Form AEC-313 8-64 10 CFR 30 UNITED STATES ATOMIC ENERGY COMMISSION

## APPLICATION FOR BYPRODUCT MATERIAL LICENSE



Form approved. Budget Bureau No. 38-R027

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 an all applications. Mail two capies 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, Parl 30, and the Licensee is subject to Title 10, Code of Federal Regulations, Parl 20.

(a) HAME AND STREET ADDRESS OF APPLICANT (Institution, firm, hospital person, etc. include ZP Code.)

Mellon Institute 4400 Fifth Avenue Pittsburgh, Pennsylvania 15213 (b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED (If different from 1 (a). Include ZIP Code.)

Radiation Research Laboratories Delmont Pennsylvania 15632

2. DEPARTMENT TO USE EYPRODUCT MATERIAL

Radiation Research Laboratories

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

37-909-5 (Amendment #6)

 BNDIVIDUAL 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.)

> Dr. Robert H. Schuler, Head Radiation Research Laboratories

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

Same

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

(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 septed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source)

Cobalt 60

26,400 curies, AECL doubly encapsulated type C-166 sources mounted in a Gammacell 220 irradiator.

7 DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. (If byproduct material is far "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.)

To be used in an AECL Gammacell 220 Irradiator for irradiation studies.

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	OF TRAINING		WHERE TRAINED				OF ON TH	ON THE JOB (Circle answer)		FORMAL COURS (Circle answer)	
o. Princi	ples and practices of radiation	an					Yes			No	
<ul> <li>Radioactivity measurement standardiza- tion and maniforing techniques and in- struments</li> </ul>							Yes	No	Yes No		
	matics and calculations basic to the measurement of radioactivity	•					Yes	No	Yes	No	
d Biolog	ical effects of radiation	-					Yes	No.	Yes	No	
9 EXPER	ENCE WITH RADIATION. (Actue	al use of radiais	otopes or equiva	lent experi	mce.)						
ISOTOPE	MAXIMUM AMOUNT V	VHERE EXPERIENCE	EXPERIENCE WAS GAINED DURATION OF EXP					TYPE OF USE			
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-	TION DETECTION INSTRUMENTS	(Use supplen	nental sheets if n	ecessary.)							
	TYPE OF INSTRUMENTS nake and model number of each)	NUMBER	RADIATION			WINDOW THICKNES (mg/cm²)		(Monitoring, surveying, meas		ng)	
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