853, Model Drawing 200243, Rev. D
General Electric	GEP-186, GEPR-183, GE-SR-187

13. A. The ion exchange resin filter beds shall be monitored as specified in application dated June 3, 1987. Whenever an apparent increase in radiation levels twice that caused by normal background at the beds is detected, the licensee shall immediately cease operations and determine the cause of the increase.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number 29-13613-02

Docket or Reference number 030-07022

Amendment No. 27

(13. Continued)

CONDITIONS

B. If the increase is caused by a leaking source, the source shall be removed from the pool and repaired or disposed in accordance with Commission regulations prior to resuming operations. If the increase is caused by another source of radiation or radioactivity, then that cause shall be removed and the pool water decontaminated, if necessary, prior to resuming operations. If the apparent increase was caused by an instrument fault, the fault shall be corrected and the instrument appropriately recalibrated prior to resuming operations.

C. For each actual increase in radioactivity in pool water causing an increase in radiation levels twice that caused by normal background at the ion exchange resin filter beds, a report shall be filed within 5 days of the increase with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406, describing the results of the determination required by Condition 13.A above, the schedule for removal and disposal of the source of the radioactivity, and the procedures followed or to be followed for the decontamination of the pool water, and the results achieved to date.

14. A. (1) Any sealed sources specified in Items 7.B. and 7.D. shall be tested for leakage and/or contamination at intervals not to exceed 6 months. Any source received from another person which is not accompanied by a certificate indicating that a leak test was performed within 6 months before the transfer shall not be put into use until tested.
- (2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.
- B. Any sealed source in storage and not being used need not be tested. When the source is removed from storage for use or transfer to another person, it shall be tested before use or transfer.
- C. The leak test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A report shall be filed, within 5 days of the date the leak test result is known, with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Leak test records may be disposed of following Commission inspection.
- D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to perform such services.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number:	29-13613-02
Docket or Reference number:	030-07022
Amendment No. 27	

(Continued)

CONDITIONS

15. After installation of additional Cobalt 60 source(s) greater than the quantity for which a previous radiation survey has been conducted, and prior to initiation of the irradiation program, a radiation survey shall be conducted to determine the maximum radiation levels in each area adjoining the irradiation room. A detailed report in duplicate of the results of the surveys shall be sent to the U. S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406, not later than thirty (30) days following installation of the source(s).
16. Sealed sources containing licensed material shall not be opened by the licensee.
17. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 2 years from the date of each inventory.
18. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material".
19. Irradiation and distribution of foods for human consumption shall be in accordance with rules and regulations of the Food and Drug Administration, U.S. Department of Health and Human Services.
20. A. During the each three-month period, an individual listed in condition 20.C. shall visit the facility at least once without prior notice to the staff or management and spend a total of at least eight hours observing operations, auditing compliance with Commission regulations and license conditions and inspecting the condition of equipment important to safe operation of the facility. A written report of the findings during each period shall be prepared and simultaneously submitted to the Board of Directors of RTI, Inc. and the U.S. Nuclear Regulatory Commission, 475 Allendale Road, King of Prussia, Pennsylvania 19406 within five working days following the end of the audit. Within ten working days of the filing of each report the licensee shall provide the Commission, at the above address, and the Board of Directors of RTI, Inc., a written description of any corrective actions in response to the audit findings. Each audit shall include a review of any corrective actions for previous findings.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

29-13613-02

Docket or Reference number

030-07022

Amendment No. 27

(Continued)

CONDITIONS

24. The licensee shall characterize and plan for the removal, packaging, and disposal, as appropriate, of all licensed material specified in Items 7.E., 7.F., 7.G., and 7.H., including onsite and offsite contaminated soil. These activities shall be completed in accordance with the following schedule:
- A. By December 23, 1988, the licensee shall submit to the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406 a survey report which characterizes the extent of all onsite and offsite radioactive contamination associated with the previous operations of the licensee and fully describes all radioactive materials authorized by Items 7.E., 7.F., 7.G., and 7.H. of this license, including all buried radioactive material.
 - B. The licensee shall notify U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406 immediately, when soil contamination is identified to exceed the following thresholds:
 - (i) 8 picocuries per gram, or
 - (ii) radiation levels one meter above the ground, due to soil contamination, exceed background radiation levels by greater than 10 microrems per hour.
 - C. The licensee shall notify U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406 immediately, when any object or artifact contaminated in excess of background radiation levels is uncovered or identified.
 - D. By March 23, 1989, the licensee shall submit to the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406 a plan and schedule for the removal, packaging, and disposal of all radioactive materials authorized by Items 7.E., 7.F., 7.G., and 7.H., including all buried radioactive materials.
25. The licensee shall plan and complete the removal, packaging, and disposal of the licensed material specified in Item 7.A. which is stored in the R and D pool. These activities shall be completed in accordance with the following schedule:
- A. By March 23, 1989, the licensee shall submit to the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406 a plan and schedule for the removal, packaging, and disposal of all the sealed sources stored in the R and D pool.
 - B. By December 23, 1989, the licensee shall remove all the sealed sources from the R&D pool and transfer them to a person authorized to receive such material.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

29-13613-02

Docket or Reference number

030-07022

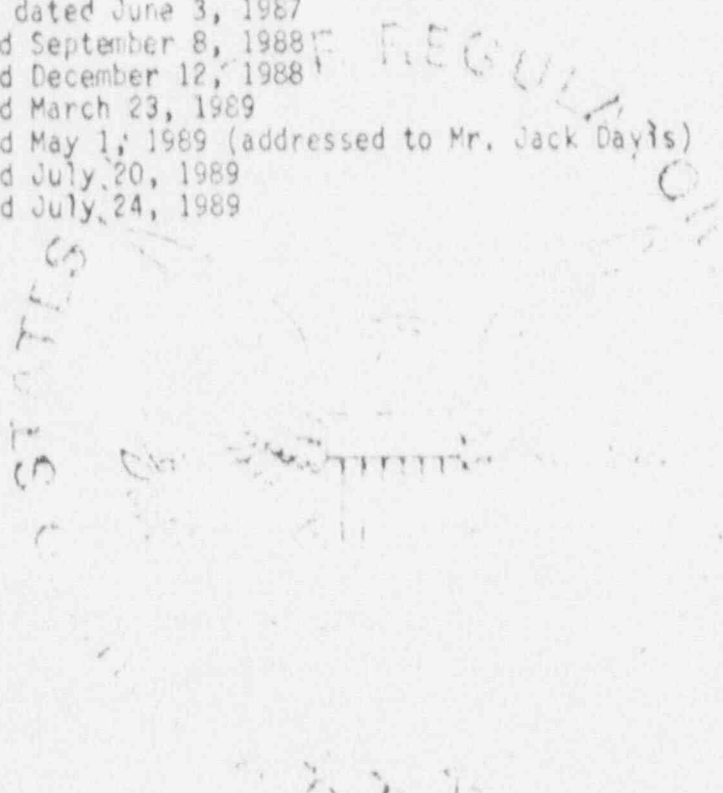
Amendment No. 27

(Continued)

CONDITIONS

26. 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 any enclosures, listed below. The 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.

- A. Application dated June 3, 1987
- B. Letter dated September 8, 1988
- C. Letter dated December 12, 1988
- D. Letter dated March 23, 1989
- E. Letter dated May 1, 1989 (addressed to Mr. Jack Day's)
- F. Letter dated July 20, 1989
- G. Letter dated July 24, 1989



Date JUL 28 1989

For the U.S. Nuclear Regulatory Commission

Original Signed By:

By John D. Kinneman

Nuclear Materials Safety Branch
Region I

King of Prussia, Pennsylvania 19406

JUL 28 1989

License No. 29-13613-02
Docket No. 030-07022
Control No. 110673

Process Technology of North Jersey
Subsidiary of RTI, Inc.
ATTN: John N. Scandalios
President
108 Lake Denmark Road
Rockaway, New Jersey 07866

Gentlemen:

Please find enclosed an amendment to your NRC Material License.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the Region I Material Licensing Section, (215) 337-5239, so that we can provide appropriate corrections and answers.

Please be advised that you must conduct your program involving licensed radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, please note the items in the enclosed, "Requirements for Materials Licensees."

Please note that we have approved Mr. J. Singleton as an Interim Radiation Safety Officer until 120 days after John Russen ceases performing the duties of Radiation Safety Officer. Prior to the end of the 120 day period, you must request that your license be amended to reflect your permanent Radiation Safety Officer. Condition 11.D. requires that Mr. M. Buring be on-site for a substantial portion of the work week (at least 24 hours per week) during this interim period. In addition, you are required to perform monthly audits during the interim as required in Condition 20.B. As discussed at a meeting attended by yourself at our office on July 27, 1989, this license amendment is not based on, and does not require, the renewal of the consulting arrangement with T. Varaklis beyond the initial 3 month period.

Since serious consequences to employees and the public can result from failure to comply with NRC requirements, the NRC expects licensees to pay meticulous attention to detail and to achieve the high standard of compliance which the NRC expects of its licensees.

... will be periodically inspected by NRC. A fee may be charged for inspections in accordance with 10 CFR Part 170. Failure to conduct your program safely and in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in prompt and vigorous enforcement action against you.

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This could include issuance of a notice of violation, or in case of serious violations, an imposition of a civil penalty or an order suspending, modifying or revoking your license as specified in the General Policy and Procedures for NRC Enforcement Actions, 10 CFR Part 2, Appendix C.

We wish you success in operating a safe and effective licensed program.

Sincerely,

Original Signed By:
John D. Kinneman

John D. Kinneman, Chief
Nuclear Materials Safety Section B
Division of Radiation Safety
and Safeguards

Enclosures:

- 1. Amendment No. 27
- 2. Requirements for Materials Licensees

[Signature]
DRSS:RI
Taylor/kl
7/28/89

[Signature]
DRSS:RI
Miller
7/28/89

[Signature]
DRSS:RI
Davis
7/28/89

[Signature]
DRSS:RI
Kinneman
7/28/89

LICENSE NO.: 29-13613-02

CONTROL NO.: 110673

BUCKET NO.: 10-67022

LICENSEE: RADIATION TECHNOLOGY, INC.

ACTION TYPE: AMENDMENT

CERTIFICATION OF APPLICATION REVIEW FOR A PART 302.40 AND 70 LICENSE

I CERTIFY THAT I HAVE REVIEWED THE APPLICATION, DATED May 1, 1989,
SUPPLEMENTED BY ANY LITERS REFERENCED IN THE LICENSE, IN ACCORDANCE WITH
GUIDANCE PROVIDED BY THE OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARD
APPLICATIONS STANDARDS REVIEW PLAN AND ASSOCIATED CHECKLIST AND HAVE
CONCLUDED THAT:

- (1) THE APPLICATION IS FOR A PURPOSE AUTHORIZED BY THE ACT;
- (2) THE APPLICANT'S PROPOSED EQUIPMENT AND FACILITIES ARE ADEQUATE
TO PROTECT HEALTH AND MINIMIZE DANGERS TO LIFE OR PROPERTY;
- (3) THE APPLICANT IS QUALIFIED BY TRAINING AND EXPERIENCE TO USE
THE MATERIAL FOR THE PURPOSES REQUESTED IN SUCH MANNER AS TO
PROTECT HEALTH AND MINIMIZE DANGERS TO LIFE;
- (4) THE APPLICATION IS NOT FOR COMMERCIAL WASTE DISPOSAL BY LEAD
OR FOR ANY OTHER ACTIVITY WHICH THE COMMISSION HAS
DETERMINED WILL SIGNIFICANTLY AFFECT THE QUALITY OF THE
ENVIRONMENT.

Margaret Taylor 7/28/89
REVIEWER

John D. Martin 7/28/89
PERSON SIGNING FOR LICENSEE

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DEFINING

LICENSEE FEE MANAGEMENT BRANCH, AEM
REGIONAL LICENSING SECTIONS

: (FOR LEADS USE)
: INFORMATION FROM LTR
: *****
: PROGRAM CODE: 01501
: STATUS CODE: A
: FEE CATEGORY: 00 00
: EXP. DATE: 11/30/88
: FEE COMMENT: STORAGE_OF_SELF-D
: *****

LICENSE FEE TRANSMITTAL

4. REGION I

1. APPLICATION ATTACHED

APPLICANT/LICENSTE: PROCESS TECHNOLOGY OF NORTH JERSEY
EFFECTIVE DATE: 1/1/89
PROJECT NO: 3007242
CONTROL NO: 111174
LICENSE NO: 24-1751-01
ACTION TYPE: EXPIRE/RENEW

2. FEE ATTACHED

AMOUNT: \$
CHECK NO: _____

3. COMMENTS

*Faced in request
Expedite, ple*

SIGNED
DATE

D. Forte

3/2/89

1. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MULTIPLE FEES ENTERED) 1.50

2. FEE CATEGORY AND BALANCE _____

3. CONTACT FEE PAID, APPLICATION MAY BE PROCESSED FOR: Cont # 110673

EXPIRE/RENEW
RENEWAL
LICENSE

3. OTHER _____

SIGNED
DATE

Ms. Messer

3/8/89

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CORRECTED COPY

MATERIALS LICENSE

Amendment No. 26

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, 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 by product, 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 persons 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.

<p>Licensee</p> <p>1. Process Technology of North Jersey Subsidiary of RTI Inc.</p> <p>2. Lake Denmark Road Rockaway, New Jersey 07866</p>	<p>In accordance with letter dated December 12, 1988,</p> <p>3. License number 29-13613-02 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date March 31, 1990</p> <hr/> <p>5. Docket or Reference No 030-07022</p>
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CONDITIONS

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MATERIALS LICENSE
SUPPLEMENTARY SHEETLicense number
29-13613-02Docket or Reference number
030-07022

CORRECTED COPY

Amendment No. 26

(11. Continued)

CONDITIONS

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- C. Licensed material specified in items 7.B., 7.C., 7.D., 7.E., 7.F., 7.G. and 7.H. shall be used by, or under the supervision of, individuals approved in writing by the Radiation Safety Officer.
- D. The Radiation Safety Officer for the activities authorized by this license shall be John Russen.
- E. Neither Martin Welt, Ph.D., William Jouris, nor Thomas Powell shall perform any services for Radiation Technology, Incorporated, as an officer, employee or consultant and Radiation Technology, Incorporated, must comply with the other conditions regarding Dr. Welt described in Item A on pages 2 and 3 of Radiation Technology's July 18, 1986 Answer To Immediately Effective Order Suspending Licenses.

12. The licensee is authorized to use the following sealed sources in the irradiator:

<u>Manufacturer</u>	<u>Model No.</u>
AECL	G-188, Types 1, 2, 3 or 4
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General Electric	GEP-186, GEPR-183, GE-SR-187

13. A. The ion exchange resin filter beds shall be monitored as specified in application dated June 3, 1987. Whenever an apparent increase in radiation levels twice that caused by normal background at the beds is detected, the licensee shall immediately cease operations and determine the cause of the increase.
- B. If the increase is caused by a leaking source, the source shall be removed from the pool and repaired or disposed in accordance with Commission regulations prior to resuming operations. If the increase is caused by another source of radiation or radioactivity, then that cause shall be removed and the pool water decontaminated, if necessary, prior to resuming operations. If the apparent increase was caused by an instrument fault, the fault shall be corrected and the instrument appropriately recalibrated prior to resuming operations.

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C. For each actual increase in radioactivity in pool water causing an increase in radiation levels twice that caused by normal background at the ion exchange resin filter beds, a report shall be filed within 5 days of the increase with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406, describing the results of the determination required by Condition 13.A above, the schedule for removal and disposal of the source of the radioactivity, and the procedures followed or to be followed for the decontamination of the pool water, and the results achieved to date.

14. A. (1) Any sealed sources specified in Items 7.B. and 7.D. shall be tested for leakage and/or contamination at intervals not to exceed 6 months. Any source received from another person which is not accompanied by a certificate indicating that a leak test was performed within 6 months before the transfer shall not be put into use until tested.
- (2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.
- B. Any sealed source in storage and not being used need not be tested. When the source is removed from storage for use or transfer to another person, it shall be tested before use or transfer.
- C. The leak test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A report shall be filed, within 5 days of the date the leak test result is known, with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Leak test records may be disposed of following Commission inspection.
- D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to perform such services.

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15. After installation of additional Cobalt 60 source(s) greater than the quantity for which a previous radiation survey has been conducted, and prior to initiation of the irradiation program, a radiation survey shall be conducted to determine the maximum radiation levels in each area adjoining the irradiation room. A detailed report in duplicate of the results of the surveys shall be sent to the U. S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406, not later than thirty (30) days following installation of the source(s).
16. Sealed sources containing licensed material shall not be opened by the licensee.
17. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 2 years from the date of each inventory.
18. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material".
19. Irradiation and distribution of foods for human consumption shall be in accordance with rules and regulations of the Food and Drug Administration, U.S. Department of Health and Human Services.
20. A. During the each three-month period, an individual listed in Condition 20.B. shall visit the facility at least once without prior notice to the staff or management and spend a total of eight hours observing operations, auditing compliance with Commission regulations and license conditions and inspecting the condition of equipment important to safe operation of the facility. A written report of the findings during each period shall be prepared and simultaneously submitted to the Board of Directors of Radiation Technology, Incorporated and the U.S. Nuclear Regulatory Commission, 475 Allendale Road, King of Prussia, Pennsylvania 19406 within five working days following the end of the audit. Within ten working days of the filing of each report the licensee shall provide the Commission, at the above address, and the Board of Directors of Radiation Technology, Incorporated, a written description of any corrective actions in response to the audit findings. Each audit shall include a review of any corrective actions for previous findings.

B. The audits described in 20.A. shall be performed by Michael Slobodien, James Nicolosi or Jerry McAlpin.
21. Except as specified in Condition 22, the licensee is authorized to modify the procedures included in Appendix B of application dated June 3, 1987 in accordance with the procedure described in Section 10.6 of that application.

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22. The licensee shall follow the written instructions contained in the procedures named in this condition. All changes to these procedures must be approved, prior to implementation, by the U. S. Nuclear Regulatory Commission. A copy of each of these procedures shall be made available to each individual using or having responsibility for the use of licensed material.
- a. Procedure 9.100 (REV C) "Irradiator Start-up" (included with letter dated May 1, 1989)
 - b. Procedure 9.102 (REV C) "Irradiator Interlock Testing" (included with letter dated December 12, 1988)
 - c. Procedure 12.100 (Original) "Preventative Maintenance System" (included with letter dated December 12, 1988)
23. This license does not authorize the transfer of licensed material to individuals generally licensed or exempt from licensing.
24. The licensee shall characterize and plan for the removal, packaging, and disposal, as appropriate, of all licensed material specified in Items 7.E., 7.F., 7.G., and 7.H., including onsite and offsite contaminated soil. These activities shall be completed in accordance with the following schedule:
- A. By December 23, 1988, the licensee shall submit to the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406 a survey report which characterizes the extent of all onsite and offsite radioactive contamination associated with the previous operations of the licensee and fully describes all radioactive materials authorized by Items 7.E., 7.F., 7.G., and 7.H. of this license, including all buried radioactive material.
 - B. The licensee shall notify U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406 immediately, when soil contamination is identified to exceed the following thresholds:
 - (i) 8 picocuries per gram, or
 - (ii) radiation levels one meter above the ground, due to soil contamination, exceed background radiation levels by greater than 10 microrems per hour.
 - C. The licensee shall notify U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406 immediately, when any object or artifact contaminated in excess of background radiation levels is uncovered or identified.

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CONDITIONS

- D. By March 23, 1989, the licensee shall submit to the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406 a plan and schedule for the removal, packaging, and disposal of all radioactive materials authorized by items 7.E., 7.F., 7.G., and 7.H., including all buried radioactive materials.
- 25. The licensee shall plan and complete the removal, packaging, and disposal of the licensed material specified in Item 7.A. which is stored in the R and D pool. These activities shall be completed in accordance with the following schedule:
 - A. By March 23, 1989, the licensee shall submit to the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406 a plan and schedule for the removal, packaging, and disposal of all the sealed sources stored in the R and D pool.
 - B. By December 23, 1989, the licensee shall remove all the sealed sources from the R&D pool and transfer them to a person authorized to receive such material.
- 26. 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 any enclosures, listed below. The 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.
 - A. Application dated June 3, 1987
 - B. Letter dated September 8, 1988
 - C. Letter dated December 12, 1988
 - D. Letter dated March 23, 1989
 - E. Letter dated May 1, 1989 (addressed to Mr. Jack Davis)

Date JUL 24 1989

For the U.S. Nuclear Regulatory Commission
 Original Signed By:
 Jack Davis
 By _____
 Nuclear Materials Safety Branch
 Region I
 King of Prussia, Pennsylvania 19406

JUL 24 1989

License No. 29-13613-02
Docket No. 030-07022
Control No. 110027

Process Technology of North Jersey
Subsidiary of RTI Inc.
ATTN: John Russen, Plant Manager
108 Lake Denmark Road
Rockaway, New Jersey 07866

Gentlemen:

Enclosed is the Corrected Copy of Amendment No. 26 for License No. 29-13613-02. In accordance with the letter from you on June 13, 1989, we have modified your license as you requested with the exception of your request to maintain leak test data in units of picocuries. While certainly not a significant matter, we prefer to adhere to the stated standard license condition for administrative purposes.

Thank you for your cooperation in bringing these changes to our attention.

Sincerely,

Original Signed By:
Jack Davis

Jack Davis
Nuclear Materials Safety Section C
Division of Radiation Safety
and Safeguards

Enclosures:
Corrected Copy for Amendment No. 26

DRSS:RI
Davis/pmb

7/19/89

DRSS:RI
White

7/24/89

OFFICIAL RECORD COPY

ML 29-13613-02/LTR - 0001.0.0
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ML 10

B/35