



**MELPAR, INC.**  
7700  
~~3000~~ ARLINGTON BOULEVARD, FALLS CHURCH, VIRGINIA 22046  
AREA CODE 703 JEFFERSON 4-6000

18 October 1965

Atomic Energy Commission  
Washington 25, D. C.

Attn: Mr. Robert E. Brinkman,  
Isotopes Branch, Division  
of Licensing & Regulation

Re: Byproduct Material License,  
No. 45-7548-1 (G67). -  
Supplementary Application

Gentlemen:

Enclosed find supplementary application, executed in duplicate, requesting an amendment to the above license, permitting the use of Carbon 14 (6A) by Dr. Earl Usdin, Senior Scientist, and the use of Phosphorus 32 (6B) by Dr. Vera Usdin, Senior Scientist.

If there is any further information you desire, we will be pleased to furnish it.

Very truly yours,

MELPAR, INC.

Austin G. Roe  
House Counsel

Enclosures



A-62

Form AEC-313 8-64 10 CFR 30	SUPPLEMENTARY <b>APPLICATION FOR BYPRODUCT MATERIAL LICENSE</b>	Form approved. Budget Bureau No. 38-R027								
<p><b>INSTRUCTIONS.</b>—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.</p>										
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top; padding: 5px;"> <p>1. (a) NAME AND STREET ADDRESS OF APPLICANT. (Institution, firm, hospital, person, etc. Include ZIP Code.)</p> <p>Melpar, Inc. 7700 Arlington Blvd. Falls Church, Virginia</p> </td> <td style="width: 50%; vertical-align: top; padding: 5px;"> <p>(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (If different from 1 (a). Include ZIP Code.)</p> </td> </tr> <tr> <td style="vertical-align: top; padding: 5px;"> <p>2. DEPARTMENT TO USE BYPRODUCT MATERIAL</p> <p>Research Division</p> </td> <td style="vertical-align: top; padding: 5px;"> <p>3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.)</p> <p>#45-7548-1 (including amendments) (G67)</p> </td> </tr> <tr> <td style="vertical-align: top; padding: 5px;"> <p>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.) ADD to list of individual users of:</p> <p>Carbon 14 (6A) - Dr. Earl Usdin, Sr. Scientist; Phosphorus 32 (6B) - Dr. Vera Usdin, Senior Scientist.</p> </td> <td style="vertical-align: top; padding: 5px;"> <p>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.)</p> <p style="text-align: center;">No change</p> </td> </tr> <tr> <td style="vertical-align: top; padding: 5px;"> <p>6. (a) BYPRODUCT MATERIAL. (Elements and mass number of each.)</p> <p>No change</p> </td> <td style="vertical-align: top; padding: 5px;"> <p>(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.)</p> <p style="text-align: center;">No change</p> </td> </tr> </table>			<p>1. (a) NAME AND STREET ADDRESS OF APPLICANT. (Institution, firm, hospital, person, etc. Include ZIP Code.)</p> <p>Melpar, Inc. 7700 Arlington Blvd. Falls Church, Virginia</p>	<p>(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (If different from 1 (a). Include ZIP Code.)</p>	<p>2. DEPARTMENT TO USE BYPRODUCT MATERIAL</p> <p>Research Division</p>	<p>3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.)</p> <p>#45-7548-1 (including amendments) (G67)</p>	<p>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.) ADD to list of individual users of:</p> <p>Carbon 14 (6A) - Dr. Earl Usdin, Sr. Scientist; Phosphorus 32 (6B) - Dr. Vera Usdin, Senior Scientist.</p>	<p>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.)</p> <p style="text-align: center;">No change</p>	<p>6. (a) BYPRODUCT MATERIAL. (Elements and mass number of each.)</p> <p>No change</p>	<p>(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.)</p> <p style="text-align: center;">No change</p>
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<p>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.)</p> <p style="text-align: center;">No change</p>										

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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			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
		No change		

## 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 <sup>2</sup> )	USE (Monitoring, surveying, measuring)
		No change			

## 11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE.

No change
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## 12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED. (For film badges, specify method of calibrating and processing, or name of supplier.)

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## 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	No change
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.	No change
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.	No change

## 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 15 October 1965

**RECEIVED**  
OCT 19 1965  
U.S. ATOM. ENERGY COMMISSION  
FBI DIV  
WASH DC

MELPAR, INC.  
Applicant named in item 1

Dr. P. E. Ritt, Vice President-Research & Engineering  
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.