

GENERAL  ELECTRIC
COMPANY

VALLEY FORGE SPACE TECHNOLOGY CENTER (MAIL: P. O. BOX 8555 PHILA., PA. 19101) .. TEL. 962-2000

MISSILE AND
SPACE DIVISION

February 8, 1968

Mr. Robert Brinkman
United States Atomic Energy Commission
Isotopes Branch
Washington, D. C. 20545

Dear Mr. Brinkman:

Request Byproduct Material License No. #37-2006-65 be amended to include one (1) millicurie of Strontium - 90 in sealed sources. The user of these sources will be Mr. N. B. Koepp-Baker. The necessary information on the sources and on Mr. Koepp-Baker's background is included in the attached form AEC 313.

Please advise whether it is preferable to request license amendments using form AEC 313 or by letter. If the former please send several copies for my future use.

If you have any questions or need futher information to evaluate this request, please call me at your convenience.

Very truly yours,

Robert O. McClintock

Robert O. McClintock
Health Physicist
Room M-1020, Valley Forge
Ext. 5926

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UNITED STATES ATOMIC ENERGY COMMISSION
APPLICATION FOR BYPRODUCT MATERIAL LICENSE

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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.

1. (a) NAME AND STREET ADDRESS OF APPLICANT. (Institution, firm, hospital, person, etc. Include ZIP Code.)

Same as License 37-2006-05

(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (If different from 1 (a). Include ZIP Code.)

Same as License 37-2006-05

2. DEPARTMENT TO USE BYPRODUCT MATERIAL

Same as License 37-2006-05

3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.)

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.)

N. B. KOEPP-BAKER

5. RADIATION PROTECTION OFFICER (Name of person designated as radiation protection officer if other than individual user. Attach resums of his training and experience as in Items 8 and 9.)

Same as License 37-2006-05

6. (a) BYPRODUCT MATERIAL. (Elements and mass number of each.)

Strontium - 90

(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.)

The Sr-90 will be contained in sealed Cerenkov Light Sources (Model 1 HID) manufactured by Minnesota Mining & Manufacturing Co. (see attached drawing number T921-677). Each source contains approximately 0.1 millicurie of Sr-90. A Maximum of ten (10) sources will be on hand at any one time for a total of one millicurie.

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.)

see attachment

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

8. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
a. Principles and practices of radiation protection	see attachment		Yes No	Yes No
b. Radioactivity measurement standardization and monitoring techniques and instruments			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			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
		see attachment		

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)
Same as License 37-2006-05					

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE.
Same as License 37-2006-05

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED. (For film badges, specify method of calibrating and processing, or name of supplier.)
Same as License 37-2006-05

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
Same as License 37-2006-05


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.
Same as License 37-2006-05

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.
Same as License 37-2006-05

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 2/9/68



Applicant named in item GENERAL ELECTRIC CO

By: Robert O. McQuinnick

Title of certifying official GE/MSD HEALTH PHYSICIST

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.

7. The sources are a fixed part of three (3) identical instruments each containing two (2) sources. The Backscatter Ultraviolet Instruments are manufactured by Beckman Instruments, Inc. (2500 Harbor Ave. Fullerton, California) under National Aeronautics and Space Administration specification S-623-P1(Goddard Space Flight Center, Greenbelt Maryland). The instruments will be subjected to electrical, mechanical and vacuum-thermal testing. The test specifications are contained in NASA specification S-320-NI-3-A entitled "Environmental Test Specification for Nimbus D Subsystems.

8. Type of Training:

- 8a.- North Carolina State College 4 months
 Raleigh, N.C.

- Nevada Test Site 1 week
 Mercury, Nevada

- 8b.- North Carolina State College 4 months
- c- Raleigh, N.C.
- d- Formal Course

9. Experience With Radiation.

Isotope	Maximum Amount	Where Experience Was Gained	Duration of Experience	Type of Use
Co-60	10,000 curies	General Electric Co. Schenectady, N. Y.	3 years	Radiation effects testing
Co-60	2 curies	Technical Operations Inc.	1 year	Shielding experiments
Cs-137	25 curies	Technical Operations Inc.	1 year	Shielding experiments
Ir-192	10,000 C/month	Technical Operations Inc.	1 year	Assist Safety Officer

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