

APPLICATION FOR MATERIAL LICENSE **L&L 28251**

030-30709

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATIONS FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS
WASHINGTON, DC 20555

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS, IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIALS SAFETY SECTION B
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION II
NUCLEAR MATERIALS SAFETY SECTION
101 MARJETT STREET, SUITE 2900
ATLANTA, GA 30323

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION III
MATERIALS LICENSING SECTION
799 ROOSEVELT ROAD
GLEN ELLYN, IL 60137

ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
MATERIAL RADIATION PROTECTION SECTION
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TX 76011

ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION V
NUCLEAR MATERIALS SAFETY SECTION
1450 MARIA LANE, SUITE 210
WALNUT CREEK, CA 94596

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.

1. THIS IS AN APPLICATION FOR (Check appropriate item)

- ☒ A. NEW LICENSE
☐ B. AMENDMENT TO LICENSE NUMBER _____
☐ C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip Code)

Donohue & Associates, Inc.
4738 North 40th Street
Sheboygan, WI 53081

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED.

Various project locations throughout the State of Pennsylvania

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Pamela B. Markelz

TELEPHONE NUMBER

414-458-8711

SUBMIT ITEMS 5 THROUGH 11 ON 8 1/2 x 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL

a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSEE FEES (See 10 CFR 170 and Section 170.31)

FEE CATEGORY 3P AMOUNT ENCLOSED \$ 230.00

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN, IS TRUE AND CORRECT TO THE BEST OF THEIR 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.

SIGNATURE - CERTIFYING OFFICER

TYPED/PRINTED NAME

TITLE

DATE

Richard Fedler

Richard Fedler

Vice President/Associate

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REG1 LIC30

PDR

FOR NRC USE ONLY

TYPE OF FEE APP	FEE LOG Aug. 17	FEE CATEGORY 3P	COMMENTS <i>No refund due - voided after review</i>	APPROVED BY <i>S. Kimbly</i>
AMOUNT RECEIVED \$230	CHECK NUMBER 159015	15 JUL 1988		DATE 8/3/88

"OFFICIAL RECORD COPY"

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APPLICATION FOR MATERIAL LICENSE
STATE OF PENNSYLVANIA

Item 5 - Radioactive Material

Sealed source employed in Troxler Model 3400 Series surface moisture/density gauge:

<u>Radionuclei</u>	<u>Form</u>	<u>Troxler Drawing #</u>	<u>Maximum Amount</u>
Cs-137	Special Form	A-102112	Not to exceed 10 mCi per source
Am-241:Be	Special Form	A-102451	Not to exceed 50mCi per source

Item 6 - Purpose for Which Licensed Material Will be Used

Gauging device used for determination of moisture content and density of soils, soil-stone aggregate, cement, asphalt treated bases, and asphalt paving.

Item 7 - Individuals Responsible for Radiation Safety Program--
Their Training and Experience

Pamela Markelz

- ° Responsible for the development and implementation of Donohue's Corporate Health and Safety Program. This includes establishing health and safety protocols that follow USEPA guidelines and OSHA Health and Safety Standards for personnel involved with hazardous waste site investigations.

- ° Completed EPA equivalent 40 hour Toxic and Hazardous Waste Safety Training Course, September, 1984, conducted by GeoEnvironmental Consultants, Inc. The course, presented by Steven P. Maslansky, included a section on radiological hazards and radiological safety.
- ° Ms. Markelz completed the Troxler Nuclear Gauge Training Course which is designed to qualify nuclear gauge operators and radiation safety officers.

Cathy Fruehe

- ° Ms. Fruehe completed the Troxler Nuclear Gauge Training Course which is designed to qualify nuclear gauge operators and radiation safety officers
- ° Completed EPA equivalent 40 hour Toxic and Hazardous Waste Safety Training Course, January 1987 conducted by National Water Well Association. Course included a section on radiological hazards and radiological safety.

Item 8 - Training Provided to Other Users

Each operator that has not completed the Troxler Nuclear Gauge Training Course, will complete the training course before being permitted to use the device. The persons listed in Items 4 and 7 will keep a copy of each individual's training certificate on file.

Item 9 - Facilities and Equipment

When not in use, the equipment will be stored in a locked enclosure located in an existing storage facility (see attached drawing). The keys to the storage room will be kept by the

Radiation Safety Officer to ensure against unauthorized removal of the equipment. The nearest occupied area is the Donohue Analytical laboratory, which is in the west half of the building and located more than 30 feet away from the storage room. Except while in locked storage, the equipment shall remain under the direct control of the individual operator.

Item 10 - Radiation Safety Program

Donohue & Associates, Inc., will conduct a radiation safety program in accordance with (1) the statements, representations, and procedures contained in this application, (2) the terms and conditions of the license, and (3) the Nuclear Regulatory Commission's regulations. A copy of the Donohue Radiation Safety Program is attached.

Item 11 - Waste Management

Disposal of the gauge will be by transfer to another licensed user, a licensed burial ground, or back to the original supplier.

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee

1. Donohue & Associates, Inc.

3. License number 48-18608-02

2. 4738 North 40th Street
Sheboygan, WI 53801

4. Expiration date September 30, 1990

5. Docket or
Reference No. 030-223186. Byproduct, source, and/or
special nuclear material7. Chemical and/or physical
form8. Maximum amount that licensee
may possess at any one time
under this license

A. Cesium-137

A. Sealed source
(Troxler Dwg. No.
A-102112)A. No single source
to exceed 10
millicuries

B. Americium-241

B. Sealed source
(Troxler Dwg. No.
A-102451)B. No single source
to exceed 50
millicuries

9. Authorized Use

A. and B. To be used in Troxler Series 3400 moisture/density gauge to measure
moisture/density of construction materials.★ ★ ★ ★ ★
CONDITIONS

10. Licensed material may be used at the licensee's facilities located at 4738 North 40th Street, Sheboygan, Wisconsin and at temporary job sites of the licensee anywhere in the United States where the U. S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material.
11. The licensee shall comply with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports to Workers; Inspections" and Part 20, "Standards for Protection Against Radiation."
12. Licensed material shall be used by, or under the supervision and in the physical presence of, individuals who have satisfactorily completed the device manufacturer's training program for gauge users and have been designated by the licensee's Radiation Protection Officer. The licensee shall maintain records of the individuals who have been designated as authorized users.

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MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

48-18608-02

Docket or Reference number

030-22318

13. A. Each sealed source containing licensed material, other than Hydrogen 3, with a half-life greater than thirty days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed six months. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, a sealed source received from another person shall not be put into use until tested.
- B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.
- C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within five (5) days of the test with the U. S. Nuclear Regulatory Commission, Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137, describing the equipment involved, the test results, and the corrective action taken.
- D. The licensee is authorized to collect leak test samples in accordance with the procedures described in the licensee's application dated August 19, 1985 for analysis by Troxler Electronics. Alternatively, leak test samples may be collected and/or analyzed by other persons specifically authorized by the Commission or an Agreement State to perform such services.
14. Sealed sources containing licensed material shall not be opened or removed from the moisture/density gauge by the licensee.
15. The licensee shall conduct a physical inventory every six (6) months to account for all gauges received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of the gauges and the date of the inventory.
16. The licensee may transport licensed material or deliver licensed material to a carrier for transport in accordance with the provisions of Title 10, Code of Federal Regulations, Part 71, "Packaging of Radioactive Material for Transport and Transportation of Radioactive Material Under Certain Conditions."

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

48-18608-02

Docket or Reference number

030-22318

17. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in application dated August 19, 1985. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.



For the U.S. Nuclear Regulatory Commission

Original Signed

By William J. Adam, Ph.D.

Materials Licensing Section, Region III

Date August 27, 1985

COPY

RADIATION SAFETY PROGRAM

1. Radiation Safety Officers

A. Pamela Markelz and Cathy Fruehe have been designated as the company Radiation Safety Officers and will assume the duties and responsibilities that include the following:

- 1) To ensure that all terms and conditions of the license are being met and that the information contained in the license is up-to-date.
- 2) To ensure that the equipment has been leak tested in the required timely manner and that the leak test is performed in the manner prescribed by the equipment manufacturer.
- 3) To ensure that the use of the equipment is only by individuals that have been authorized by the Radiation Safety Officer and that all users wear personnel monitoring device when utilizing the equipment.
- 4) To maintain the records as required by the license and the regulations. These records shall include personnel exposure records, leak test records, and training certificates for all users.
- 5) To ensure that the equipment is properly secured against unauthorized removal at all times when it is not in use.
- 6) To serve as a point of contact and give assistance in case of emergency such as equipment damaged in the field or theft and to notify the proper authorities in case of emergency.
- 7) To ensure that all users have read and understand the radiation safety operating and emergency procedures.

2. Operating Procedures

A. Transportation of Equipment:

- 1) All possible means shall be provided to ensure that the equipment is fully secured in the transporting vehicle and the equipment is away from the passenger compartment. When transporting in an

enclosed vehicle (car or van), the vehicle will be locked. When transporting in an open bed vehicle, the gauge should be securely fastened and locked to the truck bed.

- 2) The gauge will be transported in the TROXLER transportation case. The U.S. Department of Transportation requires that the gauge be transported in a properly labeled carrying case.
- 3) At all times during transport, the operator will have a properly completed Bill of Lading for each gauge.

B. Utilization Procedures:

- 1) When the gauge is in the field, the operator as the authorized user must maintain control over the gauge at all times. The gauge must never be left unattended.
- 2) When not making measurements, the gauge should be placed in the transportation case and returned to its permanent storage area as soon as possible. The gauge is to be used for its intended purpose only. By doing so, the operator will maintain any radiation exposure to as low as reasonably attainable.
- 3) When using the equipment, the operator will wear the assigned personnel monitoring device. When the operator is not using the equipment, the monitoring device is to be stored in the radiation free area that has been designated in the office.

C. Maintenance and Leak Test Procedures:

- 1) Periodic maintenance will include cleaning the gauge. During any maintenance, the operator must wear the personnel monitoring device.
- 2) No maintenance will be performed in which the radioactive source is removed from the gauge. For this type of maintenance, the gauge will be returned to the manufacturer.
- 3) The leak test will be performed using the TROXLER Model 3880 Leak Test Kit. The leak test will be performed using the manufacturer's instructions. Again, the personnel monitoring device will be employed. Gauges will be leak tested at intervals not to exceed six months.

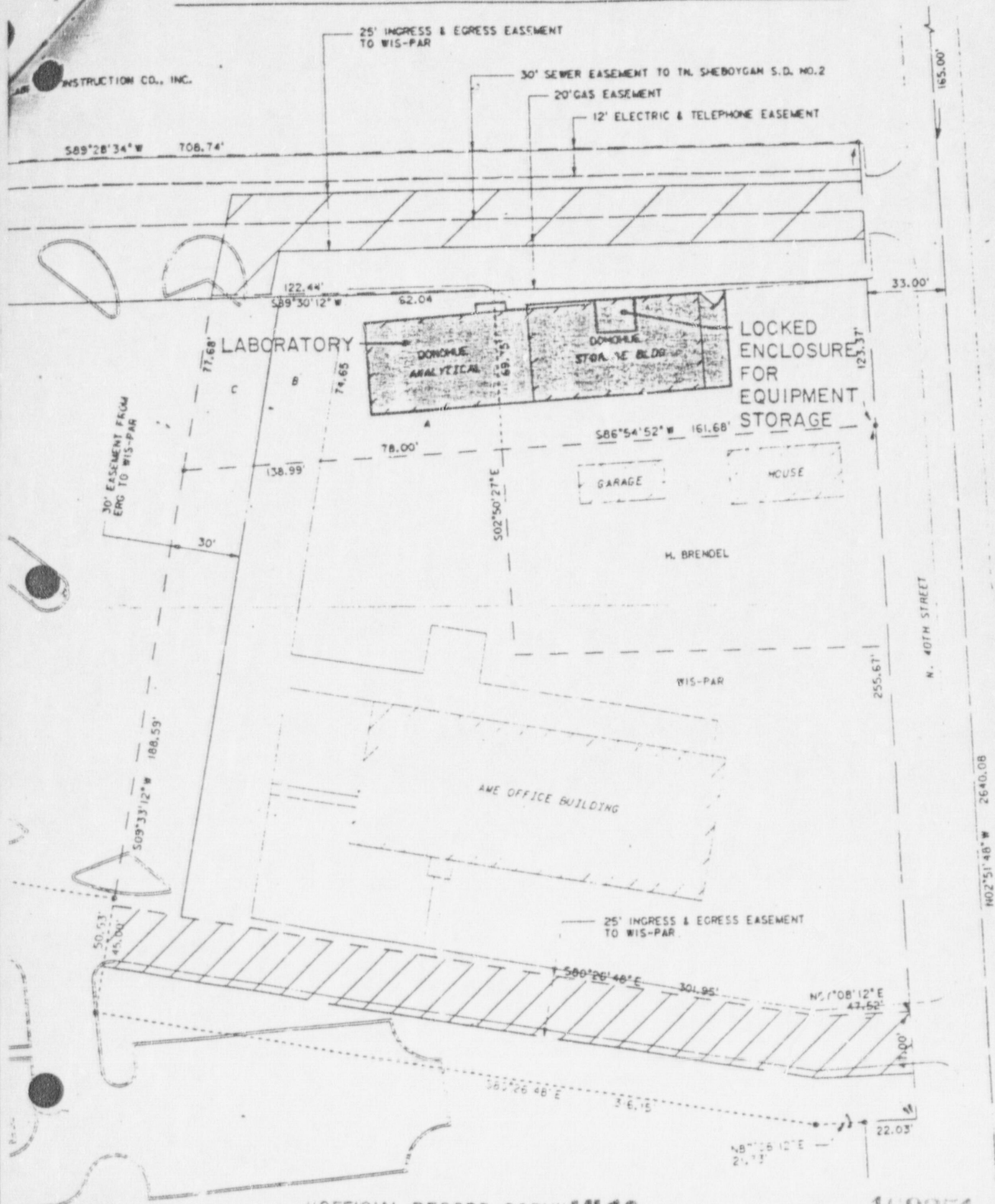
3. Emergency Procedures

A. In the event of physical damage to a gauge, the following will be performed:

- 1) Immediately cordon off an area around the gauge. An area radius of 15 feet will be sufficient.
- 2) If a vehicle is involved, it must be stopped until the extent of contamination, if any, can be established.
- 3) A visual inspection of the gauge is to be made to determine if the source housing and/or shielding has been damaged.
- 4) At the earliest possible time, when the situation is under control, the operator must contact Pamela Markelz or Cathy Fruehe at 414-458-8711. Describe the present conditions and follow the instructions of the Radiation Safety Officer.

B. In the event the gauge is lost or stolen, immediately notify the Radiation Safety Officer as listed above in Item 3.A.4.

STORAGE FACILITIES FOR NUCLEAR DENSITY METERS



"OFFICIAL RECORD COPY" ML10

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