FORM NRC-313 I (3-80) 10 CFR 30

U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR BYPRODUCT MATERIAL LICENSE
INDUSTRIAL

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.

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

	a. NEW LICENSE
X	b. AMENDMENT TO: LICENSE NUMBER 25-15247-01
	c. RENEWAL OF: LICENSE NUMBER

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

City of Great Falls

TELEPHONE NUMBER: AREA CODE – NUMBER EXTENSION
406-727-5881, ext. 431

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

Dale Clark, Inspector

TELEPHONE NUMBER: AREA CODE – NUMBER EXTENSION
406-727-5881, ext. 431

4. APPLICANT'S MAILING ADDRESS *(Include Zip Code)*
(Address to which NRC correspondence, notices, bulletins, etc., should be sent.)

Public Works Department
P.O. Box 5021
Great Falls, MT 59403

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

The entire City limits

(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.	Dale Clark Ken Jorgensen	Engineering Tech III Street Division Supervisor
b.	Mike Murray	Engineer II
c.	John Almon	Engineering Tech III

7. RADIATION PROTECTION OFFICER

Dale Clark

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

LINE NO.	A ELEMENT AND MASS NUMBER	B CHEMICAL AND/OR PHYSICAL FORM	C NAME OF MANUFACTURER AND MODEL NUMBER *(If Sealed Source)*	D MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTIVITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME
(1)	Cesium 137	Sealed Source	Troxler Drawing #A-102112	not to exceed 9MC1 per source
(2)	Americium 241:BE	Sealed Source	Troxler Drawing #A-102451	not to exceed 40MC1 per source
(3)				
(4)				

	E DESCRIBE USE OF LICENSED MATERIAL
(1)	To be used in a Troxler 3400 series. Surface moisture density
(2)	gauges to measure properties of construction materials.
(3)	
(4)	

~~June 12~~ June 5

FEE EXEMPT 15003
170.11(a)(9)

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)	Surface Moisture Density Gauge	Troxler Electronics	3400 Series
(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)	None					
(2)						
(3)						
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

☐ a. CALIBRATED BY SERVICE COMPANY

NAME, ADDRESS, AND FREQUENCY

N/A

☐ b. CALIBRATED BY APPLICANT

Attach a separate sheet describing method, frequency and standards used for calibrating instruments.

12. PERSONNEL MONITORING DEVICES

TYPE (Check and/or complete as appropriate.) A	SUPPLIER (Service Company) B	EXCHANGE FREQUENCY C
XX (1) FILM BADGE	Eberline Instrument Corp. Box 2108 Santa N.M.	XX MONTHLY
☐ (2) THERMOLUMINESCENCE DOSIMETER (TLD)		☐ QUARTERLY
☐ (3) OTHER (Specify): _____		☐ OTHER (Specify): _____

13. FACILITIES AND EQUIPMENT (Check were 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.

14. WASTE DISPOSAL

a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED

N/A

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.

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.

RECEIVED BY LFMB
Date 6/20/83
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By Jacques
Orig. To
Action Compl.

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.

19. 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.

83 JUN -6 P2:42

a. LICENSE FEE REQUIRED *(See Section 170.31, 10 CFR 170)*	b. CERTIFYING OFFICIAL *(Signature)* Lyle Meeks
	c. NAME *(Type or print)* Lyle Meeks
(1) LICENSE FEE CATEGORY:	d. TITLE Supervisor, Utilities Division
(2) LICENSE FEE ENCLOSED: $	e. DATE June 2, 1983

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15003

15. Everyone has film badges to use. Dale Clark does leakage tests and they are then sent to Eberline Instrument Corporation. Personnel are checked out by State and Instruction manuals for reference. Machine is sent to factory for repairs if we find problems with source.

16. Dale Clark - Radiation Protection Officer

16a. Northern Testing Lab - Northern Materials and the City of Great Falls have supplied Dale with some formal and informational training. (14 years)

16b. City of Great Falls - on the job training. (6 years)

16c. None

16d. Same as 16a.

Ken Jorgensen

16a. State Highway Department on interstate highways and City of Great Falls. Has received on the job training. (13 years)

16b. City of Great Falls - on the job training. (6 years)

16c. None

16d. Same as 16a. On the job training. (13 years)

Mike Murray

16a. City of Great Falls, Professional Consultants, Inc. Has received on the job training and formal training. (4 years)

16b. City of Great Falls - on the job training. (1 year)

16c. None

16d. Same as 16a. On the job training. (4 years)

17. Dale Clark - Isotope - 10 years of experience on machine. Cesium 137 - 10 millicuries; Americium 241 - 50 millicuries. With this particular machine experience gained by using it with different projects in the City. Attended a one-day school - Campbell Pacific Nuclear Corporation.

Ken Jorgensen - 9 years of experience on machine. Isotope and maximum amount same as above. Use of machine - same as above.

Mike Murray - 1 year of experience on Campbell Pacific. Mr. Murray has used the Troxler Nuclear 3411B for 3 years around the Missoula, Montana areas and has attended a one-day school on the Troxler in Missoula.

No. 6(d) John Almon - Inspector

16. (a) Thomas, Dean & Hoskins, Consulting Engineers

4 years of on the job training

(b) City of Great Falls

4 months on the job training

(c) None

(d) Same as 16(a). On the job training

4 years on the job training

17. John Almon - 4 years of experience on Troxler Nuclear 3411B, and 4 months of experience on Campbell Pacific Nuclear. Isotope and maximum is: Cesium 137-10 millicuries; Americium 241-50 millicuries.

No formal training.