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NLH 23691

NRC Form 313 I (12-81) 10 CFR 30 — U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR BYPRODUCT MATERIAL LICENSE
INDUSTRIAL

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

- ✓ 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.)*

CAMET CO.

TELEPHONE NUMBER: AREA CODE – NUMBER EXTENSION
216/569-3245

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

William A. Whittenberger, Mgr. of Eng.

TELEPHONE NUMBER: AREA CODE – NUMBER EXTENSION
216/569-3245

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

12000 Winrock Rd.
Hiram, Ohio 44234 USA

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

12000 Winrock Rd.
Hiram, Ohio 44234 USA

(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.	David A. Becker	Acting Production Manager
b.	Patrick K. Durst	Senior Technician
c.	William A. Whittenberger	Manager of Engineering

7. RADIATION PROTECTION OFFICER

Brian Davis

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)	Cs-137	Sealed	Texas Nuclear Model #696894	See attached sheet.
(2)				
(3)				
(4)				

DESCRIBE USE OF LICENSED MATERIAL
E

(1) See attached sheet.
(2)
(3)
(4)

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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)	Source Holder (1)	Texas Nuclear	5201
(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)	No radiation detection instrumentation is necessary					
(2)	to safely possess and utlize these devices.					
(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.

N/A

12. PERSONNEL MONITORING DEVICES

TYPE (Check and/or complete as appropriate.) A	SUPPLIER (Service Company) B	EXCHANGE FREQUENCY C
☐ (1) FILM BADGE	See attached sheet.	☐ MONTHLY
☐ (2) THERMOLUMINESCENT DOSIMETER (TLD)		☐ QUARTERLY
☐ (3) OTHER (Specify): _____		☐ 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.

N/A

14. WASTE DISPOSAL

a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED

See attached sheet.

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:

See attached sheet.

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.

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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 *(See Section 170.31, 10 CFR 170)* $230.00	b. CERTIFYING OFFICIAL *(Signature)* William A Whittenberger
	c. NAME *(Type or print)* William A. Whittenberger
(1) LICENSE FEE CATEGORY: 3P	d. TITLE Manager of Engineering
(2) LICENSE FEE ENCLOSED: $ $230.00	e. DATE 06/11/87

ATTACHMENT FOR APPLICATION FOR BYPRODUCT MATRIAL LICENSE

8.(d) LICENSED MATERIAL. Sealed Sources. For possession and use in Texas Nuclear devices which have been evaluated and approved for licensing purposes and authorized for distribution under a license issued by the Nuclear Regulatory Commission or an Agreement State.

8.(e) LICENSED MATERIAL. Use of licensed material. The gauge is to be used to continuously measure solids content in a slurry feed tank. This allows make-up water to be automatically added to the system.

The gauge/feed tank is located approximately eight feet above the factory floor, where it feeds a process just above floor level. Slurry is pumped into the feed tank from a barrel located on the floor. There is a service platform approximately fifteen feet above floor level.

There are no severe environmental conditions that can effect the integrity of the source and shielding. All Environmental factors have been presented to the manufacturer for evaluation prior to specifying these devices.

12.
(a,b & c) PERSONNEL MONITORING DEVICES. No additional personnel monitoring devices need be utilized due to the presence of these gauging devices. The source holder(s) are designed such that radiation levels will be less than 5mR/h one foot from any accessible surface at the maximum source loading for the device with the device in the OFF position. When these devices are installed in their designed configuration on the pipes and the shutter(s) opened, the radiation levels will still be less than 5mR/h one foot from any accessible surface. It is not likely, when consideration is given to the totally enclosed radiation beam area and to the precautions given blow, that any individual will receive a radiation exposure in excess of 0.125 rem per calendar quarter.

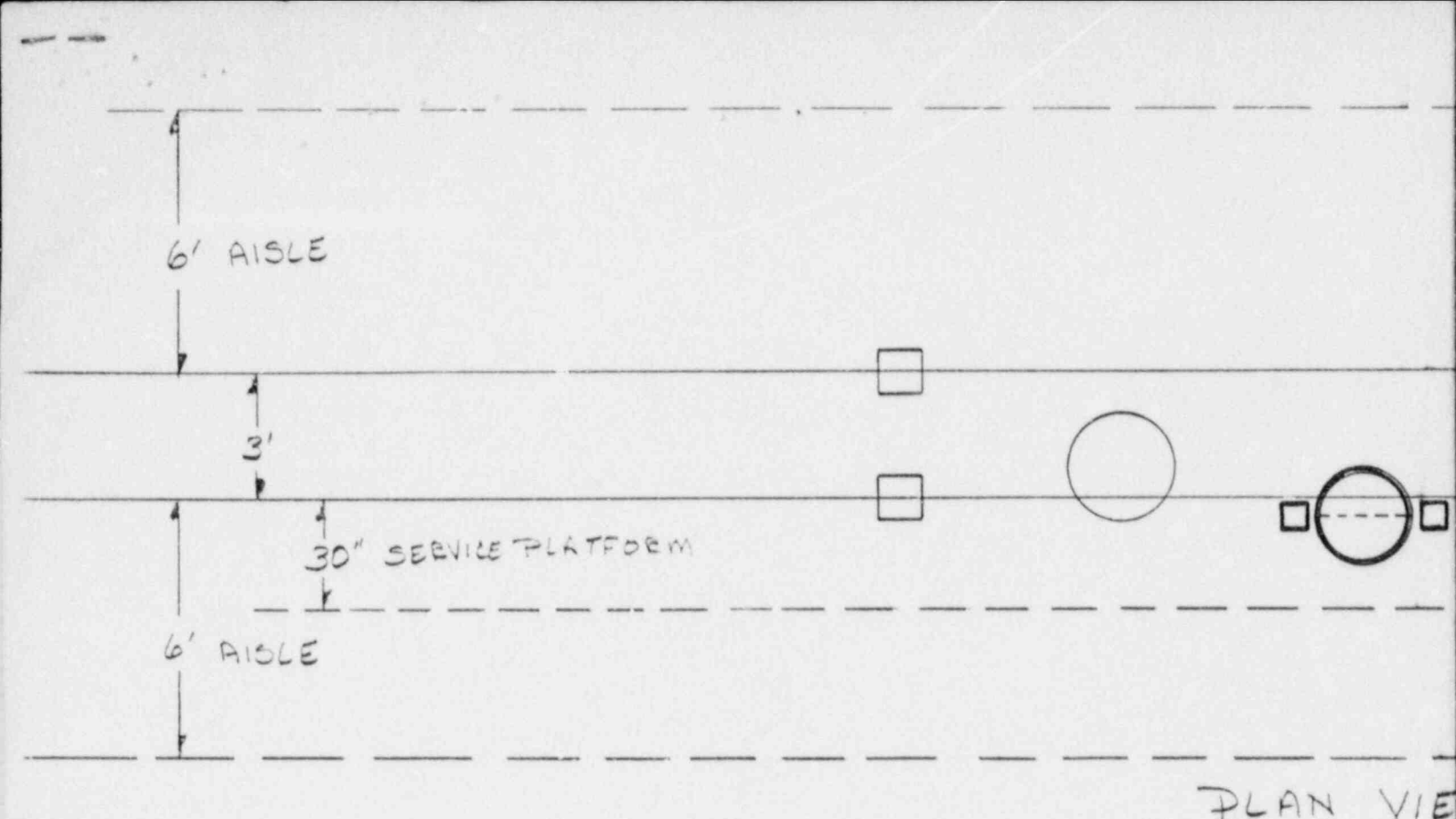
14.
(a & b) WASTE DISPOSAL. No waste disposal is involved. In the event that the gauge is damaged or its use discontinued, we shall notify Texas Nuclear for removal and return the gauge for repair or disposal of the source material.

15. RADIATION PROTECTION PROGRAM. Operators have no direct access to the gauge. They may pass below it by walking along the floor aisle. They may pass above it by walking the service platform. A ladder or rolling stairway is required for access to the gauge.

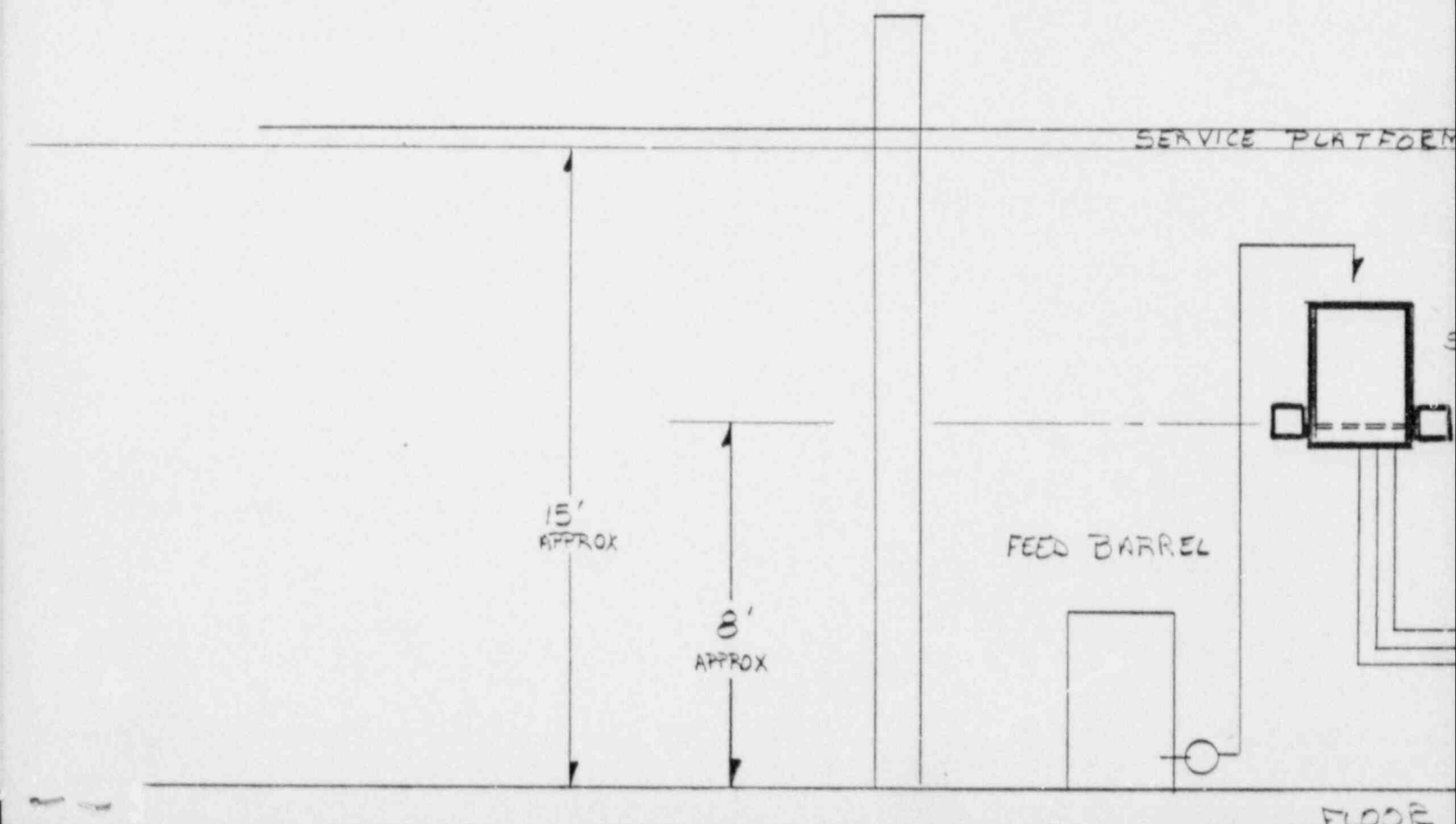
One operator will normally be in the aisle area below the gauge at all times. One person would be on the service platform above the gauge perhaps one hour per week. Our personnel will be instructed that they are not to remove the source holder(s) under any circumstances. There is no access to the beam area as long as the source holder(s) are installed.

16. FORMAL TRAINING IN RADIATION SAFETY. The manufacturer will furnish us with detailed instructions on the proper precautions to be taken in utilizing these devices. Specific items of design detail, shutter operation, beam geometry, radiation levels and regulatory compliance will be presented by trained personnel of Texas Nuclear at the time these devices are installed.

17. EXPERIENCE. See detail presented in above item.



PLAN VIE



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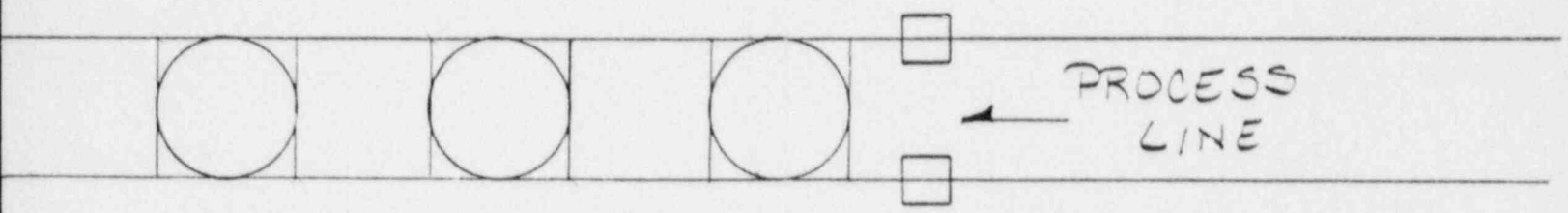

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SLURRY FEED TANK

NUCLEAR
DENSITY GAUGE

PROCESS LINE LOCATION
FOR
NUCLEAR DENSITY GAUGE
6-1-87

COATING PROCESS

ELEVATION VIEW