

APPLICATION FOR BYPRODUCT MATERIAL LICENSE
INDUSTRIAL

1. APPLICATION FOR:
(Check and/or complete as appropriate)

4/30/79 EX
3L

a. NEW LICENSE

b. AMENDMENT TO:
LICENSE NUMBER

c. RENEWAL OF:
LICENSE NUMBER
21-16026-01

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.

2. APPLICANT'S NAME (Institution, firm, person, etc.)
Wayne County Board of Public Works

TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION
1-313-282-2880

3. NAME OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION (1) Fred Lush, Supervisor
(2) Otis Walker, User

TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION
1-313-282-2880

4. APPLICANT'S MAILING ADDRESS (Include Zip Code)

797 Central Avenue
Wyandotte, Michigan 48192

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

797 Central Avenue
Wyandotte, Michigan 48192

(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.	Otis L. Walker	Chemist
b.	Walter Syrkowski	Chemist
c.		

7. RADIATION PROTECTION OFFICER

Fred Lush

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

L I N E NO.	ELEMENT AND MASS NUMBER A	CHEMICAL AND/OR PHYSICAL FORM B	NAME OF MANUFACTURER AND MODEL NUMBER (If Sealed Source) C	MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTI- VITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME D
(1)	Nickel 63	Sealed Source foil contained in detector cell	Perkin-Elmer Model 009-0282	15 Millicuries
(2)	"	"	"	"
(3)				
(4)				

DESCRIBE USE OF LICENSED MATERIAL
E

(1) To be used in a Perkin-Elmer gas chromatograph for sample analysis. Sample
(2) analyses may include determination of pesticides, herbicides, etc.

RECEIVED BY LFMB
APR 13 1979
Date
Log. *Cyber 8 III*
By *Brown*
To
on Compl. 4/13/79

FORM NRC-313 I (6-78)

8506100378 850529
REG3 LIC30
21-16026-02 PDR

FEE EXEMPT
170.11(a)(9)

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)	Gas Chromatograph Detector	Perkin-Elmer	900
(2)			
(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)	N/A	N/A	N/A	N/A	N/A	N/A
(2)						
(3)						
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

<input type="checkbox"/> a. CALIBRATED BY SERVICE COMPANY NAME, ADDRESS, AND FREQUENCY N/A	<input type="checkbox"/> b. CALIBRATED BY APPLICANT Attach a separate sheet describing method, frequency and standards used for calibrating instruments. N/A
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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 checked="" type="checkbox"/> (3) OTHER (Specify): <u>Wipe Test only</u> 		<input type="checkbox"/> MONTHLY <input type="checkbox"/> QUARTERLY <input checked="" type="checkbox"/> OTHER (Specify): <u>Every six months</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.

Application is for sealed source

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:

- /SEE ATTACHED
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. /SEE ATTACHED 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.
- SEE ATTACHED
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.

<p>a. LICENSE FEE REQUIRED (See Section 170.31, 10 CFR 170)</p> <p>N/A Governmental Agency</p>	<p>b. CERTIFYING OFFICIAL (Signature) <i>[Signature]</i></p>
<p>(1) LICENSE FEE CATEGORY:</p>	<p>c. NAME (Type or print) FREDERICK LUSHALL</p>
<p>(2) LICENSE FEE ENCLOSED: \$</p>	<p>d. TITLE DIRECTOR OF LABORATORY SERVICES</p> <p>e. DATE APRIL 4, 1979</p>

15. RADIATION PROTECTION PROGRAM

The radiation protection program for our nickel 63, that is, in our gas chromatograph generally concurs with the rules and regulations of the nuclear regulatory commission as we know them. The leak test procedures consist of removing the electron capture detector with a special wrench. The test consists of dissolving a powder in ten milliliters of water and using separate circular wipe papers and swab tips, for wiping and drying the joints near the caps of the detector housing checking for possible leaks. The swabs and circular papers are sent to Nuclear Sources and Services, P. O. Box 14023, Houston, Texas. A fee is charged and after each wipe test a request is made for a new wipe test kit. The duties and responsibilities of the radiation protection officer, Fred Lush and are as follows: Implementing the radiation safety program, availability to the users of appropriate materials in cases of difficulty. To be available for special training in radiation protection and practices in use and handling of radioactive materials.

16 & 17 FORMAL TRAINING IN RADIATION SAFETY AND EXPERIENCE

Two graduate chemists attended the three-day gas chromatograph training course in Norwalk, Connecticut in December, 1976. Three detectors were discussed including the nickel 63 containing detector. This training was given by the Perkin-Elmer Corporation. The wipe test was discussed slightly, but most of it was learned from experience.

- (a) There were no in-depth discussion of principles and practices of radiation. It would be helpful if you sent some information to us regarding this.
- (b) We use only the wipe test for radiation monitoring.
- (c) It would be helpful to send us this information also.
- (d) It would be helpful for information on this item also.

The two chemists who attended this course were Otis Walker and Walter Syrkowski. Otis Walker is the only one so far, using the instrument. Any information asked for above could be sent in care of him.