

FORM NRC-313 I (1-79) 10 CFR 30		U.S. NUCLEAR REGULATORY COMMISSION		1. APPLICATION FOR: <i>(Check and/or complete as appropriate)</i>	
<b>APPLICATION FOR BYPRODUCT MATERIAL LICENSE INDUSTRIAL</b>				<input checked="" type="checkbox"/>	a. NEW LICENSE
See attached instructions for details.  Completed applications are filed in duplicate with the Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety, and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555 or applications may be filed in person at the Commission's office at 1717 H Street, NW, Washington, D. C. or 7915 Eastern Avenue, Silver Spring, Maryland.				<input type="checkbox"/>	b. AMENDMENT TO: LICENSE NUMBER <div style="text-align: right; font-size: large;">30-17858</div>
				<input type="checkbox"/>	c. RENEWAL OF: LICENSE NUMBER <div style="text-align: right; font-size: large;">63-0399</div>
2. APPLICANT'S NAME <i>(Institution, firm, person, etc.)</i>  <div style="text-align: center; font-size: large;">Tighe &amp; Bond/SCI Laboratory</div> <div style="font-size: small;">TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION</div> <div style="text-align: center;">(413) 527-5600      533-3991</div>			3. NAME OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION  <div style="text-align: center; font-size: large;">John P. Lambert</div> <div style="font-size: small;">TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION</div> <div style="text-align: center;">(413) 527-5600      533-0399</div>		
4. APPLICANT'S MAILING ADDRESS <i>(Include Zip Code)</i>  <div style="text-align: center;">50 Payson Avenue Easthampton, Massachusetts 01027</div>			5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED <i>(Include Zip Code)</i>  <div style="text-align: center;">50 Payson Avenue Easthampton, Massachusetts 01027</div>		
(IF MORE SPACE IS NEEDED FOR ANY ITEM, USE ADDITIONAL PROPERLY KEYED PAGES.)					
6. INDIVIDUAL(S) WHO WILL USE OR DIRECTLY SUPERVISE THE USE OF LICENSED MATERIAL <i>(See Items 16 and 17 for required training and experience of each individual named below)</i>					
FULL NAME			TITLE		
a. Virginia Weisse			Laboratory Technician		
b. Robert Eaton			Laboratory Technician		
c.					
7. RADIATION PROTECTION OFFICER  <div style="text-align: center; font-size: large;">John P. Lambert</div>			Attach a resume of person's training and experience as outlined in Items 16 and 17 and describe his responsibilities under Item 15.		
8. LICENSED MATERIAL					
LINE NO.	ELEMENT AND MASS NUMBER	CHEMICAL AND/OR PHYSICAL FORM	NAME OF MANUFACTURER AND MODEL NUMBER <i>(If Sealed Source)</i>	MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTIVITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME	
(1)	Nickel 63	Sealed Source	New England Nuclear	15 Millicuries	
(2)			See attached sheet		
(3)	<div style="border: 1px solid black; padding: 5px; transform: rotate(-2deg);">           License Fee Information            on Reverse Side         </div>		for # 8C,		
(4)					
DESCRIBE USE OF LICENSED MATERIAL E					
(1) The sealed detector cell containing Nickel 63 foil shall be used in Perkin-Elmer					
(2) Model SIGMA 1 Gas Chromatograph with temperature protection circuitry					
(3) which cuts off at 450°					

8010160582

"OFFICIAL RECORD COPY"

05305

Applicant	19675
Check No.	19675
Amount	\$152.32
Date of	10/1/82
State Ch.	10/1/82
Receipt	10/1/82

*10/1/82*  
*10/1/82*  
*10/1/82*

RECEIVED BY LFNB	
Date	10/1/82
Let.	10/1/82
By	10/1/82
Orig. To	10/1/82
Action Compl.	10/1/82

9. STORAGE OF SEALED SOURCES						
LINE NO.	CONTAINER AND/OR DEVICE IN WHICH EACH SEALED SOURCE WILL BE STORED OR USED. A.	NAME OF MANUFACTURER B.	MODEL NUMBER C.			
(1)	Deposited on gold or platinum foil,	Perkin-Elmer	330-0119			
(2)	sealed in Detector Cell					
(3)						
(4)						

  

10. RADIATION DETECTION INSTRUMENTS						
LINE NO.	TYPE OF INSTRUMENT A.	MANUFACTURER'S NAME B.	MODEL NUMBER C.	NUMBER AVAILABLE D.	RADIATION DETECTED (alpha, beta, gamma, neutron) E.	SENSITIVITY RANGE (milliroentgens/hour or counts/minute) F.
(1)			NA			
(2)						
(3)						
(4)						

  

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10	
<input type="checkbox"/> a. CALIBRATED BY SERVICE COMPANY NAME, ADDRESS, AND FREQUENCY  NA	<input type="checkbox"/> b. CALIBRATED BY APPLICANT <i>Attach a separate sheet describing method, frequency and standards used for calibrating instruments.</i>

  

12. PERSONNEL MONITORING DEVICES		
TYPE (Check and/or complete as appropriate.) A.	SUPPLIER (Service Company) B.	EXCHANGE FREQUENCY C.
<input type="checkbox"/> (1) FILM BADGE  <input type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD)  <input type="checkbox"/> (3) OTHER (Specify): _____ _____	NA	<input type="checkbox"/> MONTHLY  <input type="checkbox"/> QUARTERLY  <input type="checkbox"/> OTHER (Specify): _____ _____

  

13. FACILITIES AND EQUIPMENT (Check where appropriate and attach annotated sketch(es) and description(s).)	
<input checked="" type="checkbox"/> a. LABORATORY FACILITIES, PLANT FACILITIES, FUME HOODS (Include filtration, if any), ETC. <input type="checkbox"/> b. STORAGE FACILITIES, CONTAINERS, SPECIAL SHIELDING (fixed and/or temporary), ETC. <input type="checkbox"/> c. REMOTE HANDLING TOOLS OR EQUIPMENT, ETC. <input type="checkbox"/> d. RESPIRATORY PROTECTIVE EQUIPMENT, ETC.	

  

14. WASTE DISPOSAL	
a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED Nuclear Radiation Development Corp., 2937 Alt Blvd., Grand Island, N. Y. 14070	
b. IF COMMERCIAL WASTE DISPOSAL SERVICE IS NOT EMPLOYED, SUBMIT A DETAILED DESCRIPTION OF METHODS WHICH WILL BE USED FOR DISPOSING OF RADIOACTIVE WASTES AND ESTIMATES OF THE TYPE AND AMOUNT OF ACTIVITY INVOLVED. IF THE APPLICATION IS FOR SEALED SOURCES AND DEVICES AND THEY WILL BE RETURNED TO THE MANUFACTURER, SO STATE	

#8 C

Foil Manufactured by:

New England Nuclear Corporation  
575 Albany  
Boston, Mass.  
Foil Model NER-002

or

Nuclear Radiation Development Corp.  
2937 Alt Blvd.  
Grand Island, New York 14070  
Foil Model N1001

or

Amersham/Searle Corp.  
2637 S. Clearbrook Dr.  
Arling Heights, Illinois  
Foil Model N.B.C. 7020

15. RADIATION PROTECTION PROGRAM:

Detailed instructions for installing, operating and wipe testing detector cells are contained in the instruction manual supplied with the Model SIGMA 1, 2, 3, and 4 Gas Chromatographs.

Wipe tests for radioactivity are required at 6 month intervals. Instructions for conducting the wipe test are included in the manual and in the wipe test kit ( P-E Part No. 009-1667) shipped with the detector cell. The wipe test is to be submitted to one of the following for a radiation survey.

16 and 17.

Robert M. Eaton, Laboratory Technician

As Environmental Sciences, Holyoke Community College  
Strong chemistry background:

Inorganic chemistry - 8 hours - nuclear chemistry included

Organic chemistry - 8 hours

Environmental chemistry - 8 hours

Environmental pollution 4 hrs - included nuclear principles.

Mr. Eaton also has formal education and use of the Gas Chromatograph to be purchased; he will also attend the Perkin-Elmer 3 day training program.

Virginia M. Weisse, Laboratory Technician

B.S. Public Health, University of Massachusetts

Mrs. Weisse via her degree requirement has a great deal of experience with nuclear medicine and radiation or a public health problem; she will attend the Perkin-Elmer 3 day training program.

John P. Lambert, Laboratory Director

B.S. Biology

Springfield College

M. Ed. Biology

Springfield College

Mr. Lambert has a strong biological background which included several courses dealing with radiation both as a biological tool and as a public health factor. Prior to his employment at Tighe & Bond/SCI, Mr. Lambert was Associate Professor of Environmental Sciences at Berkshire Community College (Pittsfield, Ma.). He will attend the Perkin-Elmer 3 day training program.

# INFORMATION REQUIRED FOR ITEMS 15, 16 AND 17

Describe in detail the information required for Items 15, 16 and 17. Begin each item on a separate page and key to the application as follows:

15. RADIATION PROTECTION PROGRAM. Describe the radiation protection program as appropriate for the material to be used including the duties and responsibilities of the Radiation Protection Officer, control measures, bioassay procedures (if needed), day-to-day general safety instruction to be followed, etc. If the application is for sealed source's also submit leak testing procedures, or if leak testing will be performed using a leak test kit, specify manufacturer and model number of the leak test kit.
16. FORMAL TRAINING IN RADIATION SAFETY. Attach a resume for each individual named in Items 6 and 7. Describe individual's formal training in the following areas where applicable. Include the name of person or institution providing the training, duration of training, when training was received, etc.
  - a. Principles and practices of radiation protection.
  - b. Radioactivity measurement standardization and monitoring techniques and instruments.
  - c. Mathematics and calculations basic to the use and measurement of radioactivity.
  - d. Biological effects of radiation.
17. EXPERIENCE. Attach a resume for each individual named in Items 6 and 7. Describe individual's work experience with radiation, including where experience was obtained. Work experience or on-the-job training should be commensurate with the proposed use. Include list of radioisotopes and maximum activity of each used.

SEE ATTACHED SHEET FOR 15, 16, and 17.

## 18. CERTIFICATE

(This item must be completed by applicant)

The applicant and any official executing this certificate on behalf of the applicant named in Item 2, certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Part 30, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

WARNING.—18 U.S.C., Section 1001; Act of June 25, 1948; 62 Stat. 749; makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

a. LICENSE FEE REQUIRED  
(See Section 170.31, 10 CFR 170)

\$110.00

(1) LICENSE FEE CATEGORY:

3L

(2) LICENSE FEE ENCLOSED: \$ 110.00

b. CERTIFYING OFFICIAL (Signature)

c. NAME (Type or print)

d. TITLE

e. DATE

*John P. Lambert*

John P. LAMBERT

Lab Director

9-23-80

Solids Lab  
14' x 9'

Atomic Absorption  
Spectrophotometer

Atomic Absorption  
Spectrophotometer

12' x 13'

Gas \*  
Chromatograph

Arch

General Lab area

32' x 42'

Lab workshop

15' x 32'

Lab  
Entrance

Hall

12'

Lab is located in basement area of  
Tighe and Bond/SCI building 50 Payson Ave  
Easthampton, MA 01027