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# CARBIDE AND CARBON CHEMICALS COMPANY

A DIVISION OF  
UNION CARBIDE AND CARBON CORPORATION

UCC

P.O. Box 8004

SOUTH CHARLESTON 3, W. VA.

August 22, 1956

7750  
#15  
*[Signature]*

✓ no answer required  
file

47-260-2

By-Products Branch  
Isotopes Division  
Atomic Energy Commission  
Oak Ridge, Tennessee

Attention: Lester R. Roger  
Reference: IEB:JNM (1612)

Gentlemen:

Please find attached Form AEC-313b, in duplicate, which we neglected to forward to you with our recent application for the purchase of Cesium 137 source holder.

Very truly yours,

*G. S. Givens*

Works Purchasing Department

G. S. Givens/gh  
Encl. *OKmt2*

*see our ltr to him of 8-8-56 R.F. # 222*

E-2

9 N.M. (1612)

Form AEC-313b  
(9-55)

**APPLICATION FOR BYPRODUCT MATERIAL LICENSE**  
**SUPPLEMENT B—SEALED SOURCES**

Form approved \_\_\_\_\_  
Budget Bureau No. 38-R028.3

If application is for byproduct material to be used in or manufactured as a "sealed source" complete this supplement and attach to the application for byproduct material license. Applicant for use of sealed source should complete Section I. An applicant desiring to manufacture a sealed source should complete Section II. If information has been submitted previously and there are no changes in the sealed source and/or device design or other changes in information submitted previously, details requested below may be omitted provided reference is made on line below to the application or other document on which this information appears.

**SECTION I—USE (See instructions)**

**1. IF SEALED SOURCE OR DEVICE CONTAINING SEALED SOURCE IS MANUFACTURED COMMERCIALY, GIVE FOLLOWING INFORMATION:**

- A. Manufacturer or supplier of sealed source and/or device: The Ohmart Corporation  
B. Make and model number of sealed source and/or device: (4) Type LAB-236 in Model SHRM source holder  
C. Person who will hold legal title to sealed source: Louis J. Rogers 100 mc each; (1) Model SHRM source holder  
200 mc

**2. (a) NAME OF PERSON WHO WILL PERFORM NECESSARY PERIODIC LEAKAGE TESTS (6-month intervals for beta-gamma; 3-month period for alpha emitters. See instructions)**

Not applicable.

- (b) IF ABOVE PERSON IS NOT THE SUPPLIER, MANUFACTURER, NOR A COMMERCIAL LABORATORY ROUTINELY OFFERING SUCH SERVICES, GIVE BRIEF STATEMENT OF EXPERIENCE OR TRAINING OF SUCH PERSON IN TECHNIQUES TO BE EMPLOYED, A STATEMENT OF LEAK TESTING PROCEDURES INCLUDING EVIDENCE OF ITS EFFICACY AND INSTRUMENTATION TO BE USED:

Not applicable.

**3. ARRANGEMENTS WHICH WILL PREVAIL FOR PERFORMING INITIAL RADIATION SURVEY (if appropriate), SERVICING MAINTENANCE, REPAIR, CONTROL, AND DISPOSAL, ETC., OF THE SOURCE:**

A three-man Radioactive Materials Committee assures that safe handling procedures are observed. A centralized safe storage area has been established. Procedures for return of materials have been established and already used with O. R. N. L.

Safety holder to be permanently mounted against a steel vessel for a density measurement of vessel contents. Area posted and normally not frequented by employees. Radiation survey meters used during installation to safeguard persons mounting the source and to check the area.

**SECTION II—MANUFACTURE**

**4. IF SEALED SOURCE TO BE MANUFACTURED OR FABRICATED BY THE APPLICANT IS DESIGNED TO TRANSMIT ONLY GAMMA RAYS AND CONTAINS IN ELEMENTAL FORM (but not powders) COBALT 60, IRIIDIUM 192, GOLD 198, TANTALUM 182, OR THULIUM 170, GIVE FOLLOWING INFORMATION AND DISREGARD QUESTIONS 5 THROUGH 12 ON THIS SUPPLEMENT:**

- (a) Quantity of byproduct material per source and model number  
(b) Leak testing procedure to be employed:  
(c) Attach annotated engineering drawing of source container and holder, if any.  
(d) Describe label to be affixed to source container and/or source holder (or attach copy. See instructions):

**A. APPLICATION FOR BYPRODUCT MATERIAL LICENSE**  
**SUPPLEMENT B-SEALED SOURCES**

Page Two

**ALL SEALED SOURCES OTHER THAN THOSE DEFINED IN ITEM 4****5. QUANTITY OF BYPRODUCT MATERIAL PER SOURCE AND MODEL OR DRAWING NUMBER****6. MEANS BY WHICH BYPRODUCT MATERIAL WILL BE DEPOSITED IN SOURCE CONTAINER:****7. ATTACH ANNOTATED ENGINEERING DRAWING OF SOURCE CONTAINER AND HOLDER, IF ANY:****8. TYPE OF SEAL TO BE USED TO PRECLUDE LEAKAGE OF RADIOACTIVITY TO EXTERIOR OF SOURCE:****9. IF SOURCE HOLDER IS TO BE USED WILL CONTAINER BE PERMANENTLY OR SEMIPERMANENTLY MOUNTED THEREIN?****10. DESCRIBE LABEL TO BE AFFIXED TO CONTAINER AND/OR SOURCE HOLDER (Or attach copy. See instructions):****11. EVIDENCE OF STABILITY OF SOURCE CONTAINER MATERIAL TO IRRADIATION FROM BYPRODUCT MATERIAL THEREIN (Omit if such stability is obvious):****12. LEAK TESTING PROCEDURE TO BE EMPLOYED INCLUDING EVIDENCE OF ITS EFFICACY AND INSTRUMENTATION TO BE USED:****DEVICES CONTAINING SEALED SOURCE**

(Give following information if sealed source is to be mounted in a device)

**13. ATTACH ANNOTATED ENGINEERING DRAWING OF DEVICE INCLUDING MODEL NUMBER AND DETAILS OF MOUNTING OF CONTAINER OR SOURCE HOLDER IN THE DEVICE:****14. DESCRIBE CONSTRUCTION AND OPERATION OF THE POSITIONING MECHANISM FOR BRINGING SOURCE INTO "ON" AND "OFF" POSITIONS:****15. DESCRIBE CONSTRUCTION AND OPERATION OF READILY VISIBLE INDICATOR OF DEVICE INDICATING "ON" AND "OFF" POSITIONS OF SOURCE:****16. DESCRIBE DESIGN FEATURES WHICH SERVE TO MINIMIZE RADIATION HAZARD FROM THE DIRECT BEAM AND SECONDARY RADIATION (Including type and amount of shielding as well as limited accessibility inherent in installations where use is contemplated)****17. DESCRIBE LABEL TO BE AFFIXED TO DEVICE (Or attach copy. See instructions):****18. RADIATION PROFILE OF A PROTOTYPE DEVICE IS ATTACHED. (Circle your answer).**

YES

NO

IN REPLY REFER TO:  
IEB:JNM (1612)

Oak Ridge, Tennessee  
August 8, 1956

Mr. G. S. Givens  
Works Purchasing Department  
Carbide & Carbon Chemicals Company  
South Charleston 3, West Virginia

Subject: APPLICATION FOR CESIUM 137

Dear Mr. Givens:

This is to acknowledge receipt of your letter of July 20, wherein you submitted an application on behalf of Mr. L. J. Rogers for a 600 millicurie Cesium 137 source.

It was noted that this encapsulated source was to be obtained from The Chmart Corporation in Cincinnati, Ohio. Mr. H. L. Cook of Chmart was contacted by telephone in an endeavor to expedite our consideration of this application as you requested. However, he was not familiar with this request and therefore could not provide us with the additional information we shall need to receive. We have enclosed three copies of our supplement, Application Form AEC-313B and Items 1, 2 and 3 of two copies should be completed and returned to this office. We are particularly interested in the LAB drawing number of the encapsulated source and the model number of the source container. LAB-236 100M<sup>+</sup> CS SHYLM

We shall be pleased to continue our review upon receipt of this additional information.

Very truly yours,

AKEA  
POSTED  
W. A. [signature]

for Lester R. Rogers, Chief  
Isotope Licensing Branch  
Isotopes Extension  
Division of Civilian Application

Enclosure:

AEC-313B (3)

OFFICE ▶

cc: Mr. H. L. Cook

SURNAME ▶

DATE ▶

Isotopes  
Maddox/dwp

Isotopes  
Jra

8-8-56

8-8-56