

APPLICATION FOR BYPRODUCT MATERIAL LICENSE
INDUSTRIAL

X

a. NEW LICENSE

See attached instructions for details.

b. AMENDMENT TO:
LICENSE NUMBER

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.

c. RENEWAL OF:
LICENSE NUMBER

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

GATX Terminals Corporation

3. NAME OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION

Joseph C. Thompson

TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION

(312) 621-6454

TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION

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

GATX Terminals Corporation
120 S. Riverside Plaza
Chicago, Illinois 60606

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

SEE ATTACHED SHEET

(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. Vidalito S. Lomahan

Project Engineer

b. Patrick K. Lee

Argo Terminal Project Engineer

c.

7. RADIATION PROTECTION OFFICER

See Attachment

Same as a, b,

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

SEE ATTACHED SHEETS

8. LICENSED MATERIAL

L I N E N O.	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
NO.	A	B	C	D
(1)	Cesium 137	Sealed	New England Nuclear Corp.	10 \pm mCi Ls 137
(2)	Americium 241	Source	Model No. Ner- 560A	And 55 \pm 5 MCi AM 241
(3)				
(4)				

DESCRIBE USE OF LICENSED MATERIAL
E

(1) Nuclear density meter model NIC-5DT for General Field Measurements of Moisture and Density.

(2)

(3)

(4)

8008130184
3 pp.

JUN 3 1980

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)	Nuclear Moisture Density Meter	Soiltest Incorporation	NIC-50T
(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	REQUIRED				
(2)						
(3)						
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

☐ a. CALIBRATED BY SERVICE COMPANY

NAME, ADDRESS, AND FREQUENCY

None required

☐ 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 checked="" type="checkbox"/> (1) FILM BADGE <input checked="" type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD) <input type="checkbox"/> (3) OTHER (Specify): _____ _____ _____	Nuclear Sources and Services Inc. Health and Physics Associates. P.O. Box 14023 Houston, Texas 77021 (Tel.) (713) 641-0391	<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.

 Fixed Storage Room
 SEE EXHIBIT A

14. WASTE DISPOSAL

a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED

Nuclear Sources Inc. Through Soiltest Inc.

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 DESCRIPTION

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. (NONE)

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)

Joseph C. Thompson

(1) LICENSE FEE CATEGORY: New License

d. TITLE
Manager of Engineering
and Construction

(2) LICENSE FEE ENCLOSED: \$ 110- Pd. previously

e. DATE

ATTACHMENT

Item #7

Mr. Patrick K. Lee, Argo Terminal Project Engineer, Bedford Park, Telephone 458-1330, would use this equipment NIC-5DT for moisture density test. He shall be the "radiation protection officer". He would do the control leak test every six months and mail to Nuclear Sources and Services Inc. Health and Physics Associates.

Mr. Vidalito S. Lomahan, Chicago Project Engineer-Professional Engineer 62-35507 would go to Soil Test Incorporation for in house job training for safe operation and handling NIC-5DT with Mr. P. K. Lee for same training.

Mr. V. S. Lomahan, and Mr. P. K. Lee's duty as control radiation officers:

- a) to assure that the by-product materials possessed under the license conform to the materials listed in the license
- b) To assure that the use of the device particularly in the field is only by the individual authorized by the license
- c) To assure that all users wear personnel monitoring equipment, such as film badges or thermoluminescence dosimeters (TLD) when required
- d) To assure that gauges are properly secured against unauthorized removal at all times when they are not in use
- e) To serve as a contact and give assistance in case of emergency (gauge damaged in field, fire, theft, etc.) to assure that proper authorities, for example, NRC, local police and State personnel notified promptly in case of accident or damage to the gauge
- f) To assure that the terms and conditions of the license such as periodic test, are met and that required records, such as personnel exposure records, leak test records, are reviewed for compliance with NRC regulation, requirements and license condition

Item #13

Storage for the meter NIC-5DT is a metal cabinet with padlock. Inside the metal cabinet is a 0.134 inch welded 14" cubical box with bottom plate welded to the floor cabinet. Only the radiation control officer has the key and nobody else. SEE EXHIBIT A

Item #15 Radiation Protection Program

Radiation Safety and Emergency Procedure:

- a) The equipment (NIC-5DT) is to be transported to the work area about half a mile from the storage, through a pick up, placed inside a 0.134 welded cubical box (14" x 14" x 14") away from the driver painted red in color and padlocked by the radiation control officer, who would use this equipment under his direction and returned to storage after closing time. If no pick up is available, the equipment would be transported to site about $\frac{1}{2}$ mile through a car and placed inside the trunk into the 0.134 welded metal box and padlocked.
- b) When the equipment is in the site and not being used it should be placed inside the 0.134 welded metal box and locked in the car/pick up.
- c) When the equipment is at the storage area it should always be placed in the 0.134 welded metal box and padlocked by the radiation control officer. The radiation control officer would have the key of the cubical box and nobody else.
- d) Emergency Procedures in Case of Accidents, Loss or Theft:
Mr. P. K. Lee, Argo Terminal, Bedford Park, Terminal Project Engineer, Tel. (312)458-1330, would call Mr. J. C. Thompson, Manager of Engineering and Construction, 120 S. Riverside Plaza, Chicago, Illinois 60606, Tel. (312)621-6454, who should be notified and who would in turn notify the local police, State personnel and the NRC (Tel. 312-932-2500)
- e) The applicant does not intend to repair the equipment (NIC-5DT)

Applicant desires to use leak test kit.

- a) Mr. Patrick K. Lee, Terminal Project Engineer at Argo and Vidalito S. Lomahan, Project Engineer, 120 S. Riverside Plaza, Chicago, Illinois 60606, a registered professional Engineer in Illinois 62-35507, tel. (312)621-6453, would go for training at Soiltest Incorporation, factory in principles and practices of radiation protection, for safe operation, storage, transportation, emergency handling procedures and leak test for one day as a condition before equipment is sold to applicant.
- b) Using health physics Leak Test Kit Model HP-C-18, leak test the unit every six months. The radiation control officer (P. K. Lee) will oversee the test and ensure that it is performed in accordance with the following procedure:
 - 1. Dissolve the detergent in the packet in a small amount of water.
 - 2. Remove swab from plastic container on the left and dip it into water solution and proceed to wipe the source container

according to the license requirements. Replace the swab in the plastic container where it was taken.

3. Remove the dry swab from the plastic container in the right and repeat the wipe process. DO NOT dip this swab in the detergent. Replace this swab in the plastic container from which it was removed in the kit.

Ensure that the swab are returned in the plastic containers from which they are removed. Information of the kit cover will be filled in and the test kit mailed to specified address.

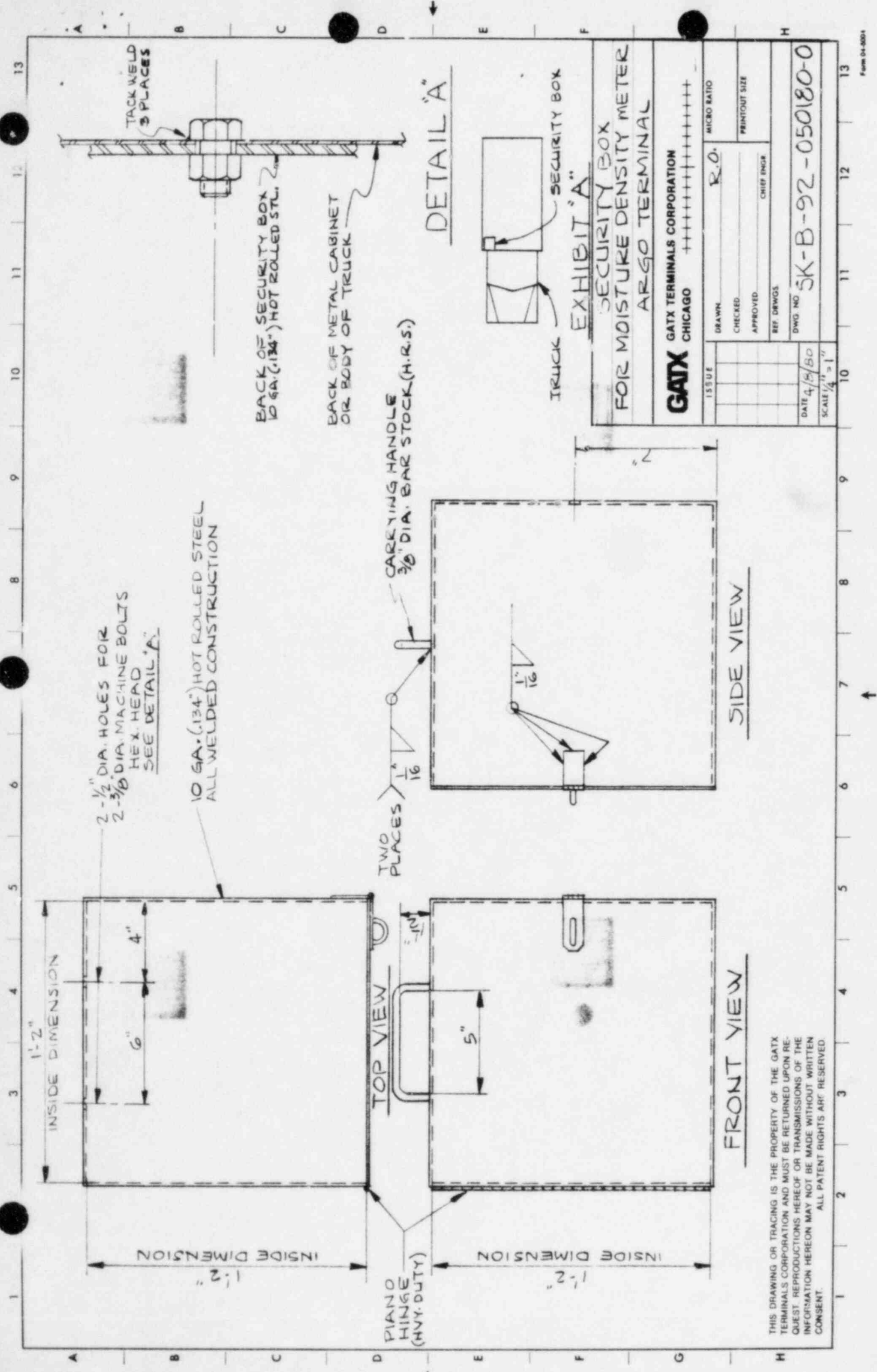
The training for the performance of the leak test will be from Soiltest Inc. Corporation, Evanston, Illinois, manufacturer of the meter.

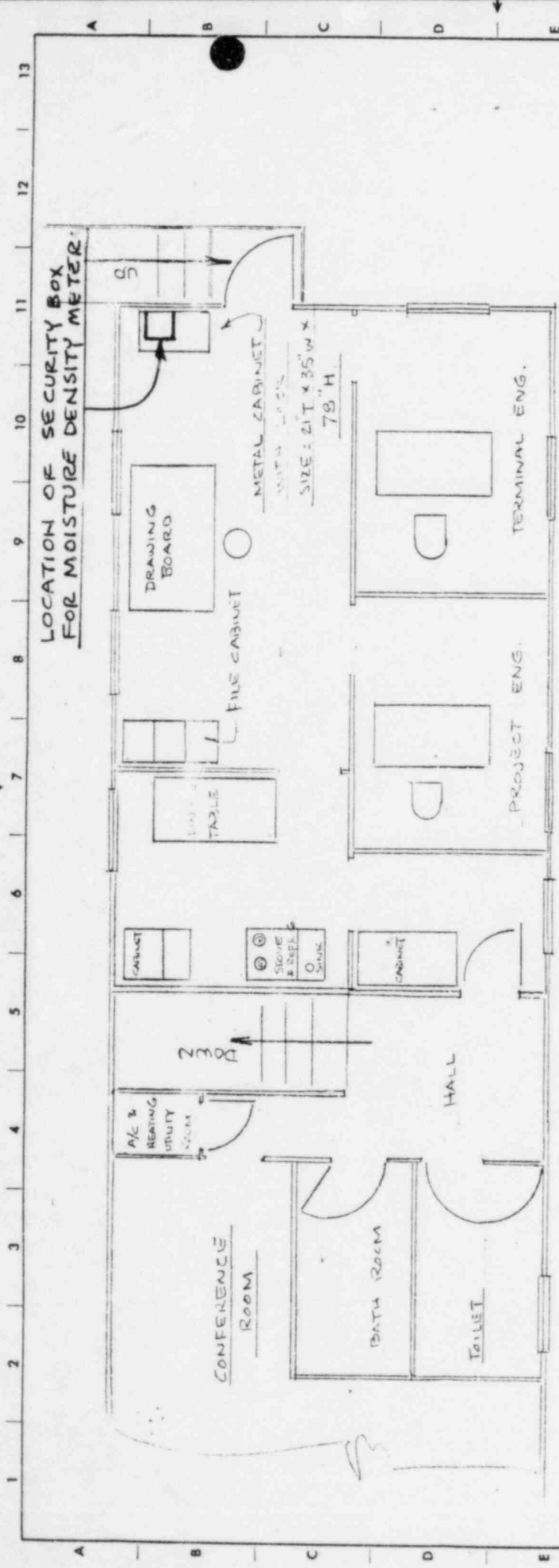
Item #16

Training will be at Soiltest Incorporation factory in principles and practice of radiation protection, safe operation storage, transportation, emergency, handling procedures and leak test. Duration of training, one day, on job training before equipment is sold to applicant.

Item #17

Experience of individual with radiation.





LOCATION OF SECURITY BOX
FOR MOISTURE DENSITY METER

METAL CABINET
SIZE: 21" T x 35" W x 78" H

NORTH

PLAN - ENGINEERING OFF.
SCALE 1" = 4'-0"

EXHIBIT "A"

PLAN - ENGINEERING OFFICE	
GENERAL AMERICAN TRANSPORTATION CORPORATION CHICAGO	
ISSUE	DRAWN: PKL
	CHECKED:
	APPROVED:
	REF. DESIGNS:
DATE: 4-3-80	DWG. NO. A-92-6-049
SCALE: 1" = 4'-0"	

THIS DRAWING OR TRACING IS THE PROPERTY OF THE GENERAL AMERICAN TRANSPORTATION CORPORATION AND MUST BE RETURNED UPON REQUEST. REPRODUCTIONS HEREOF OR TRANSMISSIONS OF THE INFORMATION HEREON MAY NOT BE MADE WITHOUT WRITTEN CONSENT. ALL PATENT RIGHTS RESERVED.