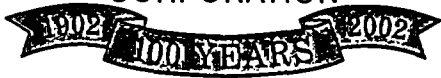


THE  
**LANE**  
CONSTRUCTION  
CORPORATION



A Commitment to Excellence

RECEIVED  
REGION 1

965 East Main Street  
Meriden, CT 06450-6004  
203-235-3351  
203-237-4260 Fax  
www.laneconstruct.com

'05 MAY -2 P 1 :41

April 25, 2005

Licensing Assistant Section  
Nuclear Materials Safety Branch  
U.S. Nuclear Regulatory Commission, Region I  
475 Allendale Road  
King of Prussia, Pa 19406-1415

Re: License Number <sup>03015231</sup> 06-06284-02 – Amendment to Radiation Safety Program

Attached herewith for your approval, please find proposed amendment to The Lane Construction Corporation's Radiation Safety Program Operating and Emergency Instructions for Nuclear Density Gauges.

Proposed amendment to read as follows:

**VI. RADIATION EXPOSURE MONITORING:**

1. When using the gauge, the authorized user must wear a radiation film badge. This badge (TLD Dosimeter) will measure X-ray, Gamma and Beta radiation exposure to the user. The badges will be obtained from and evaluated after exposure by Landauer, Inc., Glenwood, Illinois. Any exposure in excess of 5,000 mREM per year for the whole body, 50,000 mREM per year for the extremities and skin, or 15,000 mREM per year for the eyes, will be cause to remove the exposed individual from gauge use, to be evaluated by medical personnel, and to be reported to the governing agency. Exposure to a declared pregnant woman must not exceed 500 mREM for the nine-month period of pregnancy. Occupational exposure to workers under the age of 18 is restricted to 1/10 of the adult annual exposure. These limits apply only to occupational exposure. Badges will be exchanged and evaluated quarterly during use. When not using the equipment, the badge must be stored in a radiation-free area.

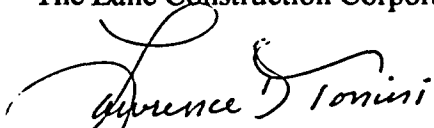
An Equal Opportunity Employer M/F

136 994  
NMSS/RGNI MATERIALS-002

For your convenience, attached please find complete copy, as amended, of our Radiation Safety Program Operating and Emergency Instructions for Nuclear Density Gauges.

Very truly yours,

The Lane Construction Corporation

A handwritten signature in cursive script that reads "Lawrence D. Tonini". The signature is written in black ink and is positioned above the printed name.

Lawrence D. Tonini

Assistant Safety Manager / RSO

Cc: file

**RADIATION SAFETY PROGRAM  
OPERATING AND EMERGENCY INSTRUCTIONS  
FOR NUCLEAR DENSITY GAUGES**

**I. CORPORATE INFORMATION:**

The Lane Construction Corporation  
965 East Main Street  
Meriden, CT 06450  
Radiation Safety Officer: Lawrence D. Tonini

**II. NUCLEAR DENSITY GAUGES:**

We utilize Troxler Electronic Laboratories, Inc., Series 3400 portable moisture/density gauges, Series 4640 asphalt density gauges, and Series 3200 asphalt content gauges and a Seaman Nuclear Corporation C-200 portable moisture density gauge. Radioactive materials involved are Cesium 137, Americium 241 and Radium 226.

**III. STORAGE:**

Permanent storage locations have been designated as:

965 East Main Street, Meriden, Connecticut (Corporate Headquarters)  
3 Priestley Rd., Bridgeville, Pa 15017  
5601 Courtney Ave., Alexandria, Va 22304 (dba / Virginia Paving Co., Div.)  
1003 Old Ox Rd., Sterling, Va 20167 (dba / Virginia Paving Co., Div.)  
1012 Garrisonville Rd., Stafford, Va 22555 (dba / Virginia Paving Co., Div.)

and at temporary jobsites anywhere in the United States. Additionally, in those states having their own jurisdictional authority over the use of this material, storage locations are as identified in license applications for those states.

Troxler gauges will be kept in a locked box or cabinet, within a locked building or otherwise secure container such as a storage trailer. There must be a minimum of two locks in combination as security. "Radioactive" and "employee notice" posters must be posted.

#### **IV. TRANSPORTATION:**

The gauge will be transported in the Troxler transportation case at all times. The equipment must be secured in a locked box permanently affixed to the vehicle in the case of a pickup truck or other truck types, or within the locked trunk of a passenger car, secured against movement. A chain and lock system is also permitted for transportation in pickup trucks for short trips. At all times during transport, the operator must have a properly completed Bill of Lading for each gauge. Additionally, a copy of the DOT Emergency Response Information must be in the vehicle.

#### **V. UTILIZATION PROCEDURES:**

1. When the gauge is in the field, the authorized user must maintain control of the gauge at all times. The gauge must never be left unattended.
2. Gauges will only be used by or under the supervision and in the physical presence of, individuals who have satisfactorily completed the Troxler Electronics Laboratories, Inc., training and who hold valid certificates of training.
3. All users must be thoroughly familiar with these operating and emergency instructions.
4. 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, any radiation exposure will be as low as reasonably achievable (ALARA). The Lane Construction Corporation is committed to assuring ALARA exposures and will implement all recommendations made by the gauge manufacturer to achieve this purpose.
5. When using the gauge, unauthorized persons must be kept at least 15 feet from the gauge.

#### **VI. RADIATION EXPOSURE MONITORING:**

1. When using the gauge, the authorized user must wear a radiation film badge. This badge (TLD Dosimeter) will measure X-ray, Gamma and Beta radiation exposure to the user. Film badges will be obtained from and evaluated after exposure by Landauer, Inc., Glenwood, Illinois. Any exposure in excess of 5,000 mREM per year for the whole body, 50,000 mREM per year for the extremities and skin, or 15,000 mREM per year for

the eyes, will be cause to remove the exposed individual from gauge use, to be evaluated by medical personnel, and to be reported to the governing agency. Exposure to a declared pregnant woman must not exceed 500 mREM for the nine-month period of pregnancy. Occupational exposure to workers under the age of 18 is restricted to 1/10 of the adult annual dose. These limits apply only to occupational exposure. Badges will be exchanged and evaluated quarterly during use. When not using the equipment, the badge must be stored in a radiation-free area.

2. Badges must also be worn during maintenance of the gauge and during leak testing.

#### **VII. MAINTENANCE AND LEAK TESTING:**

1. Maintenance procedures will follow the manufacturer's recommendations. No maintenance will be performed which involves removal of the source from the gauge.
2. Troxler Electronics Laboratories, Inc. will perform all service work beyond normal routine maintenance provided for in the manufacturer's instructions.
3. Film badges must be worn during cleaning, leak testing, and other maintenance of the gauge.
4. Leak tests will be performed every six months, unless the gauge has not been used in the preceding six months, using the Troxler Model 3880 Leak Test Kit. The gauge may not be used if it has been in storage in excess of six months until such time as it has been leak-tested and results have been received.

#### **VIII. UTILIZATION LOG:**

Utilization logs will be maintained at each location in possession of a gauge. The log must be capable of identifying the location of each gauge at all times and in whose possession it is. Logs must show:

1. Model and Serial Number
2. Date and Time Removed and Returned
3. User
4. Destination
5. Signature of User

## **IX. AUDITS**

The corporate RSO, or his designee, who has oversight responsibilities for both state and federal radiation programs, will conduct a management audit every 12 months.

## **X. EMERGENCY PROCEDURES:**

1. In the event of physical damage to the gauge, the following steps must be taken:
  - a. Locate the source.
  - b. An area of 15 feet in radius from the gauge must be cordoned off and entry of unauthorized persons prevented.
  - c. If a vehicle is involved, it must not be moved until the extent of contamination has been determined.
  - d. A visual inspection of the gauge must be made to determine whether any damage to the source housing or shield has been sustained.
  - e. As soon as possible, after the situation has been established, notify Lawrence D. Tonini at (203) 235-3351 (cell (413) 329-1700). Instructions will be given regarding procedures and further notification. If the situation involves an emergency during transportation, emergency assistance and information will be provided by Troxler at (919) 549-9539.
2. In the event that the gauge is lost or stolen, L.D. Tonini must be notified immediately.

## **XI. SHIPPING:**

Shipping of gauges must follow all applicable regulations. Federal Express or Yellow Freight Lines will be used. Due to the infrequency of gauge shipment by outside personnel, the person performing the shipment should contact L.D. Tonini for information regarding proper transportation methods, or, in the event that the gauge is being shipped back to Troxler, personnel at Troxler Electronics Laboratories should be contacted concerning proper documentation.

## **XII. TRANSFERS:**

Inventory cards must reflect all moves and will be verified every six months. Prior to transfer, L.D. Tonini must be notified. If being transferred

to an Agreement State, the appropriate agencies will be notified in order to obtain a materials license, or reciprocity, depending on the need.

### **XIII. DISPOSAL:**

Disposal will be handled solely by Troxler Electronics Laboratories, Inc. or Seaman Nuclear Corporation.

### **XIV. RESPONSIBILITY:**

Each user is responsible for the proper use of the gauges and must follow the above procedures at all times.

The radiation safety officer, L.D. Tonini, is responsible for assuring overall compliance with these procedures and for maintaining current knowledge of all applicable rules and regulations.

**TROXLER NUCLEAR GAUGE EMERGENCY RESPONSE INFORMATION**  
**REQUIRED FOR TRANSPORTATION**  
(Reference DOT P5800.5 ERG93, and 49CFR)

**1. PROPER SHIPPING NAME:**

- ❖ RADIOACTIVE MATERIAL, SPECIAL FORM, NON-FISSILE/FISSILE EXCEPTED, 7 UN3332

**POTENTIAL HAZARDS**

**2. HEALTH HAZARDS**

- ❖ Radiation presents minimal risk to lives of persons during transportation accidents.
- ❖ Undamaged packages are safe; damaged packages or materials released from packages can cause external radiation hazards. Contamination is not suspected.
- ❖ Packages (cartons, boxes, drums, articles, etc.) identified as "Type A" by marking on packages or by shipping papers contain non-life endangering amounts. Radioactive sources may be released if packaged are damaged in moderately-severe accidents.
- ❖ Packages (large and small, usually metal) identified by "Type B" by marking on packages or by shipping papers contain potentially life endangering amounts. Because of design, evaluation, and testing of packages, life-endangering releases are not expected in accidents except those of utmost severity.
- ❖ Commonly available instruments can detect most of these materials.
- ❖ Water from cargo fire control is not expected to cause pollution.

**3. FIRE OR EXPLOSION**

- ❖ Packaging can be consumed without content loss from sealed source capsule.
- ❖ Radioactive source capsules and Type B packages are designed to withstand temperatures of 1475 °F (800 °C).

**EMERGENCY ACTION**

**4. IMMEDIATE PRECAUTIONS**

- ❖ Priority response actions may be performed before taking radiation measurements.
- ❖ Priorities are life saving, control of fire and other hazards, and first aid.
- ❖ Isolate hazard area and deny entry. Notify Radiation authority of accident conditions.
- ❖ Delay final cleanup until instruction or advice of Radiation Authority.
- ❖ Positive pressure self-contained breathing apparatus (SCBA) and structural firefighter's protection clothing will provide adequate protection against internal radiation exposure, but not external radiation exposure.
- ❖ Call Troxler Electronic Laboratories, Inc. at (919) 549-9539 for Emergency Assistance.

**5. FIRE**

- ❖ Do not move damaged packages; move undamaged packages out of fire zone.
- ❖ **Small Fires:** Dry chemical, CO<sub>2</sub> water spray or regular foam.
- ❖ **Large Fires:** Water spray, fog (flooding amounts).

**6. SPILL OR LEAK**

- ❖ Do not touch damaged packages or spilled material.
- ❖ Slightly damaged or damp outer surfaces seldom indicate failure of inner container.
- ❖ If source is identified as being out of package, stay away and await advice from Radiation Authority.

❖

**7. FIRST AID**

- ❖ Use first aid treatment according to the nature of the injury.
- ❖ Persons exposed to special form sources are not likely to be contaminated with radioactive material.
- ❖ Report all incidents to L.D. Tonini at (203) 235-3351, Ext 252. (Cell (413) 329-1700)



This is to acknowledge the receipt of your letter/application dated

4/25/2005, and to inform you that the initial processing which includes an administrative review has been performed.

Amendment 06-06284-02  
There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number 136994.  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.

(FOR LFMS USE)  
INFORMATION FROM LTS

BETWEEN:

License Fee Management Branch, ARM  
and  
Regional Licensing Sections

:  
:  
:-----  
:  
:  
: Program Code: 03121  
: Status Code: 0  
: Fee Category: 3P  
: Exp. Date: 20141130  
: Fee Comments: \_\_\_\_\_  
: Decom Fin Assur Reqd: N  
:.....

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

Applicant/Licensee: LANE CONSTRUCTION CORPORATION (THE)  
Received Date: 20050502  
Docket No: 3015231  
Control No.: 136994  
License No.: 06-06284-02  
Action Type: Amendment

2. FEE ATTACHED

Amount: \_\_\_\_\_  
Check No.: \_\_\_\_\_

3. COMMENTS

Signed Rebecca J. Ford  
Date 5/12/05

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /\_/)

1. Fee Category and Amount: \_\_\_\_\_

2. Correct Fee Paid. Application may be processed for:

Amendment \_\_\_\_\_  
Renewal \_\_\_\_\_  
License \_\_\_\_\_

3. OTHER \_\_\_\_\_  
\_\_\_\_\_

Signed \_\_\_\_\_  
Date \_\_\_\_\_