

NRC Form 313 I
(12-81)
10 CFR 30

U.S. NUCLEAR REGULATORY COMMISSION

1. APPLICATION FOR:
(Check and/or complete as appropriate)

APPLICATION FOR BYPRODUCT MATERIAL LICENSE
INDUSTRIAL

a. NEW LICENSE

b. AMENDMENT TO:
LICENSE NUMBER

c. RENEWAL OF:
LICENSE NUMBER

See attached instructions for details.

Completed applications are filed in duplicate with the Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety, and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555 or applications may be filed in person at the Commission's office at 1717 H Street, NW, Washington, D. C. or 7915 Eastern Avenue, Silver Spring, Maryland.

2. APPLICANT'S NAME (Institution, firm, person, etc.)

Department of Interior
Bureau of Mines
Albany Research Center
TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION
503 967-5809 (FIS 420-5809)

3. NAME AND TITLE OF PERSON TO BE CONTACTED
REGARDING THIS APPLICATION

Boyd D Nash RPO
TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION
FIS 420-5883

4. APPLICANT'S MAILING ADDRESS (Include Zip Code)

(Address to which NRC correspondence, notices, bulletins, etc., should be sent.)

1450 West Queen Ave
Albany, Oregon 97321

5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED
(Include Zip Code)

1450 SW Queen Ave
Albany, Oregon 97321

(IF MORE SPACE IS NEEDED FOR ANY ITEM, USE ADDITIONAL PROPERLY KEYED PAGES.)

6. INDIVIDUAL(S) WHO WILL USE OR DIRECTLY SUPERVISE THE USE OF LICENSED MATERIAL

(See Items 16 and 17 for required training and experience of each individual named below)

FULL NAME

TITLE

a. Arne hands being

Group Supervisor

b. Boyd Nash

Radiation Protection Officer / Safety Manager

c.

7. RADIATION PROTECTION OFFICER

Boyd Nash

Attach a resume of person's training and experience as outlined in Items 16 and 17 and describe his responsibilities under Item 15.

8. LICENSED MATERIAL

L I N E NO.	ELEMENT AND MASS NUMBER	CHEMICAL AND/OR PHYSICAL FORM	NAME OF MANUFACTURER AND MODEL NUMBER (If Sealed Source)	MAXIMUM NUMBER OF MILLCURIES AND/OR SEALED SOURCES AND MAXIMUM ACTI- VITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME
A	B	C	D	
(1)	Ni 63	Metal foil	Gas Chromatograph Tracor Model 222	30 mCi
(2)				
(3)	8512030711 851029 REG5 LIC30			
(4)	36-01142-02 PDR			

DESCRIBE USE OF LICENSED MATERIAL
E

(1) To be used in gas chromatograph in detecting presence
(2) of chlorine and other suitable gases.

(3)

(4)

9. STORAGE OF SEALED SOURCES

LINE NO.	CONTAINER AND/OR DEVICE IN WHICH EACH SEALED SOURCE WILL BE STORED OR USED. A.	NAME OF MANUFACTURER B.	MODEL NUMBER C.
(1)	NA		
(2)			
(3)			
(4)			

10. RADIATION DETECTION INSTRUMENTS

LINE NO.	TYPE OF INSTRUMENT A	MANUFACTURER'S NAME B	MODEL NUMBER C	NUMBER AVAILABLE D	RADIATION DETECTED (alpha, beta, gamma, neutron) E	SENSITIVITY RANGE (milliroentgens/hour or counts/minute) F
(1)	Survey	Eberline	E530	1	α, β, γ	0-200 mR/hr
(2)	Survey	Eberline	PAC 463	1	α	0-100,000 cpm
(3)	Survey	Eberline	PRM 7	1	γ	0-50,000 R/hr
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

<input type="checkbox"/> a. CALIBRATED BY SERVICE COMPANY NAME, ADDRESS, AND FREQUENCY Oregon State University Radiation Laboratory Corvallis, Oregon 97330 Semi-Annual	<input type="checkbox"/> b. CALIBRATED BY APPLICANT Attach a separate sheet describing method, frequency and standards used for calibrating instruments.
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12. PERSONNEL MONITORING DEVICES

TYPE (Check and/or complete as appropriate.) A	SUPPLIER (Service Company) B	EXCHANGE FREQUENCY C
<input type="checkbox"/> (1) FILM BADGE <input checked="" type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD) <input type="checkbox"/> (3) OTHER (Specify): _____	Radiation Detection Company Sunnyvale, California	<input type="checkbox"/> MONTHLY <input checked="" type="checkbox"/> QUARTERLY <input type="checkbox"/> OTHER (Specify): _____

13. FACILITIES AND EQUIPMENT (Check where appropriate and attach annotated sketch(es) and description(s).)

- ☐ a. LABORATORY FACILITIES, PLANT FACILITIES, FUME HOODS (Include filtration, if any), ETC.
- ☐ b. STORAGE FACILITIES, CONTAINERS, SPECIAL SHIELDING (fixed and/or temporary), ETC.
- ☐ c. REMOTE HANDLING TOOLS OR EQUIPMENT, ETC.
- ☐ d. RESPIRATORY PROTECTIVE EQUIPMENT, ETC. NA

14. WASTE DISPOSAL

a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED NA	
b. IF COMMERCIAL WASTE DISPOSAL SERVICE IS NOT EMPLOYED, SUBMIT A DETAILED DESCRIPTION OF METHODS WHICH WILL BE USED FOR DISPOSING OF RADIOACTIVE WASTES AND ESTIMATES OF THE TYPE AND AMOUNT OF ACTIVITY INVOLVED. IF THE APPLICATION IS FOR SEALED SOURCES AND DEVICES AND THEY WILL BE RETURNED TO THE MANUFACTURER, SO STATE. The gas chromatograph is to be loaned to us from an EPA lab for use this year, and will be returned to them at the conclusion of our current project.	

INFORMATION REQUIRED FOR ITEMS 15, 16 AND 17

Describe in detail the information required for Items 15, 16 and 17. Begin each item on a separate page and key to the application as follows:

15. **RADIATION PROTECTION PROGRAM.** Describe the radiation protection program as appropriate for the material to be used including the duties and responsibilities of the Radiation Protection Officer, control measures, bioassay procedures *(if needed)*, day-to-day general safety instruction to be followed, etc. If the application is for sealed source's also submit leak testing procedures, or if leak testing will be performed using a leak test kit, specify manufacturer and model number of the leak test kit.
16. **FORMAL TRAINING IN RADIATION SAFETY.** Attach a resume for each individual named in Items 6 and 7. Describe individual's formal training in the following areas where applicable. Include the name of person or institution providing the training, duration of training, when training was received, etc.
 - a. Principles and practices of radiation protection.
 - b. Radioactivity measurement standardization and monitoring techniques and instruments.
 - c. Mathematics and calculations basic to the use and measurement of radioactivity.
 - d. Biological effects of radiation.
17. **EXPERIENCE.** Attach a resume for each individual named in Items 6 and 7. Describe individual's work experience with radiation, including where experience was obtained. Work experience or on-the-job training should be commensurate with the proposed use. Include list of radioisotopes and maximum activity of each used.

See attachment 1 for items 15, 16, and 17

18. CERTIFICATE

(This item must be completed by applicant)

The applicant and any official executing this certificate on behalf of the applicant named in Item 2, 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.

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.

a. LICENSE FEE REQUIRED <i>(See Section 170.31, 10 CFR 170)</i> <div style="text-align: center;"><i>Government facility</i> <i>None required</i></div>	b. CERTIFYING OFFICIAL <i>(Signature)</i> <div style="text-align: center;"><i>Boyd D Nash</i></div>
(1) LICENSE FEE CATEGORY:	c. NAME <i>(Type or print)</i> <div style="text-align: center;"><i>Boyd D Nash</i></div>
(2) LICENSE FEE ENCLOSED: \$	d. TITLE <div style="text-align: center;"><i>Radiation Protection Officer</i></div>
	e. DATE <div style="text-align: center;"><i>Oct 10, 1985</i></div>

Attachement 1

Item 15 Radiation Protection Program

The radiation protection program at the Albany Research Center is based on compliance with 10 CFR part 19 and 10 CFR part 20, and with the Bureau of Mines safety manual, "Safety and Environmental Health Management Program", 485 WBM.

Other portions of the program are the same as described in our current license.

Items 16 and 17 Training and Experience

Dr. Arne Landsberg completed Radiochemistry courses at both the University of Colorado and Oregon State University. He was a licensed operator for 17 years of the 100,000 curie radiation facility at the Albany Research Center. During part of this period he served as supervisor of the facility. He has served as Radiation Protection Officer at the Albany Research Center.

Boyd D Nash completed a course in Radiochemistry at Idaho State University in 1958 and the Radiation Safety Specialist training program given by Oklahoma State University in 1980. He has B.S. and M.S. degrees in chemistry. He is currently the Safety Manager at the Albany Research Center, and has served as the Radiation Protection Officer at the Center for the past two years.

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