

Form AEC-318
(9-55)ATOMIC ENERGY COMMISSION
APPLICATION FOR BYPRODUCT MATERIAL LICENSEForm approved,
Budget Bureau No. 38-R027.3.

INSTRUCTIONS: Complete Items 1 through 19 if this is a new application. If renewal is requested, complete only Items 1 through 11 provided that with respect to the other items there has been no change in the information previously submitted. Mail two copies to: U. S. Atomic Energy Commission, P. O. Box E, Oak Ridge, Tennessee, Attention: Isotopes Extension, Division of Civilian Application. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. General requirements for issuance of an AEC Byproduct Material License are contained in Title 10, Code of Federal Regulations, Part 30.

1. (a) NAME AND SHIPPING ADDRESS OF APPLICANT (Institution, firm, hospital, person, etc.)	(b) ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED (If different from shipping address)
Clevite Research Center, Division of Clevite Corporation 540 East 105th Street Cleveland 8, Ohio	
2. DEPARTMENT TO USE BYPRODUCT MATERIAL Electrophysical Research	
3. INDIVIDUAL USER (Name and title of individual(s) who will use or directly supervise use of byproduct material) Helmut Krueger	
4. RADIOLOGICAL SAFETY OFFICER (Name of person qualified in radiological safety, if other than individual user) Dr. Richard L. Taylor, M. D.	
5. PREVIOUS LICENSE OR AUTHORIZATION NUMBER (If this is an application for renewal of a license for byproduct material obtained under a prior license or authorization for radiological procedure) Nos. 7594, 13167, 39155 (Last one in name of H. Krueger, 2-1-56, is closely related to present application)	

BYPRODUCT MATERIAL OR IRRADIATION SERVICE DESIRED

6. BYPRODUCT MATERIAL (Element and mass number) Service radiation of materials listed under 7	7. CHEMICAL AND/OR PHYSICAL FORM (Or catalog number) Crystalline compounds, $NH_4H_2PO_4, NaKC_4H_4O_6 \cdot 4H_2O, NaClO_3$	8. MAXIMUM AMOUNT OF RADIOACTIVITY IN MILLICURIES THAT YOU WILL POSSESS AT ANY ONE TIME P32-67mc K42-430 mc Na24-14mc Cl36-0.001mc (mc = millicurie)
9. IF IRRADIATION SERVICE IS DESIRED, STATE PERTINENT DETAILS SUCH AS: CHEMICAL COMPOSITION AND WEIGHT IN GRAMS OF TARGET MATERIAL, RADIOACTIVITY, IRRADIATION TIME IN DAYS, AND NEUTRON FLUX Service irradiation producing not more than totals listed under 8, as arranged with supplier, Health Physics Branch, ORNL, Oak Ridge, Tenn., (Dr. Yockey).		

STATEMENT OF USE

10. (a) DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. (If material is for "human use" complete Supplement A in lieu of this item. If material is to be used in or manufactured as a "sealed source" complete Supplement B in addition to this item.)

To measure frequencies and piezoelectric constants on Subcontract No. 797, under W-7405 eng. 26.

(b) DESCRIBE PROCEDURES WHICH WILL BE OBSERVED TO MINIMIZE HAZARD FROM HANDLING, STORAGE, AND DISPOSAL OF THE BYPRODUCT MATERIAL

Beta Survey Meter available for monitoring. Storage vault available to hold materials until "cool" enough to use in laboratory. Lead bricks available for temporary shielding.

9402280420 580909
PDR ADDCK 04000645
C PDR

CERTIFICATE

11. 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 do solemnly swear (or affirm) that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

State of Ohio

County of Cuyahoga

Subscribed and sworn to before me this 6
day of June 1956

Notary Public Carolyn Ward, Notary Public

My Commission Expires May 19, 1958

Clevite Research Center
Applicant named in Item 1

By

Eldred A. Gentry Jr.
Personnel Manager

Date

June 6, 1956

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.

INSTRUCTIONS: Complete Items 12 through 19 if this is a new application. This information may be omitted from subsequent applications provided there is no change in the information previously submitted, and reference is made in Item 5 to the application on which this information appears.

TRAINING AND EXPERIENCE WITH RADIOACTIVITY OF INDIVIDUAL USER NAMED IN ITEM 3

12. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB <i>(Circle answer)</i>		FORMAL COURSE <i>(Circle answer)</i>	
			Yes	No	Yes	No
1. Principles and practices of radiological health safety.						
2. Radioactivity measurement standardization and monitoring techniques and instruments						
3. Mathematics and calculations basic to the use and measurement of radioactivity.						
4. Biological effects of radiation.						
5. Actual use of radioisotopes in the types and quantities for which application is being made, or equivalent experience						

13. ISOTOPE HANDLING EXPERIENCE				
ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE

14. If Radiological Safety Officer named in Item 4 is different from individual user named in Item 3, use supplementary sheet to provide equivalent information on "Training and Experience With Radioactivity of Radiological Safety Officer." Supplementary sheet is attached *(Circle answer)*
 Yes No

PHYSICAL FACILITIES, EQUIPMENT, AND RADIATION INSTRUMENTATION

15. RADIATION DETECTION INSTRUMENTS <i>(Use separate sheet if necessary)</i>					
TYPE OF INSTRUMENTS <i>(Include make and model number of each)</i>	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE <i>(mr/hr)</i>	WINDOW THICKNESS <i>(mg/cm²)</i>	USE <i>(Monitoring, surveying, measuring)</i>

16. FILM BADGES, DOSIMETERS, AND OTHER PERSONNEL MONITORING DEVICES INCLUDING BIO-ASSAY PROCEDURES

17. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE *(For film badges specify method of calibration and processing, or name supplier)*

18. (a) DESCRIBE BRIEFLY REMOTE HANDLING EQUIPMENT, STORAGE CONTAINERS, SHIELDING, AND LABORATORY FACILITIES *(Working areas, fume hoods, etc.)*

(b) SKETCHES OF SUCH FACILITIES ARE ATTACHED *(Circle answer)* Yes No

19. DESCRIBE BRIEFLY RADIATION SURVEYING PROCEDURES AND METHODS OF DISPOSING OF RADIOACTIVE WASTES

RETIREMENT RECORD

DATE: 8-10-57

FILE IN:
LICENSE NO: 34-653-1

LICENSEE: Glaxo Research Corporation

INSTITUTION: _____

ADDRESS: _____

CITY: Cleveland STATE: Ohio

AUTHORIZATION FOLDERS RETIRED:

3975

3265

RETIREMENT RECORD

DATE: _____

FILE IN:
LICENSE NO: _____

LICENSEE: Levite Research Center

INSTITUTION: _____

ADDRESS: _____

CITY: Cleveland STATE: Ohio

AUTHORIZATION FOLDERS RETIRED:

16287 ✓

(This area contains horizontal lines for recording data.)

1095

JUN 8 1958

Date Received

No. Copies

Application No. 34-653-1

Company Confidential

Expiration Date *June 30, 1958*

Reference No.

Isotope

Form

Possession Limit

Use:

To measure post irradiation effects on frequencies and piezoelectric constants on subcontract No. 797, under W-7405 eng. 26.

Service irradiation of Crystalline Compounds

1. 67 mc

2. 14 mc

3. 430 mc

4. ~~67 mc~~ 1/4 cc

*VP-32
2 Na-24
3 K-42
4 Cl-36*

Service Irradiation

SUPERSEDED
By License Number

34-653-3 (FCO)

Call

APPROVED
JUN 1 8 1958

Special Conditions: (Circle)

- 1. A B 10. A B C
- 2. 11.
- 3. 12.
- 4. 13.
- 5. A B C 14.
- 6. 15.
- 7. 16.
- 8. 17. A B
- 9. See reverse side

Comments:

see 39155

Letters:

New Application *up under new reg.*

Yes

No

SCHA Review

Yes

No

Quimby

313-A Reviewed

Yes

No

Items Reproduced:

Jacobson

313-B Reviewed

Yes

No

Robbins

Preceptor Statement

Yes

No

Reviewer Date

Action

Date

Chief

Instrumentation Checked

Yes

No

J.N.M. 6-18-56

J.N.M.
Approve

6-18-56

J.N.M.
J.N.M.

Telephone Call

Yes

No

Disapprove

RSB Files Checked

Yes

No

Cancelled

RSB Review

Yes

No

Revised

To Mr. Lortain apt 6423 apt 48

Phone Call to: Mr. Carl C. Sartain, Building 2001 X-10, ORNL Phone 6423 Ext. 48.
(JNM)
6-18-56

RE: Control No. 1095 (Lic. No. 34-653-1) to the Clevite Research Center, Cleveland, Ohio. Mr. S. had previously called Ruth Carey on a couple of occasions and she had furnished him with copies of 313 which he had forwarded on to Clevite Res. Center after calculating the reduced amount of activity which would be derived from a service irradiation of crystalline compounds. This work is to be performed on a contract with his office Dr. Yockey of the Health Physics Branch. Mr. S. will call Gillette and inform him the Lic. No. in order that activity may be shipped to Clevite Research Center. He requested that I forward him information concerning our new licensing procedures and involved regulations. Promised to send him info. that was sent to all users concerning the 2-10 change over.