

APPLICATION FOR BYPRODUCT MATERIAL LICENSE
INDUSTRIAL

L+L 19505

☒ a. NEW LICENSE **30-17803**

b. AMENDMENT TO LICENSE NUMBER **Proy 03110**

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.) Sooner Pride Services Inc. TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION 918 885 2277	3. NAME OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION LARRY D Hensley TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION 918 885 2277 OR 918 885 2028
4. APPLICANT'S MAILING ADDRESS (Include Zip Code) PO Box 126 Homing OKLA 74035	5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED (Include Zip Code) temporary 366 sites in Oklahoma + Kansas

(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. Larry D. Hensley	President & General Manager
b. Randall Bryant	Assistant
c.	

7. RADIATION PROTECTION OFFICER
LARRY D. Hensley

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

B. LICENSED MATERIAL				
LINE NO.	ELEMENT AND MASS NUMBER	CHEMICAL AND/OR PHYSICAL FORM	NAME OF MANUFACTURER AND MODEL NUMBER (If Sealed Source)	MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTIVITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME
	A	B	C	D
(1)	AM 241 BE 9	solid	Gulf Nuclear Inc 71-1	1 source 3 ci
(2)				
(3)	COPIES SENT TO OFF. OF INSPECTION AND ENFORCEMENT			
(4)				

DESCRIBE USE OF LICENSED MATERIAL

(1) **Neutron well logging** / **Logging Tool**
GEAR heat-Owen 1 1/2 Gamma Ray

(2) **CEL Neutron (scint) Logging Tool**

(3) **Model No (002-9010-002)**

(4) **David A. Moore**

RECEIVED BY LFMB

Date: **AUG 1 1980**

Log: **AUG 10 3 11 L.**

By: **Brown**

Orig. To:

Action Compl: **8/20/80**

Applicant:

Check No:

Amount, Fee: **\$400.00 (\$A)**

Type of Fee: **APPL**

Date Check: **AUG 18 1980**

Received By: **Brown**

8009180111

Am Be - 71-1

B. STORAGE OF SEALED SOURCES

LINE NO.	CONTAINER AND/OR DEVICE IN WHICH EACH SEALED SOURCE WILL BE STORED OR USED.	NAME OF MANUFACTURER	MODEL NUMBER
A.		B.	C.
(1)	3ci Neutron Shield	Gulf Nuclear Inc	DOT 7-A Neutron Shield
(2)			
(3)			
(4)			

10. RADIATION DETECTION INSTRUMENTS

LINE NO.	TYPE OF INSTRUMENT	MANUFACTURER'S NAME	MODEL NUMBER	NUMBER AVAILABLE	RADIATION DETECTED (alpha, beta, gamma, neutron)	SENSITIVITY RANGE (milliroentgens/hour or counts/minute)
A.		B.	C.	D.	E.	F.
(1)	giger Tube	Victoreen	493	1	Beta gamma	1 to 50 MR/HR
(2)						
(3)						
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

<input checked="" type="checkbox"/> a. CALIBRATED BY SERVICE COMPANY Not to NAME, ADDRESS, AND FREQUENCY Exceed Gulf Nuclear Inc Every 6 months	<input type="checkbox"/> 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
<input type="checkbox"/> (1) FILM BADGE <input checked="" type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD) <input type="checkbox"/> (3) OTHER (Specify): Whole Body	ICN Dosimetry Service 26201 miles Rd Cleveland Ohio 44128	<input checked="" type="checkbox"/> MONTHLY <input 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.

Attached Sheet

14. WASTE DISPOSAL

a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED
Gulf Nuclear Inc. Any waste will be returned to Supplier

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:

No 15-16-17, Attached sheets,

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.

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)

b. CERTIFYING OFFICIAL (Signature)

c. NAME (Type or print)

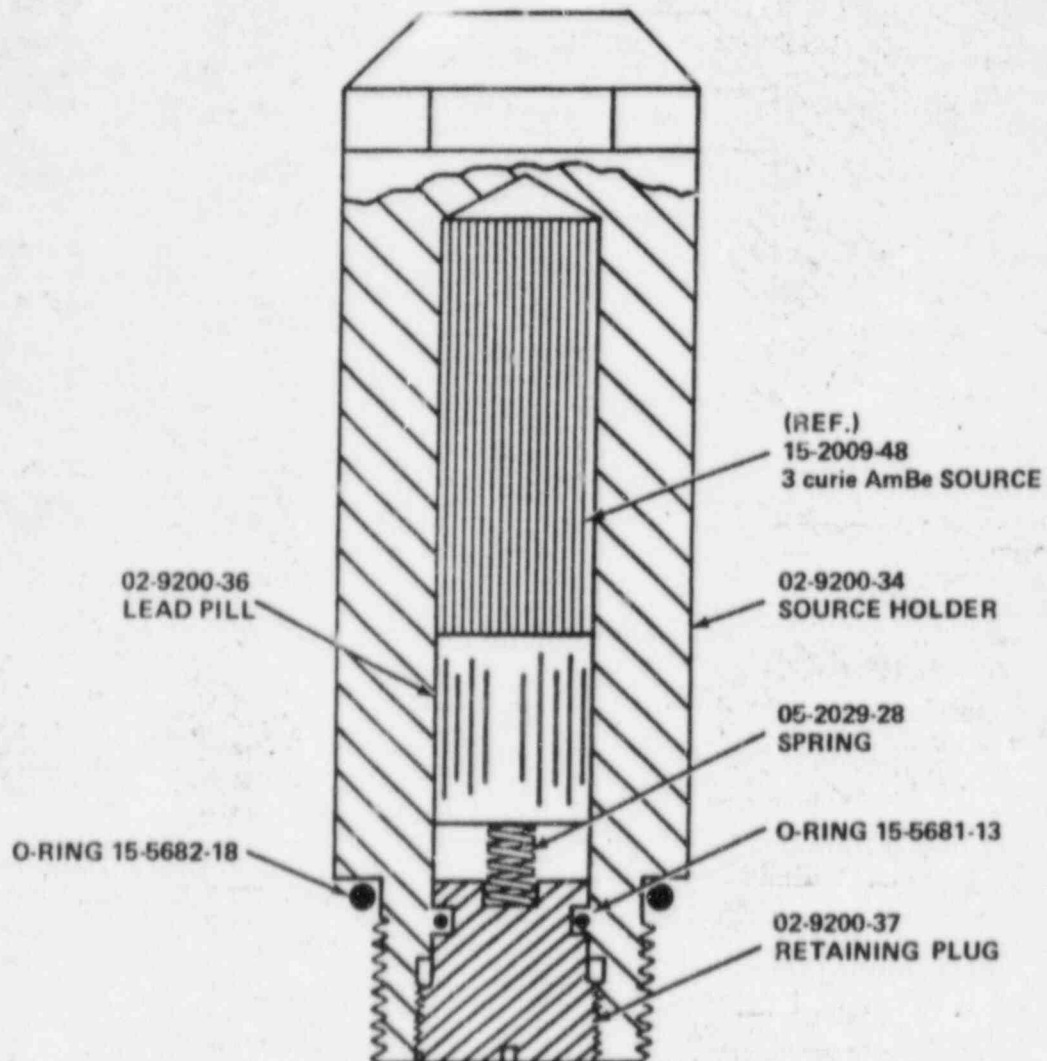
(1) LICENSE FEE CATEGORY:

d. TITLE

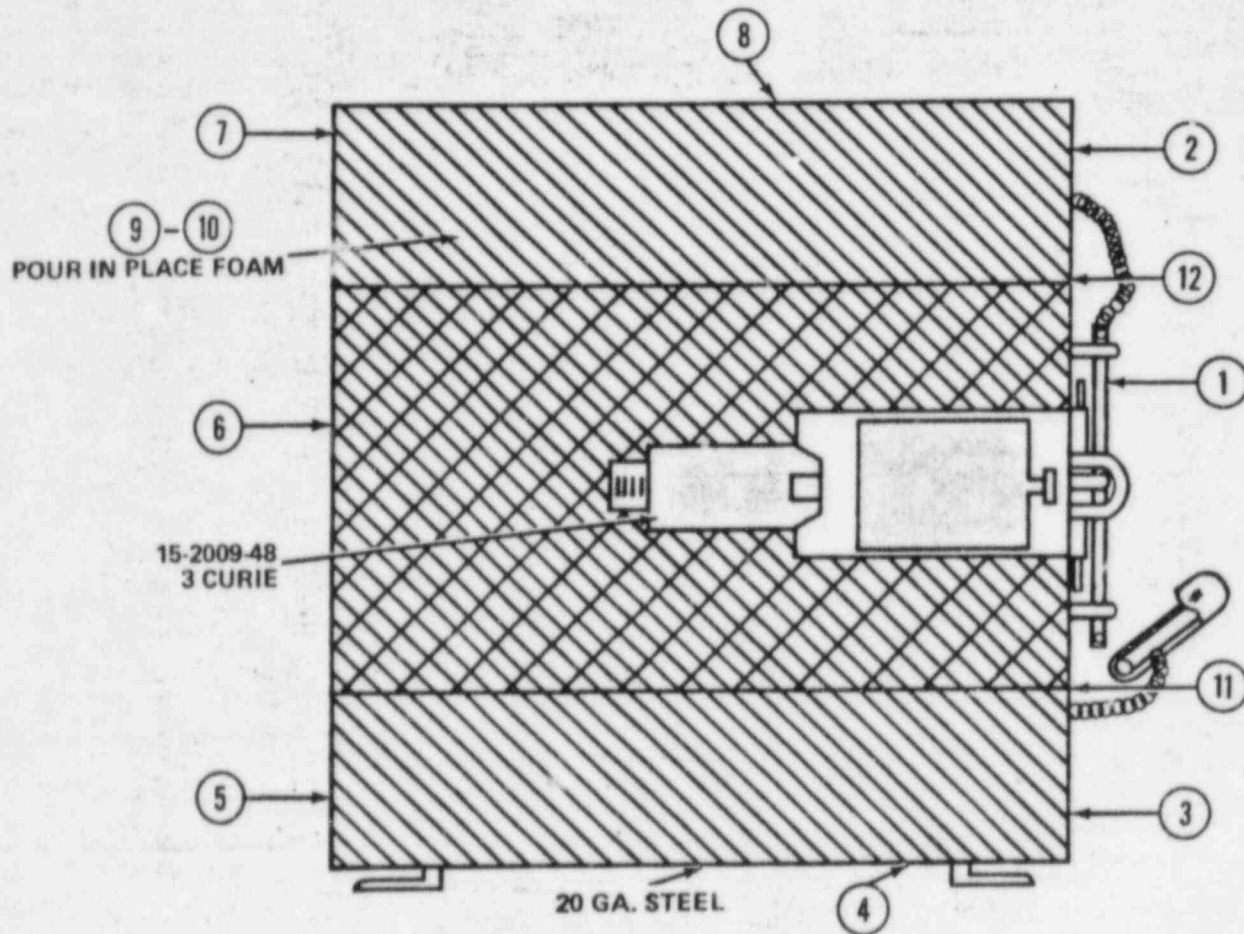
(2) LICENSE FEE ENCLOSED: \$

e. DATE

SOURCE HOLDER ASSEMBLY
3 curie AmBe SOURCE
02-9200-18

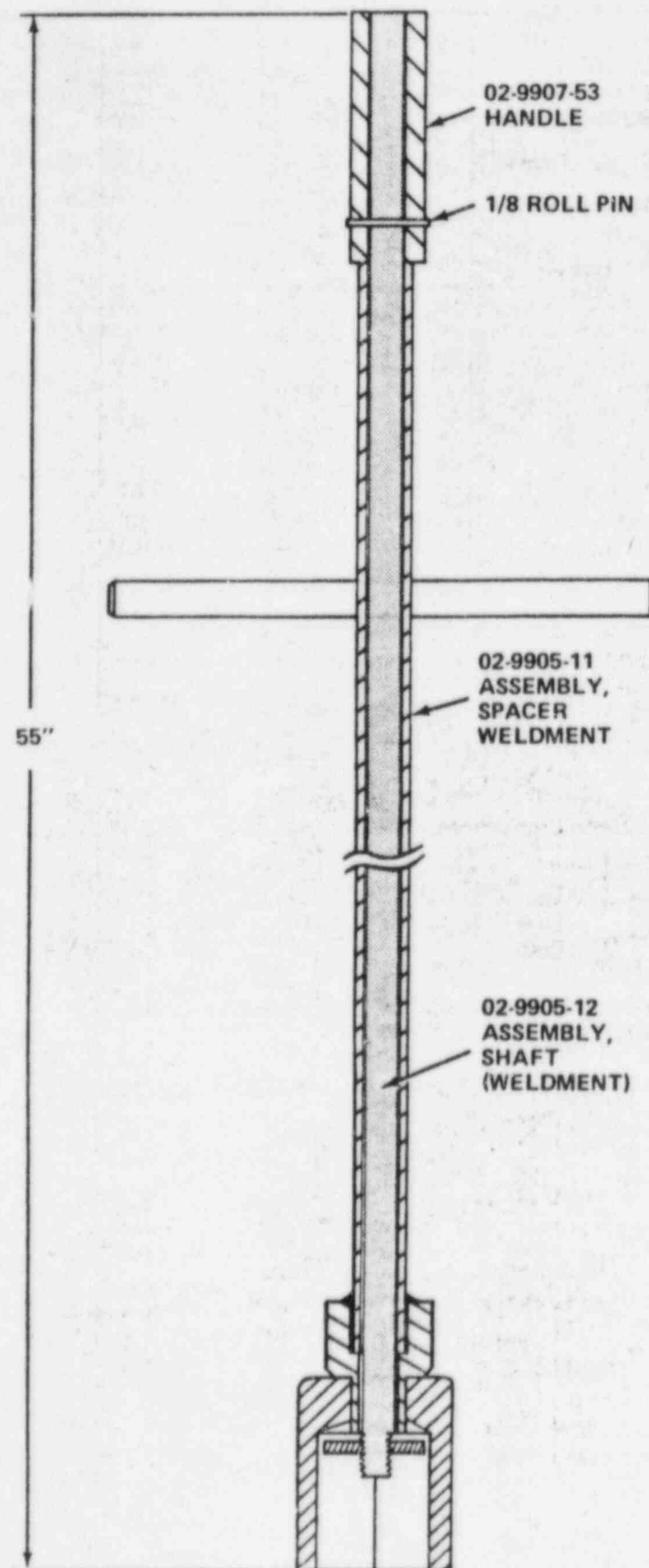


3 curie AmBe 241 SHIELD
D.O.T. - 7A
15-2011-03



NO.	NEUTRONS	GAMMA
1	40 MR/HR	1.0 MR/HR
2	20 MR/HR	1.0 MR/HR
3	40 MR/HR	1.0 MR/HR
4	48 MR/HR	2.0 MR/HR
5	32 MR/HR	1.2 MR/HR
6	44 MR/HR	1.8 MR/HR
7	32 MR/HR	1.3 MR/HR
8	48 MR/HR	2.0 MR/HR
9	48 MR/HR	2.0 MR/HR
10	48 MR/HR	2.0 MR/HR
11	48 MR/HR	2.0 MR/HR
12	48 MR/HR	1.8 MR/HR

SOURCE LOADING TOOL ASSEMBLY
F/1-11/16 SOURCE HOLDER - 3 curie AmBe 241
02-9907-10



04301

RADIOACTIVE MONITORING FORM NO. 100

Company _____ Well No. _____
 Field _____ County _____ State _____
 Operator _____ Servicemen _____
 Engineer _____ Rig Personnel _____
 Job Ticket No. _____ Quad Location _____
 Type Meter _____ Serial No. _____ Date Calibrated _____

MONITORING PROCEDURE BEFORE LEAVING SHOP Truck Loaded (Before Leaving Shop)

Background Count _____ mr/hr (50 feet clear of radioactive materials)
 Source No. _____ Isotope _____ Strength at 6 inches _____
 Source No. _____ Isotope _____ Strength at 6 inches _____
 Back Sign _____ Front Sign _____ Right Sign _____ Left Sign _____

MONITORING PROCEDURE BEFORE OPERATIONS BEGIN

Background Count _____ mr/hr
 Wellhead _____ mr/hr
 Neutron Handling Tool _____ Density Handling Tool _____
 Area where work is to be performed _____

MONITORING PROCEDURE AFTER OPERATIONS COMPLETE

Wellhead _____ mr/hr
 Neutron Handling Tool _____ Density Handling Tool _____
 Area where work is to be performed _____

ADDITIONAL (RIG) PERSONNEL

No. 1 _____ mr/hr
 No. 3 _____ mr/hr
 No. 5 _____ mr/hr
 No. 7 _____ mr/hr

ADDITIONAL (WITNESS) PERSONNEL

No. 2 _____ mr/hr
 No. 4 _____ mr/hr
 No. 6 _____ mr/hr
 No. 8 _____ mr/hr

Exact location of any significant contamination _____

 Steps taken to remedy _____

TRUCK MONITORING BEFORE LEAVING JOB SITE (LOADED)

Back Sign _____ Front Sign _____ Right Sign _____ Left Sign _____

TRUCK MONITORING AFTER UNLOADING AT SHOP

Back Sign _____ Front Sign _____ Right Sign _____ Left Sign _____

OPERATOR _____ DATE _____

NOTE: Make in duplicate (1) Attach to job sheet (2) Retain at office

MONTHLY VEHICLE SURVEY

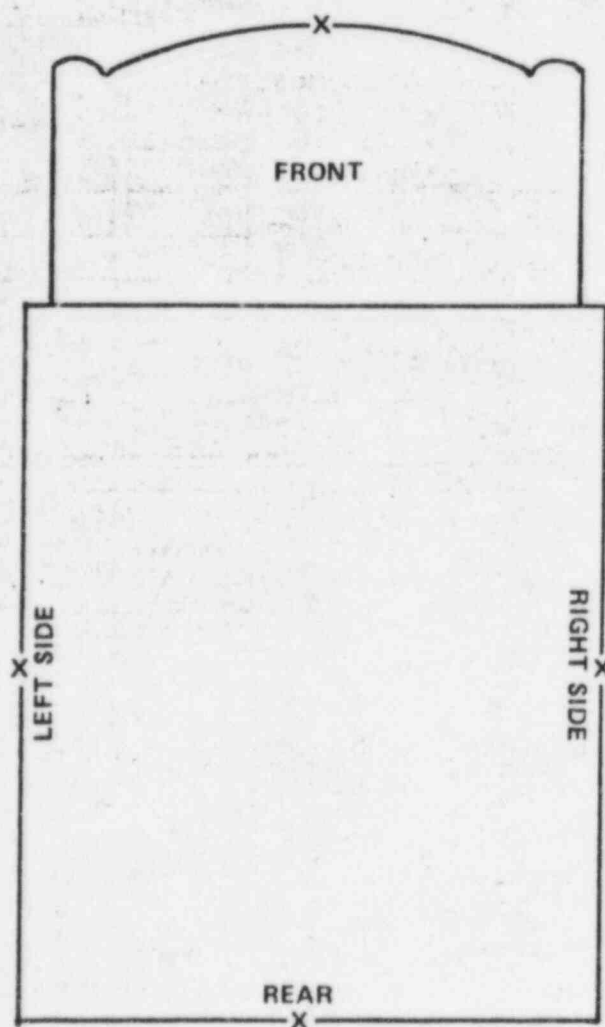
DATE _____

SURVEY METER IDENTIFICATION:

MANUFACTURER _____ SERIAL NO. _____

MODEL NO. _____

ALL READINGS IN MR/HOUR



SURVEY

FRONT _____ MR/HR

REAR _____ MR/HR

RIGHT SIDE _____ MR/HR

LEFT SIDE _____ MR/HR

X - DENOTES POSTING WITH
RADIOACTIVE SIGNS

OPERATOR

04901

UTILIZATION LOG

Month of _____ 19____

[illegible]

MASTER RECEIPT AND DISPOSAL LOG

ISOTOPE	PURCHASED FROM	SOURCE SERIAL NO.	DATE RECEIVED	ACTIVITY	DATE DISPOSED	LEAK TEST

#14 WASTE DISPOSAL

The means of disposal of the three curie Americium241 Beryllium source in the event it is no longer needed. The source will be shipped back to the supplier in an approved neutron source shield containing the following information:

CONTENT: AMERICIUM241BERYLLIUM

ACTIVITY: 2.7 CURIES

RADIATION FROM SOURCE SHIELD-UNDER 10 mr/hr.

Procedure to be followed in the event the source is lost and cannot be recovered from downhole conditions.

Safety Officer will survey area and give film badges to all persons within the restricted area. Then he will notify the well operator and all personnel working in area. Protection Officer will then notify State Health Department and the regional office of the Nuclear Regulatory Commission. This will be done immediately as possible after the loss has occurred.

There will be a reasonable attempt to recover the source from the well. In the event the source cannot be recovered, the well will be plugged off with cement or some other means as directed by the Nuclear Regulatory Commission. If this is the case the well will be permanently marked and have signs stating the amount, depth, type, and date of loss. The area around the well site will have appropriate radiation signs stating, Caution Radiation Area. Telephone number will be listed in case of emergency or if work is to be done in the area. The well will be checked every 6 months or anytime the Nuclear Regulatory Commission deems necessary with records kept in our file (RADIOACTIVE FILE).

ITEM 15. RADIATION PROTECTION PROGRAM

The radiation protection program of Sooner Pride Inc. is headed by two key personnel that are in charge of the overall management and safety of records and employees. They are the RADIATION PROTECTION OFFICER and the RADIATION SAFETY OFFICER.

The duties of the RADIATION PROTECTION OFFICER are to maintain **authority** over the complete radiation program. The duties include overall responsibility for records surveys, and the administrative procedures for the entire radiation program. The RADIATION PROTECTION OFFICER is Larry Hensley.

The RADIATION SAFETY OFFICER is responsible to the Radiation Protection Officer and in general is to conduct or cause to be conducted the programs set forth by the Radiation Protection Officer. These duties might include: Site surveys, records of all personal and vehicle monitoring and compliance. The RADIATION SAFETY OFFICER is Randall Bryant

LEAK TESTING FOR SEALED SOURCES

The Radiation Safety Officer will see that all sealed sources are checked for leakage at intervals not to exceed six months. The tests will be made with wipe kits furnished by Gulf Nuclear Inc. These kits will be sent to Gulf Nuclear Inc. Pharmaceuticals, for evaluation with the results kept on file in our records. The type of leak test kit is: LTK-1 furnished by GULF NUCLEAR Inc.

16. FORMAL TRAINING IN RADIATION SAFETY.

Larry Hensley-7 years Radiation logging experance with the handling of sealed sources for neutron logging in well bores. The job training was with Go. International, INC. and API Perforators Inc. THE iormal schooling was held in Houston Texas for three days and was given by Frank Malack with Gulf Nuclear, Inc. The schooling covered the Principals and practices of radiation protection. Radioactivity measurement standardization and monitoring techniques and instruments. Mathematics and calculations basic to the use and measurement of radioactivity. And the biological effects of radiation.

04901

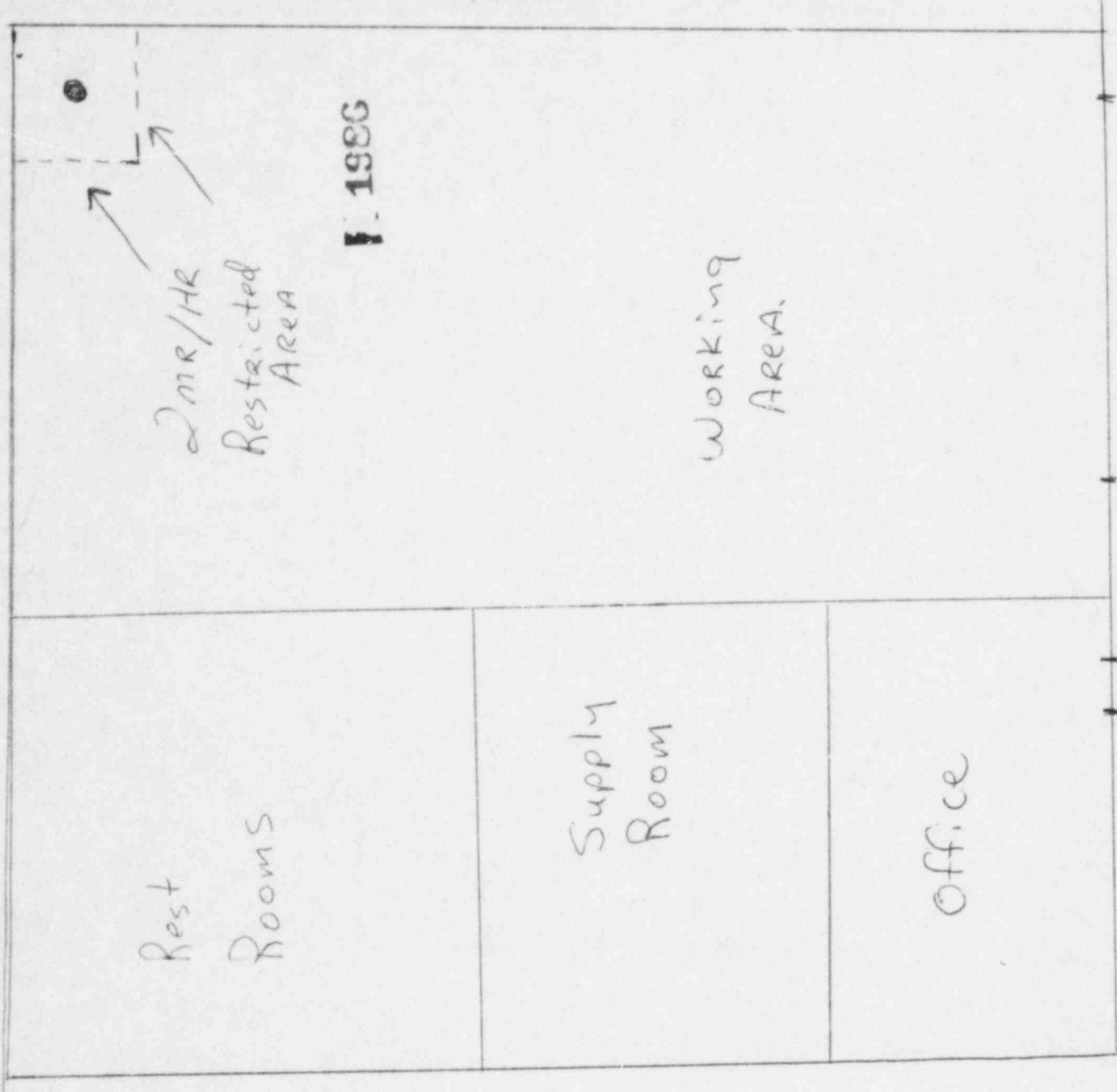
#17 EXPERIENCE

Larry Hensley 7- years Radiation logging experience with the handling of three curie AmBe241 sealed sources for gamma ray-neutron logging in well bores. The job training was with GO International Inc. and API Perforators INC. on temporary job sites in Oklahoma and Kansas. Also had 3 years experience taking site surveys, records of personal and vehicle monitoring and compliance. Also taking Leak Tests and filling leak test records.

Randall Briant- 2 years on the job experience with the handling of three curie AmBe241 sealed sources for gamma ray-neutron logging in well bores. Also on the job experience with the handling of a two curie gamma sealed source for logging in well bores. The job training was with Precision Logging and Perforating Inc. and API Perforators Inc. on temporary job sites in Oklahoma and Kansas. Also had some experience taking site surveys, records of personal and vehicle monitoring and compliance and the taking of leak tests.

South

West



1. 1986

2nr/HR
Restricted
Area

Working
Area.

Rest
Rooms

Supply
Room

Office

Overhead
Door
Locked

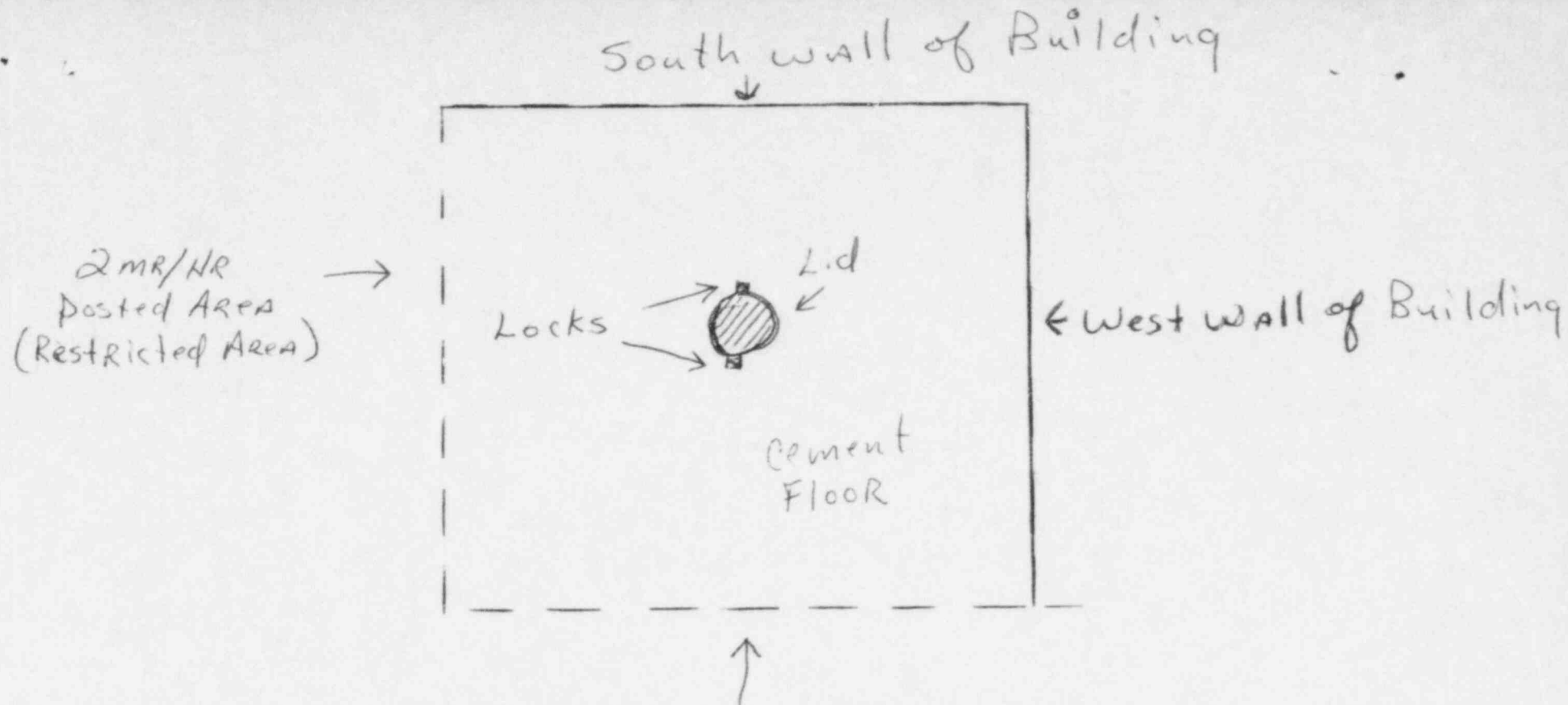
Door
Entrance

North

East

Shop Building
Location
Showing Source
Pit Area.

Larry Headley
President Sooner Trade Sec.
Inc.



1. Source pit is posted with Radioactive signs at 2MR/NR Lines

2MR/NR
Posted Area
(Restricted Area)

2. Source pit is locked with Two Locks securely.

3. Source pit is 4½ Inch Diameter pipe sealed & waterproof and cemented into the ground at a Depth of 3 feet.

4. No one shall Enter Restricted Area without a film Badge

5. Source will B2 handled only with A Gearhart Owen No 02-9007-10 Source loading tool (Approved).

President Larry Vesely
Sooner Pride Services Inc

#2 Larry Hensley has had formal training with Gulf Nuclear Inc. in July of 1980 under Frank Mallek. He will be physically present at all times when source is used and will oversee all operations. He is Sooner Pride's safety officer.

Leave Randall Bryant's name off of license as safety officer.

#3 OIL WELL LOGGING

Sooner Pride Services Inc. will use the 2.7 curie AmBe 241 source for oil and gas well logging only in Oklahoma and Kansas on tempory job sites. No water well (FRESH WATER) logging will be done with our source. When source is not in use, it will be kept in the shop in a locked pit as illustrated and a barrier will be placed at the 2 mR/hr line with signs stating Radioactive Area.