

ATOMIC ENERGY COMMISSION
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.)

Department of the Army
Headquarters, US Army, Alaska
APO Seattle 98749

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

USARAL Radioactive Material Disposal
Facility, Headquarters, USARAL Support
Command, Fort Richardson, Alaska

2. DEPARTMENT TO USE BYPRODUCT MATERIAL

USARAL Radioactive Material Disposal
Facility, USARAL Support Command,
Fort Richardson, Alaska

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

Application for renewal of AEC License
50-10023-1

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.)

Chief, Radio-Chemical Laboratory
(See Annex VI for training requirement.)

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.)

See Annex VI for minimum training
requirements.

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

(1) Any byproduct
material with
Atomic Numbers
1 through 84
inclusive.

(2) Source material

(3) Special nuclear
material

(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.)

Any chemical and/or physical form
100 curies total

Any chemical and/or physical form
6000 pounds total

Any chemical and/or physical form
300 grams total



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.)

This is an application for the renewal of AEC License 50-10023-1.

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

B. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
a. Principles and practices of radiation protection	Same as AEC License 50-10023-1		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
Same as AEC License 50-10023-1				

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)
See Annex F of Standing Operating Procedure Number 755-10-001 (Annex III to License 50-10023-1)					

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

Instruments are calibrated every 30 days or more often, if required, and are checked before each use. See Annex III.

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

Same as AEC License 50-10023-1.

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 Same as AEC License 50-10023-1.

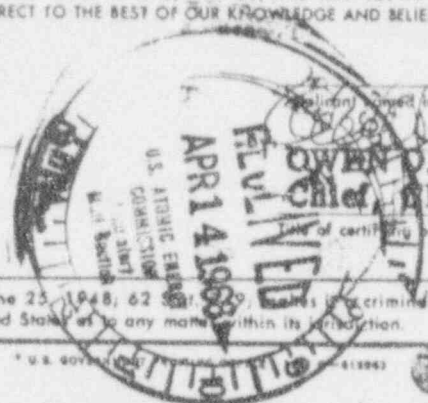
14. RADIATION PROTECTION PROGRAM. Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable, name, training, and experience of person to perform leak tests, and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source. Same as AEC License 50-10023-1.

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. NA.

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 14 FEB 1966



Owen D. Osburn, Lt Col, GS
Chief, RBR Div, G-3

Signature of certifying official

WARNING.—18 U. S. C., Section 1001; Act of June 25, 1948, 62 Stat. 1047, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States or to any matter within its jurisdiction.

ANALYSIS OF CHANGES TO STANDARD OPERATING PROCEDURE FOR USARAL RADIOACTIVE MATERIAL DISPOSAL FACILITY

PREVIOUS SOP			NEW SOP		
Paragraph or Annex	Subject	Changes	Paragraph or Annex	Subject	Additions
1	Purpose	No change.	1	Purpose	As stated in previous SOP.
2	References	<p>Changed to Para 10 in new SOP being submitted.</p> <p>The following changes are noted:</p> <ol style="list-style-type: none"> 1. Para 1a, AR 40-25 has been superseded by AR 40-4. 2. Para 1b, AR 40-414; Para 1c, AR 40-431; Para 1m, TB MED 254 have been superseded by AR 40-14. 3. Para 1d, AR 40-580 has been superseded by AR 700-52. 4. AR 55-55 has been added as new Army Regulation. 5. TB SIG 226-3 is deleted. 6. TM 11-5514 is deleted. 	10	References	<p>The following additions are noted:</p> <ol style="list-style-type: none"> 1. Para 10a(1), AR 40-4. 2. Para 10a(2), AR 40-14. 3. Para 10a(3), AR 700-52. 4. Para 10a(5), AR 55-55.
3	General	<p>Changed to Para 5 in new SOP. The following changes are noted:</p> <ol style="list-style-type: none"> 1. Correspondence should be addressed to CO, USARAL Spt Comd, ATTN: ARCG, APO Seattle 98749. 2. Annex A shows the layout of the RMDF. 	5	General	<p>The following additions are noted:</p> <ol style="list-style-type: none"> 1. ARCG is Office Symbol of the Chemical Laboratory USARAL Spt Comd. 2. Annex A shows the layout of RMDF.



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PREVIOUS SOP			NEW SOP		
Paragraph or Annex	Subject	Changes	Paragraph or Annex	Subject	Additions
4	Responsibilities	<p>Changed to Para 3 in new SOP. The following changes are noted:</p> <ol style="list-style-type: none"> 1. Para 4a, The Chief, Chemical Laboratory, USARAL Support Command is responsible <p>Explanation: The Facility Supervisor, Para 4b, due to the reorganization of USARAL Support Command on 1 July 1965 assumed responsibilities of Facility Director and carried forward all remaining responsibilities.</p> <ol style="list-style-type: none"> 2. Para 4a(5), 4c, Job Titles have been changed in new SOP to correspond with reorganization mentioned above. Para 4a(5)(a) and (b) remain the same. 3. Para 4c(1) is deleted. 	3	Responsibilities	<ol style="list-style-type: none"> 1. Para 3 contains job titles to correspond with the reorganization. 2. Para 3a(7) replaces Para 4b(1) to further solidify the unwanted access to the RMDF. 3. Para 3b corresponds to Para 4c of old SOP.
5	Support for the Radiation Protection Program.	<p>Changed to Para 3d(1), 3d(2), 3e, 3f, 3g in new SOP.</p>	3	Responsibilities	<ol style="list-style-type: none"> 1. Add Post Engineer as Para 3g. 2. Due to reorganization job titles have been included.

PREVIOUS SOP			NEW SOP		
Paragraph or Annex	Subject	Changes	Paragraph or Annex	Subject	Additions
<u>6</u>	Radiation Protection	Included in Para 6 of new SOP, entitled: Procedure as Sub-para f.	6	Procedure	
7	Transportation of Radioactive Waste	Changed to para 6d in new SOP. Change of notification will be addressed to CO, USARAL Support Command, ATTN: AROG, APO Seattle 98749	6d	Transportation of Radioactive Waste	
8	Radioactive Material Disposal Facility Procedures and Operations	Changed to para 6 in new SOP. Para 8d is now para 6e in new SOP due to the addition of subpara 6d above.	6	Procedure	1. Added para 6d which was para 7 in old SOP. 2. In para 6e(4)(b) the words "Chemical Waste, Not Otherwise Specified" will not be used. This is added to further clarify the Principle Isotope.
9	Procedure in Case of Emergency	Changed to para 6g in new SOP.	6g	Procedure in Case of Emergency	
10	Records and Administration	Changed to Annex H in new SOP.	Annex H	Records, Administration and Accounting Procedures for USARAL RMDF	
A	References	Changed to para 10 in new SOP.	10	References	
B	Physical Layout of USARAL RMDF	Changed to Annex A in new SOP.	A	Physical Layout of USARAL RMDF	Two small buildings have been added to RMDF area for storage of material and packing material.

PREVIOUS SOP			NEW SOP		
Paragraph or Annex	Subject	Changes	Paragraph or Annex	Subject	Additions
C	Protective Clothing and Equipment	Changed to Annex B in new SOP.	B	Protective Clothing and Equipment	
C, App 1	Protective Clothing and Equipment	Changed to para 6, Annex B in new SOP.	Par 6, Annex B	Protective Clothing and Equipment List	
D	Radiological Surveys	Changed to Annex C in new SOP	C	Surveys	
D, App 1	Radiation Measuring Equipment	Changed to para 4, Annex F in new SOP.	Para 4, Annex F	Radiation Measuring Equipment	
E	Personnel Monitoring	Changed to Annex D in new SOP.	D	Personnel Monitoring	
F	Personnel Decontamination	Changed to Annex E in new SOP.	E	Personnel Decontamination	
G	Equipment and Area Decontamination	Changed to Annex F in new SOP	F	Equipment and Area Decontamination	
H	Certificate of Car or Vehicle Decontamination	Changed to Annex G in new SOP. Format is changed to new TM 3-260 which is now in draft form.	G	Certificate of Car or Vehicle Decontamination	
I	Accounting Procedures for USARAL RMDF	Changed to Annex H in new SOP.	H	Records and Administration and Accounting for USARAL RMDF	Added Records and Administration.

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