

NRC Form 313 I (12-81) 10 CFR 30	U.S. NUCLEAR REGULATORY COMMISSION		1. APPLICATION FOR: (Check and/or complete as appropriate)
	APPLICATION FOR BYPRODUCT MATERIAL LICENSE INDUSTRIAL		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.

b. AMENDMENT TO:
 LICENSE NUMBER

c. RENEWAL OF:
 LICENSE NUMBER

X 18-11279-01

2. APPLICANT'S NAME (Institution, firm, person, etc.)

CYRO Industries

TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION

(207) 324-6000 Ext. 216

3. NAME AND TITLE OF PERSON TO BE CONTACTED
 REGARDING THIS APPLICATION

William H. Bagley

TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION

(207) 324-6000 Ext. 216

4. APPLICANT'S MAILING ADDRESS (Include Zip Code)
 (Address to which NRC correspondence, notices, bulletins, etc., should be sent.)

P.O. Box 591

Sanford, Maine 04073

5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED
 (Include Zip Code)

P.O. Box 591

Sanford, Maine 04073

(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.	Arthur W. Bazemore	Maintenance Supervisor
b.	Alfred H. Hodson	Mgr. of Operations
c.	Roy C. Gordon	Process Engineer

7. RADIATION PROTECTION OFFICER

William H. Bagley

Attach a resume of person's training and experience as outlined in Items 16 and 17 and describe his responsibilities under Item 15.

Manager of Safety & Loss Prevention

8. LICENSED MATERIAL

L I N E NO.	ELEMENT AND MASS NUMBER	CHEMICAL AND/OR PHYSICAL FORM	NAME OF MANUFACTURER AND MODEL NUMBER (If Sealed Source)	MAXIMUM NUMBER OF MILLCURIES AND/OR SEALED SOURCES AND MAXIMUM ACTI- VITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME
	A	B	C	D
(1)	Americium 241	Sealed Sources	Ohmart Model A-5799	3 sources of 1000 Millicuries Each
(2)	Americium 241	Sealed Sources	Ohmart Model A-5799	3 sources of 1000 Millicuries Each
(3)	8801280472 870827 REG1 LIC30			
(4)	18-11279-01	PDR		

DESCRIBE USE OF LICENSED MATERIAL
 E

(1) For use in (2) Ohmart Model BGOM guages for thickness measurement

(2)

(3)

(4)

"OFFICIAL RECORD COPY"

ML18

11497

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)	Source housing - 3 total	Ohmart	A-5799-BGOM
(2)	Source housing - 3 total	Ohmart	A-5799-BGOM
(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)	Geiger Counter	Anton Elec. Labs	CO V-700 No. 6B	1	BETA/Gamma	.01-.05 MR x 1-x10-x100
(2)						
(3)						
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

☒ a. CALIBRATED BY SERVICE COMPANYNAME, ADDRESS, AND FREQUENCY
Nuclear Instrument Co.

P.O. Box 178

Rockland, Ma. 02370

4/6/79

☐ b. CALIBRATED BY APPLICANT

Attach a separate sheet describing method, frequency and standards used for calibrating instruments.

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	Ohmart	<input type="checkbox"/> MONTHLY
<input type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD)		<input checked="" type="checkbox"/> QUARTERLY
<input checked="" type="checkbox"/> (3) OTHER (Specify): <u>Wipe</u>		<input type="checkbox"/> OTHER (Specify):
<u>Test</u>		

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.

14. WASTE DISPOSAL

a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED

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.

Sealed Sources will be sent to manufacturer for disposal - Ohmart Corp.

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.

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)

b. CERTIFYING OFFICIAL (Signature)

c. NAME (Type or print)

William H. Bagley

(1) LICENSE FEE CATEGORY:

d. TITLE

Manager of Safety & Loss Prevention

(2) LICENSE FEE ENCLOSED: \$

e. DATE

RESUME's

William H. Bagley

Mr. Bagley has recieved training at Louisiana State University in Nuclear Science, June 1972, has been trained in-house by Ohmart Corp., March 1982, on Radiation Safety, and has had on-the-job training with in-house certified personnel.

Arthur W. Bazemore

Mr. Bazemore completed, in March of 1979, the "Radiation and Technical School" offered by the Ohmart Corp., and conducted at this plant.

Alfred H. Hodson

Mr. hodson was employed by the M&C Nuclear (Div.), at Attleboro, Massachusetts, from 1958 to 1962; has been trained in Nuclear safety while employed as an engineer at that company.

Roy C. Gordon

Mr. Gordon is, by training, a Nuclear Engineer. He attended the School of Nuclear Service and Engineering, Argonne National Lab, University of Chicago, Lamont, Illinois. He completed his training in 1955.

Radiation Protection Program, Item 15

- A. Control Measures - source holders will be shipped and installed on gage in "closed" position. Placed in "open" position after gage is placed in operation. If any source holder is removed from gage, it will be placed in "closed" position before removal. Any electrician required to perform any maintenance on the source holder or electronics has been trained and certified by Ohmart.
- B. Initial radiation survey was made by the Ohmart field engineer at the time of installation of gage. A copy of the radiation survey will be kept on file for future reference.
- C. If maintenance or repair of the source holder is required, it will be returned to the Ohmart Corp., in the "closed" position. The Ohmart Corp. will be contacted for detailed shipping instructions.

The Ohmart Corp., the local Public Health Agency, the regional office of the NRC, or other qualified agency will be contacted immediately in the event of an emergency involving the source holder. (Such an emergency might be a fire or explosion involving the source holder, or damage to the source holder which would prevent placing it in the "closed" position). In the event of an emergency, the area in the vicinity of the source holder will be barricaded until inspected by a qualified person.

- D. Leak Test Procedure - a test will be performed on the surface of the source holder every three months by William H. Bagley, Safety Manager, to assure there has been no leakage of radioactive material from the source containers in the source holders. The leak test materials will be supplied and analyzed by the Ohmart Corp. The Ohmart Corp. standard "Leak Test Procedure for Sealed Beta Radiation Sources (8-62)" will be followed in using kit #525.