

APPLICATION FOR BYPRODUCT MATERIAL LICENSE

INSTRUCTIONS.—Complete Items 1 through 16 if this is an initial application. If application is for renewal of a license, complete only Items 1 through 7 and indicate new information or changes in the program as requested in Items 8 through 15. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail three copies to: U. S. Atomic Energy Commission, Washington 25, D. C. Attention: Isotopes Branch, Division of Licensing and Regulation. 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.) North American Aviation, Inc. Rocketdyne Division 6633 Canoga Avenue Canoga Park, California		(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (If different from 1 (a).) Rocketdyne Division Propulsion Field Laboratory Santa Susana, California	
2. DEPARTMENT TO USE BYPRODUCT MATERIAL Special Projects Group Department 596-95		3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.) 4-4292-1 (not renewal)	
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.) Robert B. Kimball		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.) Rex B. Gordon	
6. (a) BYPRODUCT MATERIAL. (Elements and mass number of each.) Strontium - 90		(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLCURIES 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.) 300 millicuries contained in one sealed capsule.	

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.)

Industrial Nucleonic Corporation Model BBO010 sealed capsule which will be used in Industrial Nucleonics' Model FDH-3 measuring system.

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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)	
			Yes	No	Yes	No
a. Principles and practices of radiation protection	New Brunswick Laboratory New Brunswick, New Jersey	1949-52	Yes	No	Yes	No
b. Radioactivity measurement standardization and monitoring techniques and instruments	Phillips Petroleum Company NAT Reactor Testing Station Idaho Falls, Idaho	1954-58	Yes	No	Yes	No
c. Mathematics and calculations basic to the use and measurement of radioactivity	Advanced Radiochemistry Course Graduate School		Yes	No	Yes	No
d. Biological effects of radiation	University of Idaho	1 Semester	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
Sr 90	30 mc	New Brunswick Lab.	4 years	Tracer Analysis
Mixed Fission Products	3,000 r	Phillips Petroleum Co. MRTS	4 years	Remote Chemical Analysis

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)
Nuclear Chicago, Model 2612-M Portable Survey Meter	1	Beta & Gamma	0.01 to 20 mr/hr	Wall thickness 35 mg/cm ²	Monitoring and surveying
Jordon Electronics Model AGB10KG-Sr. Portable Radiation Monitor	1	Alpha, Beta & Gamma	0.01 mr/hr to 10,000 r/hr	20 mg/cm ²	Monitoring

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE. Instruments recalibrated before each operation using a calibrated radium source with the Model 2612-M and a calibrated Sr 90 source with the ABG-10KC-SR, which are supplied with the instruments.

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED: (For film badges, specify method of calibrating and processing, or name of supplier.)
 Film badges - supplied by U.S. Nuclear Corporation, P.O. Box 2002, Burbank, California and the Health Physics Group of Atomics International, Division of North American Aviation. Dosimeters - Landsverk Model L-24 K Dosimeter, Kit.

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS

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

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 27 AUG 1959
 By: ROCKETDYNE, DIV. OF NAA
W. R. Hake
 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.