

4-860-4

Form AEC-313 (2-57)	ATOMIC ENERGY COMMISSION APPLICATION FOR BYPRODUCT MATERIAL LICENSE		Form approved Budget Bureau No. 38-8027.3.
<p>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 two copies to: U. S. Atomic Energy Commission, P. O. Box E, Oak Ridge, Tenn. Attention: Isotopes Extension, Division of Civilian Application. 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.) Northrop Aircraft, Inc. Northrop Division 1001 E. Broadway Hawthorne, California		(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED (If different from 1 (a).) Same	
2. DEPARTMENT TO USE BYPRODUCT MATERIAL Department 3200 Nuclear Technology		3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.) New	
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.) R. H. Johnson C. E. Cole		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.) Lee B. Johnson (Chief Safety Engineer)	
6. (a) BYPRODUCT MATERIAL (Elements and mass number of each.) Sb-124 Zn-65		(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.) SbCl ₃ and SbOCl in HCl solution - 1 mc. ZnCl ₂ in HCl solution - 1 mc.	
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.) These tracers will be utilized in laboratory experiments to determine their feasibility for non-destructive testing by autoradiographic means of new brazing techniques.			

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ITEM 8: Type of TrainingDuration of
TrainingOn the JobFormal Course

R. H. Johnson

a.	Washington Univ., St. Louis, Mo.	18 mos.	No	Yes
b.	" "	"	Yes	Yes
c.	" "	"	No	Yes
d.	" "	"	No	Yes

C. E. Cole

a.	Northrop Aircraft, Inc.	6 mos.	Yes	No
b.	" "	"	Yes	No
c.	" "	"	Yes	No
d.	" "	"	Yes	No

Mr. Cole is scheduled to attend ORINS soon.

L. B. Johnson

a.	Los Angeles City Schools--Radiological Monitor Training Course	1 year night school	No	Yes
b.	" " "	"	No	Yes
c.	" " "	"	No	Yes
d.	" " "	"	No	Yes

ITEM 9: Experience With Radiation

<u>Isotope</u>	<u>Maximum Amount</u>	<u>Where Experience was Gained</u>	<u>Duration of Experience</u>	<u>Type of Use</u>
R. H. Johnson				
Tl 204	1 mc	Washington U., St. Louis, Mo.	18 months	Isotopic Dila- tion Exp.
Co 60	1500c	WADC, USAF, Dayton, Ohio	3 years	Radiation Effects Studies
Co 60	19,000c	WADC, USAF, Dayton, Ohio	6 months	Radiation Effects Studies
Sr 90	500 mc	Northrop Aircraft, Inc. Hawthorne, California	6 months	Light-Sources
C. E. Cole				
Sr 90	500 mc	Northrop Aircraft, Inc. Hawthorne, California	6 months	Light-Sources
L. B. Johnson				
Co 60	6 curies	Los Angeles City School -- Radiological Monitor Training Course	3 years - intermit- tent use.	Calibration of 500r per hour - instruments & monitoring practice.
Sr 90	500 mc	Northrop Aircraft, Inc. Hawthorne, California	3 years	Light-source lab work.
X-ray	Max. Oper. 140 KVP	Northrop Aircraft, Inc. Hawthorne, California	3 years	Industrial metals; weld in- spection.

EM 14:

Personnel will wear film badges and pocket dosimeters. Frequent monitoring of the lab area will be accomplished.

ITEM 15:

Waste disposal for the laboratory will be performed by Isotope Specialties Co., Burbank, California. However, when possible in accordance with LOCFR 20.303, the material will be released into the sewerage system.