

APPLICATION FOR MATERIAL LICENSE

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.

FEDERAL AGENCIES 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 JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND,
OR VERMONT, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIAL SECTION B
631 PARK AVENUE
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
MATERIAL RADIATION PROTECTION SECTION
101 MARIETTA 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
MATERIAL RADIATION PROTECTION 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 06-19320-0

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

L. G. DEFELICE, INC.
30 Bernhard Road
North Haven, CT 06473

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

L. G. DEFELICE, INC.
30 Bernhard Road
North Haven, CT 06473

8604040646 860127
REG1 LIC30
06-19320-01 PDR

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Jonathan P. Miller

TELEPHONE NUMBER

(203)787-7131, ext.126

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 FREQUENTLY VISITING 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 1.J AMOUNT ENCLOSED \$ 120.00

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

John A. O'Connor John A. O'Connor

Vice President, Engineering 5/21/85

14. VOLUNTARY ECONOMIC DATA

a. ANNUAL RECEIPTS

<\$250K	\$1M-3.5M
\$250K-500K	\$3.5M-7M
\$500K-750K	\$7M-10M
\$750K-1M	>\$10M

b. NUMBER OF EMPLOYEES (Total for entire facility excluding outside contractors)

c. NUMBER OF BFDs

d. WOULD YOU BE WILLING TO FURNISH COST INFORMATION (Dollar and/or staff hours) ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? (NRC regulations permit it to protect confidential commercial or financial—proprietary—information furnished to the agency in confidence)

YES ☒ NO ☐

FOR NRC USE ONLY

TYPE OF FEE **FEE LOG** **FEE CATEGORY** **COMMENTS**

Renewal June 21 3P "OFFICIAL RECORD COPY"

AMOUNT RECEIVED

CHECK NUMBER

\$120

9152

03876

APPROVED BY

Frances Brown

DATE

MAY 29 1985

6/6/85

PRIVACY ACT STATEMENT

Pursuant to 5 U.S.C. 552a(e)(3), enacted into law by section 3 of the Privacy Act of 1974 (Public Law 93-579), the following statement is furnished to individuals who supply information to the Nuclear Regulatory Commission on NRC Form 313. This information is maintained in a system of records designated as NRC-3 and described at 40 Federal Register 45334 (October 1, 1975).

1. **AUTHORITY:** Sections 81 and 161(b) of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2111 and 2201(b)).
2. **PRINCIPAL PURPOSE(S):** The information is evaluated by the NRC staff pursuant to the criteria set forth in 10 CFR Parts 30, 32, 33, 34, 35 and 40 to determine whether the application meets the requirements of the Atomic Energy Act of 1954, as amended, and the Commission's regulations, for the issuance of a radioactive material license or amendment thereof.
3. **ROUTINE USES:** The information may be (a) provided to State health departments for their information and use; and (b) provided to Federal, State, and local health officials and other persons in the event of incident or exposure, for their information, investigation, and protection of the public health and safety. The information may also be disclosed to appropriate Federal, State, and local agencies in the event that the information indicates a violation or potential violation of law and in the course of an administrative or judicial proceeding. In addition, this information may be transferred to an appropriate Federal, State, or local agency to the extent relevant and necessary for an NRC decision or to an appropriate Federal agency to the extent relevant and necessary for that agency's decision about you.
4. **WHETHER DISCLOSURE IS MANDATORY OR VOLUNTARY AND EFFECT ON INDIVIDUAL OF NOT PROVIDING INFORMATION:** Disclosure of the requested information is voluntary. If the requested information is not furnished, however, the application for radioactive material license, or amendment thereof, will not be processed. A request that information be held from public inspection must be in accordance with the provisions of 10 CFR 2.790. Withholding from public inspection shall not affect the right, if any, of persons properly and directly concerned need to inspect the document.
5. **SYSTEM MANAGER(S) AND ADDRESS:** U.S. Nuclear Regulatory Commission
Director, Division of Fuel Cycle and Material Safety
Office of Nuclear Material Safety and Safeguards
Washington, D.C. 20555

5. RADIOACTIVE MATERIAL

a. Element & Mass No.	b. Chemical&/orPhysical Form	Name of Manufacturer & Model Number	Maximum No. of Millicuries and/or Sealed & Maximum Activity Per Source c. Which Will Be Possessed At Any One Time
CS 137	Sealed Source	Troxler Dwg. 102112	No single source
AM241:BE	Sealed Source	Troxler Dwg. 102451	No single source to exceed 40 mc

6. PURPOSE FOR WHICH LICENSED MATERIAL WILL BE USED

For use in Troxler 3400 Series Moisture-Density Gauge
to measure properties of construction materials.

7. INDIVIDUALS WHO WILL USE OR DIRECTLY SUPERVISE THE USE OF
LICENSED MATERIAL

Alan Antonelli

Richard Bird

Please see attached Resumes

RESUME

Name: Alan Walter Antonelli

Address: Palmieri Place, North Haven, CT 06473

Telephone: 234-0888

Citizenship: United States Religion: Christian

Born: New Haven, Connecticut Date: February 19, 1953

Height: 5'11" Weight: 170 lbs.

Marital Status: Married Children: 0

Languages: Spanish and English

Education: West Haven High School - Graduated in 1970
University of New Haven - Graduated in 1975, B.S. Civil Engineering
Troxler Electronics - 2 day training course for operation of nuclear instrument
Compaction Technician Course
Portland Concrete Cement Course

Experience:

1979 - Present L. G. Defelice, Inc., 30 Bernhard Road, North Haven, CT 06473
August 1983 - May 1985 -- Project Engineer in charge of transportation project at Bradley International Airport, Windsor Locks, CT.
February 1982 - August 1983 -- Project Engineer in charge of construction for Metropolitan Dade County Project in Miami, FL.
January 1980 - August 1983 -- Project Engineer in charge of construction for the Town of Colchester force main project in Colchester, CT. Also roadway project for Connecticut Department of Transportation project in North Haven, CT.
May 1979 - January 1980 -- Project Engineer in charge of construction for Connecticut Department of Transportation project in New Britain, CT.
Duties include on-site engineering, quality control, coordination between Defelice Company, Dept. of Transportation and Subcontractors.

1978 Interdef (S.A.) Limited
Engineer in charge of Civil Works for CEI 63.0 construction at Sanaa, Yemen. Duties included on-site engineering, survey, acting as liaison between Interdef and government officials, office management (including purchasing, book-keeping, payroll, etc.). Reason for leaving: reassigned to Interdef's North Haven, CT office.

RESUME

Alan Walter Antonelli

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- 1977 Interdef (S.A.) Limited, Taif, Saudi Arabia
Engineer in charge of construction for Peace Hawk V
Integrated Utilities at Taif, Saudi Arabia. Duties
included site engineering, survey, acting as liaison
between Interdef and government officials. Reason for
leaving: Project completed, reassignment to Sanaa, Yemen.
- 1976 - 1977 Academic Industries, West Haven, CT
Assistant Manager.
- 1973-1974 L. G. Defelice, Inc., North Haven, CT
Construction laborer.
- 1972 Yonkers Construction Company, New York
Construction laborer.
- 1970-1971 Campanella Construction Company, Rhode Island
Construction laborer.

RESUME

Name: Richard Bird

Address: 186 Bristol Street, Southington, CT 06489

Phone: 628-7692

Citizenship: United States

Born: Plattsburgh, New York Date: June 7, 1929

Height: 5' 9-1/2" Weight: 220 lbs.

Marital Status: Married

Education: Plattsburgh High School, New York
Waterbury Technical School, Waterbury, CT
Compaction Technician Course
Portland Concrete Cement Course
Troxler Electronics - 2 day training course for operation
of nuclear instrument

Experience:

1984 - present Interdef (S.A.) Limited, Jeddah, Saudia Arabia
General Manager

1976 - 1984 L. G. Defelice, Inc., 30 Bernhard Road, North Haven, CT 06473
August 1979 - 1984 -- Project Engineer, West Virginia
Turnpike Project
January 1979 - March 1979 -- Project Engineer, highway
project for Connecticut D.O.T., Trumbull, CT
March 1978 - January 1979 -- Site Manager on various
locations in Saudi Arabia constructing airport support
facilities.
March 1976 - March 1978 -- Project Engineer on highway
project in Saudi Arabia.

1970 - 1976 Kratzert and Jones Associates, Connecticut
Chief of Survey -- in charge of approximately seven
survey crews, scheduling and supervising survey work.

1966 - 1970 Brunalli Construction Company, Southington, CT.
Project Engineer, Bridge Engineer for all projects
by the firm during a four-year period.

1959 - 1966 Capital Engineers, Pittsburgh, PA.
Bridge Engineer.

1955 - 1959 R. E. Smith Engineers, New York
Party Chief

RESUME
Richard Bird
page 2

1945 - 1950

D & H Railroad, Delaware and Hudson
Section Hand -- helped Engineer do alignment of tracks.

Military:

United States Army - December 1950 to March 1955.
Attended two survey schools at Ft. Sill, Oklahoma.
Two years in Far East (attended CBR course in
Japan). 16 months in Korea, Combat Infantry.

8. TRAINING FOR INDIVIDUALS WORKING OR FREQUENTING RESTRICTED AREAS.

Please refer to Item No. 7.

9. FACILITIES AND EQUIPMENTa. Storage of Sealed Source

Container and/or Device in which each sealed source will be stored or used	Name of Manufacturer	Model Number
Moisture Density Gauge	Troxler Electronics	3400 Series

- b. The instrument is to be stored in a locked steel container which has only one door and no windows. This container is restricted to only job supervisory personnel, and the compartment for the instrument is to be kept locked and under the responsibility of the Radiation Safety Officer. At no time will unauthorized personnel be allowed to remove the instrument from the compartment.

10. RADIATION SAFETY PROGRAM

Radiation Protection Program material is to be used for the testing of density requirements for earth and asphalt construction materials on a project for the State of Connecticut. The Radiation Safety Officer as named previously will report directly to the Project Manager. He will oversee and supervise Troxler instruments in accordance with the following program:

A. HANDLING PROCEDURES

1. No person is to operate or attempt to operate the instrument unless he has been authorized to do so.
2. The source position is to be kept in the "safe" or "stored" position when not in use.
3. A film badge or other dose measurement device is to be worn when using or transporting the instrument.
4. While exposure dose levels are well within limits for radiation workers, no person is to be exposed to the bare source without sufficient reason for the justification of the additional dose.
5. All unauthorized persons are to be kept at least 15 feet from the operating instrument.
6. The security of the instrument is to be maintained at all times. The source lock is to be kept in place when not in use and the vehicle used for transporting the instrument shall be kept locked. When stored, the area will be locked. Not only is it an expensive piece of equipment, but if stolen could be abandoned or altered under conditions which could be hazardous.
7. The Company will have standard operating procedures. The Company's operator will follow these procedures and report any that he feels are unsafe.
8. The instrument gauge will have leak tests performed at the intervals required by the Radioactive Materials License.
9. If the operator has any doubts about the use of the instrument, he will ask the Radiological Safety Officer and he will either provide the answer or obtain the answer.
10. The operator will never leave the instrument unattended while away from the designated storage area, even for short periods of time.
11. The instrument shall only be repaired by the manufacturer if the repair involves removal of the source holder.

B. SECURITY

1. Regulations require that locks be maintained on radiographic equipment to prevent accidental exposure of a sealed source when not under the direct supervision of approved personnel. In addition, the storage areas will be physically secured to prevent tampering or the removal of

the instrument by unauthorized personnel.

C. PERSONNEL MONITORING

1. The Defelice Company will not permit any person to use this equipment unless at all times the user is in the possession of a film badge or other form of dosimetry.

D. RECORDS AND REPORTS

1. The Defelice Company will conduct a quarterly physical inventory to account for all sealed sources possessed under his license. The inventory required will be maintained for inspection.
2. The Defelice Company will have all sealed sources leak tested at the interval required by the license. When transferred out of State in the absence of a Leak Test Certificate, the source shall not be put into use until tested.
3. Reports from the film badge service company will be maintained and available for inspection. If a licensed individual terminates employment, a record of his total received dose must be made available to the employee.

E. INCIDENTS

1. The Defelice Company will report any theft or loss of licensed material by telephone or telegram to the appropriate agency (or agencies) including the appropriate State agency. Within 30 days after the loss, a written report must be filed giving detailed description of the source, circumstances of loss, statement of disposition, possible radiation exposure or hazards, actions taken to recover the source and procedures which will be implemented to prevent a recurrence of the loss or theft.
2. The Radiation Safety Officer will report any over-exposure of operators which exceeds the limits given in 10 CFR part 20, detailing circumstances of the exposure and possible injury.

F. HANDLING AND EMERGENCY PROCEDURES

1. No personnel may transport or use the nuclear gauges unless that person has been approved by the Radiological Safety Officer and the requirements of these procedures are met.
2. Each user must demonstrate his ability to the Safety Officer to correctly and safely use the nuclear gauge.
3. At the end of each day in which the nuclear gauge is used, it will be transferred to its regular storage area.

4. In the event of physical damage to a gauge, a 6' radius exclusion area will be maintained until the extent of source damage (if any) is determined. If a vehicle transporting the gauge is involved, it must be stopped and remain stopped until the extent of contamination hazard (if any) is determined. If visual examination of the instrument and source indicates damage to the source including fractures of the weld, the appropriate authorities and Troxler Laboratories, Inc. should be notified. The instrument may be removed from the site by using a shovel or other long-handled instrument and placed in a suitable container such as a metal drum. Provisions should be made to have the site surveyed for possible contamination after the instrument is removed. Disposition by the factory, as covered later, would be arranged after a leak test had been performed to determine the integrity of the source before shipment back to the factory.
5. Immediate telephone notification must be made to the following in the event of an accident (#4 above) or the loss of a sealed source whether accidental or due to theft.
 - a. Company Radiological Safety Officer
 - b. NRC Regional Office, if applicable
 - c. State Health Department
Radiological Protection Division, if applicable
 - d. Local Authorities
Fire Dept., Sheriff, Police, State Highway Patrol
 - e. Troxler Electronic Laboratories, if necessary.

G. TRANSPORTATION BY PRIVATE MOTOR VEHICLE

1. The equipment, in its container, may be transported by motor vehicle under the "YELLOW II" label without placarding the vehicle as required by 49 CFR 177.823.
2. The lock should be in place and the container placed in a portion of the vehicle which can be locked. When not in transit, the equipment should be stored in a secured area.
3. Since the container has a Transport Index of 0.1 or greater, it may not be stored less than 30 centimeters from passengers per 49 CFR 174.586. It should also not be stored for more than 8 hours at less than 1 meter from undeveloped film.

H. FINAL INSPECTION

1. It is the final responsibility of the Defelice Company to obtain copies of regulations which apply to the Company's situation and to comply with them.

I. RADIATION PROTECTION OFFICER

The Defelice Company's Radiation Protection Officer, as named previously under Item 7, will be responsible for assuring that all handling, using and storing procedures are correct and in conformance with the conditions set forth by this application. In addition, he will perform the following duties and be responsible for:

1. To assure that by-product materials possessed under the license conform to the material listed on the license.
2. To assure that use of the devices, particularly in the field, is only by individuals authorized by the license.
3. To assure that all users wear personnel monitoring equipment, such as film badges when required.
4. To assure the security of the instrument at all times when not in use.
5. To serve as a point of contact and give assistance in case of emergency (gauge damage in the field, fire, theft, etc.), to assure that proper authorities, for example, NRC, local police and State personnel are notified promptly in case of accident or damage to the gauge.
6. To assure that the terms and conditions of the license, such as periodic leak tests, are met and that the required records, such as personnel exposure records, leak test records, etc. are periodically reviewed for compliance with NRC regulations, requirements and license conditions.

J. LEAK TESTS

The Defelice Company will use a leak test kit manufactured by the Troxler Company, Model No. 3880. Responsibility for the test is a duty of the Nuclear Safety Officer.