

Form AEC-313 8-64 10 CFR 30	UNITED STATES ATOMIC ENERGY COMMISSION <h2 style="margin: 0;">APPLICATION FOR BYPRODUCT MATERIAL LICENSE</h2>	Form approved Budget Bureau No. 38-R027
<p>INSTRUCTIONS. — Complete Items 1 through 16 if this is an initial application or an application for renewal of a license. Information contained in previous applications filed with the Commission with respect to Items 8 through 15 may be incorporated by reference provided references are clear and specific. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail two copies to: U.S. Atomic Energy Commission, Washington, D.C., 20545, Attention: Isotopes Branch, Division of Materials Licensing. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. An AEC Byproduct Material License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 30, and the Licensee is subject to Title 10, Code of Federal Regulations, Part 20.</p>		
1. (a) NAME AND STREET ADDRESS OF APPLICANT (Institution, firm, hospital person, etc. Include ZIP Code.)		(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED (If different from 1 (a) Include ZIP Code.)
Thompson-Stearns-Roger Corp. P. O. Box 610 St. Charles, Missouri 63301		Weldon Spring Chemical Plant Weldon Spring, Missouri
2. DEPARTMENT TO USE BYPRODUCT MATERIAL		3. PREVIOUS LICENSE NUMBER(S) (If this is an application for renewal of a license, please indicate and give number.)
Laboratory		
4. INDIVIDUAL USER(S) (Name and title of individual(s) who will use or directly supervise use of byproduct material. Give training and experience in Items 8 and 9.)		5. RADIATION PROTECTION OFFICER (Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and experience as in Items 8 and 9.)
Louis C. Culpepper, Jr. - Plant Chemist Earl W. Murphy- Instrumentation		
6. (a) BYPRODUCT MATERIAL (Elements and mass number of each)	(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME (If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source.)	
250 mc. H ³	1 source Chromatographic Source for Electron Capture Detector Varian Aerograph or formerly Wilkens Inst. & Research, Inc. Serial 106 Model EC	
7. DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. (If byproduct material is for "human use," supplement A (Form AEC-313a) must be completed in lieu of this item. If byproduct material is in the form of a sealed source, include the make and model number of the storage container and/or device in which the source will be stored and/or used.)		
Gas Chromatography Detection Detector Model - 02-104 Instrument Model - Group I		

04372
A134

TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEM 4 (Use supplemental sheets if necessary)

8 TYPE OF TRAINING	Culpepper - WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
a. Principles and practices of radiation protection	University of Florida	1½ yrs.	Yes No	Yes No
b. Radioactivity measurement standardization and monitoring techniques and instruments	University of Florida	1½ yrs.	Yes No	Yes No
c. Mathematics and calculations basic to the use and measurement of radioactivity	University of Florida	1½ yrs.	Yes No	Yes No
d. Biological effects of radiation			Yes No	Yes No

9 EXPERIENCE WITH RADIATION (Actual use of radioisotopes or equivalent experience)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
H ³	250 mc	University of Florida	1½ yrs.	Gas Chromatography

10. RADIATION DETECTION INSTRUMENTS (Use supplemental sheets if necessary)

TYPE OF INSTRUMENTS (Include make and model number of each)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm ²)	USE (Monitoring, surveying, measuring)

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE.

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED. (For film badges, specify method of calibrating and processing, or name of supplier.)

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS IN DUPLICATE

13. FACILITIES AND EQUIPMENT. Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. Explanatory sketch of facility is attached. (Circle answer) Yes (No) **Fume Hoods available in chemical laboratory**
14. RADIATION PROTECTION PROGRAM. Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable, name, training, and experience of person to perform leak tests, and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source.
15. WASTE DISPOSAL. If a commercial waste disposal service is employed, specify name of company. Otherwise, submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity involved.

CERTIFICATE (This item must be completed by applicant)

16. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE APPLICANT NAMED IN ITEM 1, 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.

Date July 29, 1968

Thompson - Stearns - Roger

Applicant named in item 1

Louis C. Culpepper

Plant Chemist

Title of certifying official

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.

TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEM 4 (Use supplemental sheets if necessary)					
8. TYPE OF TRAINING		Murphy - WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
a. Principles and practices of radiation protection		Arco, Idaho N.R.T.S. Rocky Flats, Colo.	1957-1960 1960	(Yes) No	Yes (No)
b. Radioactivity measurement standardization and monitoring techniques and instruments		Arco, Idaho N.R.T.S. Rocky Flats, Colo.	1957-1960 1960	(Yes) No	Yes (No)
c. Mathematics and calculations basic to the use and measurement of radioactivity				(Yes) No	Yes (No)
d. Biological effects of radiation		Arco, Idaho N.R.T.S. Rocky Flats, Colo.	1957-1960 1960	Yes No	Yes No
9. EXPERIENCE WITH RADIATION. (Actual use of radioisotopes or equivalent experience.)					
ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE	
? CO ⁶⁰	? 500 mc	National Reactor Testing Station Arco, Idaho	3½ yrs.	Test Reactors	
?	?	Colorado, Oilshale Corp. Colorado, Rocky Flats	1½ yrs. 4 mos.	Level Controls Nuclear Weapons	

04372

14. Effluent of EC cell will be vented from lab to prevent any possible contamination of the laboratory.
15. If the source should at any time, need replacing, the old foil will be forwarded to the AEC or to Varian Aerograph.

04372