

APPLICATION FOR BYPRODUCT MATERIAL LICENSE  
INDUSTRIAL

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.

a. NEW LICENSE

b. AMENDMENT TO:  
LICENSE NUMBER  
X 34-13845-01

c. RENEWAL OF:  
LICENSE NUMBER

2. APPLICANT'S NAME (Institution, firm, person, etc.)  
  
Bicron Corporation  
  
TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION  
(216) 564-2251

3. NAME OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION  
  
R.R. Dayton  
  
TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION  
(216) 564-2251

4. APPLICANT'S MAILING ADDRESS (Include Zip Code)  
  
12345 Kinsman Road  
Newbury, Ohio 44065

5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED (Include Zip Code)  
  
12345 Kinsman Road  
Newbury, Ohio 44065

(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  
(See Items 16 and 17 for required training and experience of each individual named below)

FULL NAME	TITLE
a. R.R. Dayton	Director Product Research
b. W.P. Novak/C.R. Hurlbut	Quality Assurance Director/Manager-Organics
c. J.G. Johnston/J.H. Nedorost	Manager/Assistant Manager-Electronics

7. RADIATION PROTECTION OFFICER  
  
R.R. Dayton  
  
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 (If Sealed Source)	MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTIVITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME
NC.	A	B	C	D
(1)	241 95 Am	Am-Be Sealed source	AME, PEI	One sealed source less than 400 millicuries
(2)			X2 capsule	
(3)			(Amersham)	
(4)				

037086 #22

Applicant Log: Dec-18-III  
Check No. 036453

DESCRIBE USE OF LICENSED MATERIAL  
E

(1) See Attachment Number 1

(2) 8504220309 B50401  
REQ3-LIC30  
34-13845-01 PDR

(3)

(4)

Amount/Fee Category \$40<sup>+</sup>-3P  
Type of Fee AMD  
Date Check Rec'd 12/26/84  
Received By [Signature]

CONTROL NO. 17964

**9. STORAGE OF SEALED SOURCES**

LINE NO.	A. CONTAINER AND/OR DEVICE IN WHICH EACH SEALED SOURCE WILL BE STORED OR USED.	B. NAME OF MANUFACTURER	MODEL NUMBER
(1)	Sources are stored in a 2" thick	Bicron Corporation	N/A
(2)	lead cabinet except when being used		
(3)	for detector test or calibration.		
(4)			

**10. RADIATION DETECTION INSTRUMENTS**

LINE NO.	A. TYPE OF INSTRUMENT	B. MANUFACTURER'S NAME	C. MODEL NUMBER	D. NUMBER AVAILABLE	E. RADIATION DETECTED (alpha, beta, gamma, neutron)	F. SENSITIVITY RANGE (milliroentgens/hour or counts/minute)
(1)	M.C.A.	Bicron test System	N/A	N/A	Alpha/Gamma	< .005 MR/HR.
(2)						
(3)						
(4)						

**11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10**

a. CALIBRATED BY SERVICE COMPANY  
NAME, ADDRESS, AND FREQUENCY

b. CALIBRATED BY APPLICANT  
Attach a separate sheet describing method, frequency and standards used for calibrating instruments.

Test and calibration daily.

**12. PERSONNEL MONITORING DEVICES**

A. TYPE (Check and/or complete as appropriate.)	B. SUPPLIER (Service Company)	C. EXCHANGE FREQUENCY
<input type="checkbox"/> (1) FILM BADGE <input checked="" type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD) <input type="checkbox"/> (3) OTHER (Specify): _____ <p align="center">N/A</p>	R.S. Landauer, Jr. & Co.	<input checked="" 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).)

- a. LABORATORY FACILITIES, PLANT FACILITIES, FUME HOODS (Include filtration, if any), ETC.
  - b. STORAGE FACILITIES, CONTAINERS, SPECIAL SHIELDING (fixed and/or temporary), ETC.
  - c. REMOTE HANDLING TOOLS OR EQUIPMENT, ETC.
  - d. RESPIRATORY PROTECTIVE EQUIPMENT, ETC.
- N/A

**14. WASTE DISPOSAL**

a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED

N/A

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.

Decayed or weak sources will be sent to a company such as Chem Nuclear Services in a manner recommended by them.

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:

\*As previously submitted.

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.

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)	\$ 40.00	b. CERTIFYING OFFICIAL (Signature) <i>R.R. Dayton</i>
(1) LICENSE FEE CATEGORY:	3L	c. NAME (Type or print) R.R. Dayton
(2) LICENSE FEE ENCLOSED: \$	\$ 40.00	d. TITLE Director of Product Research
		e. DATE December 5, 1984