

## 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, 36, 39, 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.

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Licensee		3. License Number 20-30372-01	
1. Cushing, Goins & Kirschner, Inc.		4. Expiration Date February 28, 2007	
2. 422 West Grove Street Middleboro, Massachusetts 02346		5. Docket or Reference No. 030-34351	
6. Byproduct, Source, and/or Special Nuclear Material	7. Chemical and/or Physical Form	8. Maximum Amount that Licensee May Possess at Any One Time Under This License	
A. Cesium 137	A. Sealed sources	A. 100 millicuries	
B. Americium 241	B. Sealed neutron sources	B. 500 millicuries	
9. Authorized use			
A. and B. For possession and use in Troxler Electronic Laboratories, Inc., Campbell Pacific Nuclear Corp., Humboldt Scientific, Inc., Seaman Nuclear Corporation, or Soiltest, Incorporated devices which have been evaluated and approved for licensing purposes under a license issued by the U.S. Nuclear Regulatory Commission or any Agreement State.			

## CONDITIONS

10. Licensed material may be stored at the licensee's facilities located at 422 West Grove Street, Middleboro, Massachusetts and may be used only 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 may not possess and use materials authorized in Items 6, 7, and 8, until: (1) the licensee has constructed the facilities and obtained the equipment described in the application and supporting documentation; and (2) the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406 has been notified in writing that activities authorized by the license will be initiated.

In accordance with the requirements set forth in 10 CFR 30.36(b), 40.42(b), and 70.38(b), the licensee shall promptly notify the Nuclear Regulatory Commission, in writing, of a decision not to complete the facility, acquire equipment, or possess and use authorized material.

12. Licensed material shall only be used by, or under the supervision and in the physical presence of, Steven W. Melloni or individuals who have successfully completed the manufacturer's training program for gauge users, have been instructed in the licensee's routine and emergency operating procedures and who have been designated in writing by the Radiation Safety Officer.

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**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number

20-30372-01

Docket or Reference Number

030-34351

13. The Radiation Safety Officer for this license is Steven W. Melloni.
14. A. Sealed sources and detector cells containing licensed material shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed three years.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed three months.
- C. In the absence of a certificate from a transferor indicating that a leak test has been made within six months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
- D. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
- E. Sealed sources and detector cells need not be leak tested if:
- (i) they contain only hydrogen-3; or
  - (ii) they contain only a radioactive gas; or
  - (iii) the half-life of the isotope is 30 days or less; or
  - (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
  - (v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transfer to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- F. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission and the source or detector cell shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within five days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source or detector cell involved, the test results, and corrective action taken.

MATERIALS LICENSE  
SUPPLEMENTARY SHEETLicense Number  
20-30372-01Docket or Reference Number  
030-34351

- G. The licensee is authorized to collect leak test samples for analysis by Troxler Electronics Laboratories, Inc. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
15. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
16. The licensee shall conduct a physical inventory every six months to account for all sealed sources and devices containing licensed material received and possessed under the license.
17. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.
18. Each portable nuclear gauge shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The gauge or its container must be locked when in transport, storage or when not under the direct surveillance of an authorized user.
19. Any cleaning, maintenance, or repair of the gauge(s) that requires removal of the source rod shall be performed only by the manufacturer or by other persons specifically licensed by the Commission or an Agreement State to perform such services.
20. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
21. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- A. Application dated January 24, 1997  
B. Letter dated February 12, 1997

For the U.S. Nuclear Regulatory Commission

Original Signed By:

By

John R. McGrath

Division of Nuclear Materials Safety  
Region I  
King of Prussia, Pennsylvania 19406

Date

FEB 24 1997

FEB 24 1987

License No. 20-30372-01  
Docket No. 030-34351  
Control No. 124167

Alan R. Kirschner, President  
Cushing, Goins & Kirschner, Inc.  
422 West Grove Street  
Middleboro, Massachusetts 02346

Dear Mr. Kirschner:

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

Please be advised that your license expires at the end of the day, in the month, and year stated in the license. Until your license is terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Not possess and use materials authorized in Items 6, 7, and 8, on the license until:
  - a. you have constructed the facilities and obtained the equipment described in the license application and supporting documentation; and
  - b. you have notified the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406 in writing, that activities authorized by the license will be initiated.
3. Notify NRC, in writing, within 30 days:
  - a. when the Radiation Safety Officer permanently discontinues performance of duties under the license or has a name change; or

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- b. when the mailing address on the license changes (no fee is required if the location of byproduct material remains the same).
4. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license:
  - a. when you decide to terminate all activities involving materials authorized under the license; or
  - b. if you decide not to complete the facility, acquire equipment, or possess and use authorized material.
5. Request and obtain a license amendment before you:
  - a. change Radiation Safety Officer;
  - b. order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;
  - c. add or change the areas of use, or address or addresses of use identified in the license application or on the license; or
  - d. change ownership of your organization.
6. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations. A license will not normally be renewed, except on a case-by-case basis, in instances where licensed material has never been possessed or used.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or a certifying official of the licensee rather than the Radiation Safety Officer or a consultant.

You will be periodically inspected by the NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation, or imposition of a civil penalty, or an order suspending, modifying or revoking your license as specified in the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy), NUREG 1600.

Alan R. Kirschner, President  
Cushing, Goins & Kirschner, Inc.

-3-

Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

Thank you for your cooperation.

Sincerely,

Original Signed By:

John R. McGrath  
Senior Health Physicist  
Division of Nuclear Materials Safety

License No. 20-30372-01  
Docket No. 030-34351  
Control No. 124167

Enclosures:

1. License No. 20-30372-01
2. 10 CFR Parts 2, 19, 20, 30 and 170
3. NRC Form 3 and 313

DOCUMENT NAME: R:\WPS\MLTR\L2030372.01

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

OFFICE	DNMS/RI	<input checked="" type="checkbox"/> N	DNMS/RI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NAME	McGrath	JAM					
DATE	02/18/97	02/ /97	02/ /97	02/ /97	02/ /97	02/ /97	02/ /97

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February 12, 1997

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Q-Ø

030-34351

Mr. John McGrath  
U.S. Nuclear Regulatory Commission, Region I  
475 Allendale Road  
King of Prussia, PA 19406-1415

RE: Responses to NRC comments on an Application for Material License,  
Mail Control No. 124167

Dear Mr. McGrath:

This letter responds to your questions in a telephone conversation on February 11, 1997 regarding the above mentioned application. The following are responses to the questions in said conversation.

1. A brief memorandum from the President of CGK, Inc. is included stating that the Radiation Safety Officer (RSO) has the authority to stop unsafe operations and is in full control over the radiation safety program. The memorandum, along with an organizational chart showing the RSO has sufficient independence and direct communication with upper management, is provided as requested.
2. The company has purchased a TroxAlert radiation survey meter from Troxler Electronic Laboratories, Inc. of Research Triangle Park, North Carolina. The GM survey instrument detects alpha, beta, gamma, and X-ray radiation with a calibration based on the gamma emissions from a Cesium 137 source. The meter will be calibrated on an annual basis by Troxler Electronic Laboratories.
3. Inventories for all sealed sources and devices received under the license will be conducted at intervals not to exceed six months. Records of the inventories will be maintained for at least three years from the date of the inventory.

If any additional information is required, please feel free to contact me at this office.

Very truly yours,

Cushing, Goins & Kirschner, Inc.

Steven W. Melloni  
Senior Engineer/  
Radiation Safety Officer

Cushing, Goins & Kirschner, Inc.

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124167

FEB 14 1997



### MEMORANDUM

I, Alan R. Kirschner, President of Cushing, Goins & Kirschner, Inc. of 422 West Grove Street, Middleboro, Massachusetts, certifies that Steven W. Melloni is designated as the Radiation Safety Officer of the company. Mr. Melloni has the independent authority to stop operations that he considers unsafe and has sufficient time and commitment from management to fulfill certain duties and responsibilities ensuring that radioactive materials are used only by authorized individuals and in a safe manner.

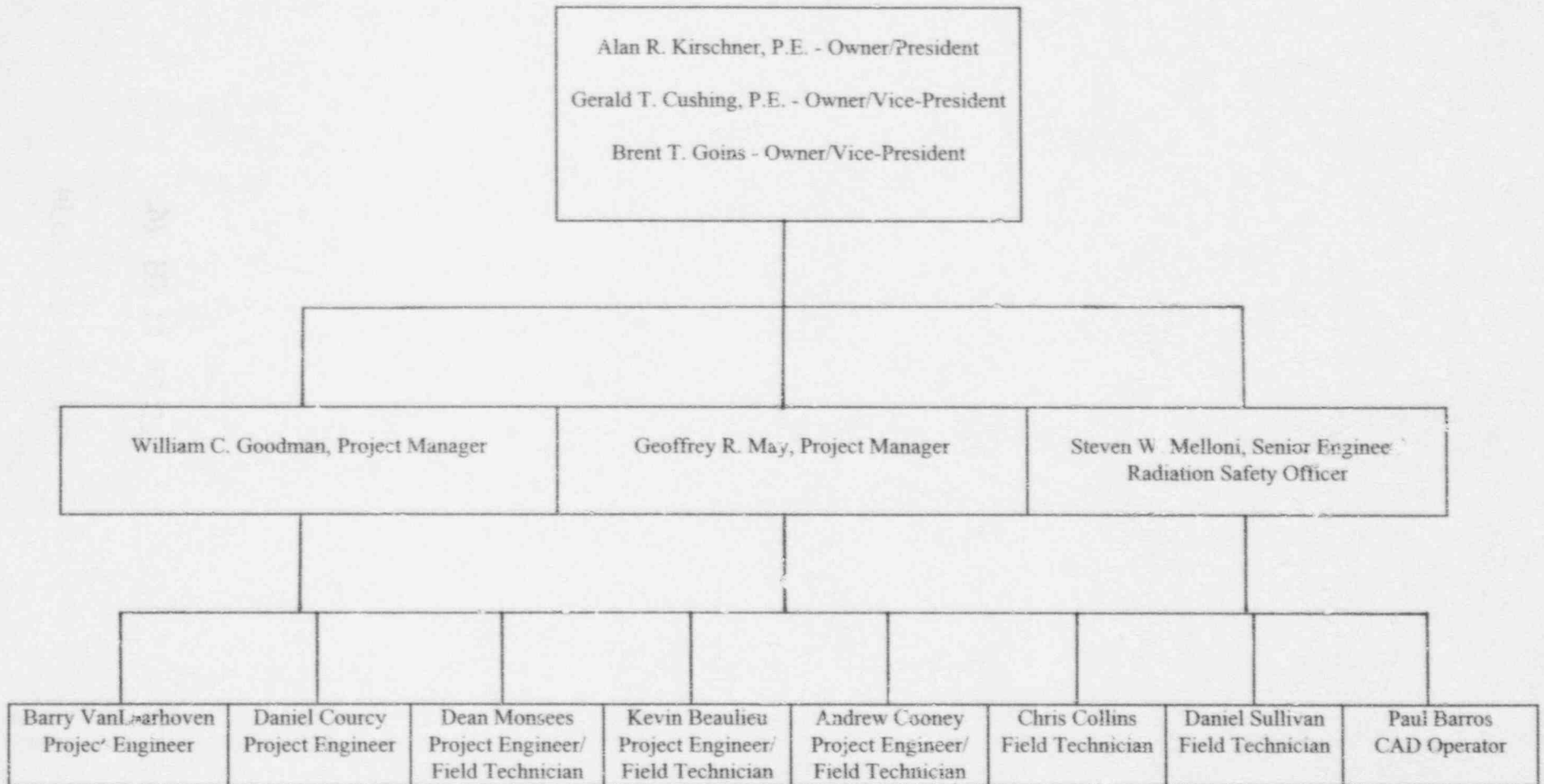
  
Alan R. Kirschner, P.E.

2/12/97  
Date



# CUSHING, GOINS & KIRSCHNER, INC.

## ORGANIZATIONAL CHART



<b>TELEPHONE CONVERSATION RECORD</b>		<b>Date:</b> 2/11/97	<b>Time:</b> 1500
<b>Mail Control No.:</b> 124167		<b>License No.:</b>	<b>Docket No.:</b> 030-34351
<b>Person Called:</b> Steven Melloni		<b>Organization:</b> Cushing, Goins & Kirschner	<b>Telephone Number:</b> 508- 923-0879
<b>Person Calling:</b>			
<b>Subject:</b> Application			
<p><b>Summary:</b> Itemized the following deficiencies:</p> <ol style="list-style-type: none"> <li>1. Need management commitment re RSO duties including stopping unsafe practices.</li> <li>2. Need organization chart.</li> <li>3. Need type of survey instrument and who will calibrate.</li> <li>4. Commitment to maintain records of inventories for three years.</li> </ol>			
<b>Action Required/Taken:</b>			
<b>Signature:</b> John R. McGrath <i>JRM</i>		<b>Date:</b> 2/11/97	

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(7-86)  
10 CFR 30, 32, 33  
34, 35, 36, 39 and 40

## APPLICATION FOR MATERIAL LICENSE

Estimated burden per response to comply with this information collection request: 7 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Forward comments regarding burden estimate to the Information and Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0120), Office of Management and Budget, Washington, DC 20503. NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

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.

## APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY  
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS  
U.S. NUCLEAR REGULATORY COMMISSION  
WASHINGTON, DC 20555-0001

## 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:

LICENSING ASSISTANT SECTION  
NUCLEAR MATERIALS SAFETY BRANCH  
U.S. NUCLEAR REGULATORY COMMISSION, REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PA 19406-1415

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

NUCLEAR MATERIALS LICENSING SECTION  
U.S. NUCLEAR REGULATORY COMMISSION, REGION II  
101 MARIETTA STREET, NW, SUITE 2900  
ATLANTA, GA 30323-0190

## IF YOU ARE LOCATED IN:

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

MATERIALS LICENSING SECTION  
U.S. NUCLEAR REGULATORY COMMISSION, REGION III  
801 WARRENVILLE RD.  
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS,  
LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA,  
OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH,  
WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION  
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV  
811 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TX 76011-6064

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 JURISDICTIONS.

## 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)

Cushing, Goins & Kirschner, Inc.  
422 West Grove Street  
Middleborough, MA 02346

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

At address listed in Item 2 and at temporary job sites  
in States subject to NRC's regulatory authority.

## 4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Steven W. Melloni

## TELEPHONE NUMBER

(508) 923-0879

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 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 \$ 550.00

## 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, 36, 39 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 82 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.

## CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE

Alan R. Kirschner, P.E., President

## SIGNATURE

## DATE

1-24-97

## FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
-------------	---------	--------------	-----------------	--------------	----------

\$

## APPROVED BY

## DATE

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124167



## APPLICATION FOR MATERIAL LICENSE

### ITEM 5 - RADIOACTIVE MATERIAL

<u>Radionuclei</u>	<u>Chemical/ Physical Form</u>	<u>Max. Activity/ Source</u>
Cesium 137 (Cs-137)	Sealed sources	8.0 mCi
Americium 241 (Am-241:Be)	Sealed neutron sources	40.0 mCi

#### Authorized Use

For use in Troxler Electronic Laboratories Model 3440 gauge to measure moisture content and field density of construction materials.

#### Possession Limit Commitment

We will confine our possession of licensed material to quantities such that we will not exceed the applicable limits in 10 CFR 30.35(d).

### ITEM 6 - PURPOSES FOR WHICH LICENSED MATERIAL WILL BE USED

The nuclear density gauge will be used for measuring moisture and density of construction materials. The gauge will be used only for the purposes for which the device is designed and in accordance with the manufacturer's recommendations for use.

The sealed source on the nuclear density gauge will be lowered into the ground no more than 12-inches from the surface.

### ITEM 7 - INDIVIDUAL RESPONSIBLE FOR RADIATION SAFETY PROGRAM

Steven Melloni has been designated as the company's Radiation Safety Officer (RSO). Mr. Melloni has used the nuclear density gauge at several construction sites since he was certified in 1992. As RSO, he will perform all maintenance and leak detection tests on the density gauge.

Mr. Melloni completed the manufacturer's operator training program on May 22, 1992. Troxler Electronic Laboratories, Inc. conducted the Nuclear Gauge Safety Training seminar at the Holiday Inn in Marlboro, Massachusetts. The name of the instructor was Philip Palilla, former Manager of the Troxler Northeastern Branch office. A copy of Mr. Melloni's operator training certificate (#053517) is enclosed.

Mr. Melloni has also completed the Troxler Radiation Safety Officer Course on June 13, 1996 at the Holiday Inn in Boston, Massachusetts. A copy of Mr. Melloni's RSO course certificate is enclosed.

Cushing, Goins & Kirschner, Inc.



The RSO's responsibilities and duties will be those listed in Appendix C of the Draft Regulatory Guide DG-0008, dated May 1995.

### **ITEM 8 - TRAINING FOR INDIVIDUALS WORKING IN ... RESTRICTED AREAS**

Each individual who utilizes the nuclear density gauge will complete a Nuclear Gauge Safety Training seminar provided by Troxler Electronic Laboratories, Inc. or equivalent. A copy of each individual's training course certificate will be kept on file for future reference.

Each individual who is permitted to use a nuclear density gauge will be trained in operating and emergency procedures as detailed Appendix H of the Draft Regulatory Guide DG-0008, dated May 1995. A copy of these procedures is distributed to each authorized user.

The RSO will designate, in writing, that each individual who completes the training course is authorized to use the nuclear density gauge.

The RSO will provide an annual refresher training course to all certified gauge users. Training topics such as review of operating and emergency procedures, changes in the NRC regulations and/or DOT requirements, and participating in "dry runs" of emergency procedures are a few of the items to be discussed.

### **ITEM 9 - FACILITIES AND EQUIPMENT**

The nuclear density gauge will be locked in an equipment storage cabinet within an existing office complex. Keys for the storage cabinet will only be in the possession of the RSO. Enclosed is a sketch of the facility indicating where the gauge will be stored when not in use.

The density gauge will be stored in a protective locked container supplied by the manufacturer within the storage cabinet. Transporting the gauge will consist of locking the device in the trunk of a car or secured by a lock and chain while in an open bed truck. When not in use on a job site, the gauge will be locked in the protective container and hidden from view while locked in a vehicle.

### **ITEM 10 - RADIATION SAFETY PROGRAM**

#### **10.1 - Personnel Monitoring Program**

All authorized nuclear density gauge operators will wear a thermoluminescent dosimeter (TLD) from Troxler Electronic Laboratories, Inc. or similar facility licensed by the NRC. TLDs will be processed on a quarterly basis (every three months).

#### **10.2 - Radiation Detection Instruments**

A calibrated survey meter will be stored at the office for timely evaluation of source integrity following an incident at any job site. The survey instrument will be capable of measuring between 0.1 millirem per hour and 100 millirems per hour. The instrument will be calibrated by the manufacturer at intervals not to exceed one year. Before using the survey instrument, we will check the response of the instrument with a dedicated check source that was supplied with the

instrument and, if the instrument does not respond properly, we will not use the instrument until it is repaired and operable or until we obtain an operable instrument.

#### 10.3 - Leak Testing

Leak tests will be performed by Cushing, Goins & Kirschner personnel trained in radiation safety. Leak tests will be performed at intervals not to exceed six months using a Troxler Model 3880 Leak Test Kit or equivalent. The test sample will be sent to the Troxler Electronic Laboratories, Inc. or equivalent to detect the presence of 0.005 microcurie of radioactivity.

#### 10.4 - Inventories

Inventories will be conducted at intervals not to exceed six months in order to account for all sealed sources and devices received and possessed under the license.

#### 10.5 - Maintenance

Maintenance of the gauge will always be performed with the radioactive source in the safe shielded position in accordance with the manufacturer's directions. Any extensive maintenance that requires removal of the source from its shielded position will be performed by the gauge manufacturer.

#### 10.6 - Transportation of Devices to Field Location

Transportation of the nuclear density gauge to and from field locations will be performed in accordance with the requirements of 10 CFR 71 "Packaging and Transportation of Radioactive Material".

#### 10.7 - Operating and Emergency Procedures

The company's radiation safety program will follow the operating and emergency procedures listed in Appendix H of the Draft Regulatory Guide DG-0008, dated May 1995. A copy of these procedures is distributed to each authorized user.

#### 10.8 - Annual Audit of Radiation Safety Program

An annual audit will be performed on our radiation safety program. The audit outline complies with Appendix I of the Draft Regulatory Guide DG-0008, dated May 1995. Prompt action will be taken to correct deficiencies in the safety program.

### **ITEM 11 - WASTE MANAGEMENT**

Disposal will be by transfer of the radioactive material to a person who is specifically licensed to receive and possess it. Records of the transfer will be maintained on file.

# TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

STEVEN W. MELLONI

of

DEFED WAITE & ASSOC.

HAS SUCCESSFULLY COMPLETED THE TROXLER ELECTRONIC LABORATORIES, INC.  
TRAINING COURSE FOR THE USE OF NUCLEAR TESTING EQUIPMENT.

SUBJECTS INCLUDED IN THIS COURSE WERE AS FOLLOWS:

## Radiological Safety

- |  |   |
|--|---|
| 1. Principles and practices of radiation protection.                               | 5. Radioactivity measurement standardization and monitoring techniques and instruments. |
| 2. Leak testing procedures.  | 6. Accident and incident procedures.  |
| 3. Mathematics and calculations basic to the use and measurement of radioactivity. | 7. Procedures for nuclear gauge storage and transportation.                             |
| 4. Biological effects of radiation.  | 8. General safety precautions.  |

## Gauge Operation

- |                         |                      |
|-------------------------|----------------------|
| 1. Instrument theory    | 4. Field application |
| 2. Operating procedures | 5. Gauge calibration |
| 3. Maintenance          |                      |

*Philip Palilla*  
PHILIP PALILLA

INSTRUCTOR

CERTIFICATE #: 053517

5/22/92

DATE

WILLIAM F. TROXLER

PRESIDENT

# *Certificate of Completion*

This Certifies that

STEVEN W. MELLONI

has successfully completed the

*Troxler Radiation Safety Officer Course*

conducted by the training program of

*Troxler Electronic Laboratories, Inc.*

  
FRANK D. JONES

Instructor

6-13-96

Date

WILLIAM F. TROXLER

President



ANALYTICAL BALANCE LABORATORY

MEN'S  
REST ROOM

WOMEN'S  
REST ROOM

BOILER ROOM

EQUIPMENT STORAGE  
CABINET

SECO

ANALYTICAL BALANCE  
STORAGE ROOM

FILE/STORAGE  
ROOM

KITCHEN

OFFICE

OFFICE

CUSHING, GOINS & KIRSCHNER, INC.

OFFICE

OFFICE

OFFICE

OFFICE

OFF



422 West Grove Street  
Middleborough, MA 02346  
Tel. 508. 923. 0879  
FAX: 508. 923. 0894

OFFICIAL RECORD COPY ML 10

FACILITY

SCALE

**ANSTEC  
APERTURE  
CARD**

Also Available on  
Aperture Card

VACANT OFFICE SPACE

VACANT OFFICE SPACE

FLOOR

COPY  
Room

RECEPTION  
AREA

CONFERENCE  
Room

OFFICE

OFFICE

PRINT  
Room

OFFICE

OFFICE

SKETCH

1"=8'

9704150007-1 124/67

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM  
AND  
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)  
INFORMATION FROM LTS  
-----

PROGRAM CODE: 03121  
STATUS CODE: 3  
FEE CATEGORY: -----  
EXP. DATE: 0  
FEE COMMENTS: -----  
DECOM FIN ASSUR REQD: -----  
.....

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

APPLICANT/LICENSEE: CUSHING, GOINS & KIRSCHNER, INC.  
RECEIVED DATE: 970128  
DOCKET NO: 3034351  
CONTROL NO.: 124167  
LICENSE NO.:  
ACTION TYPE: NEW LICENSEE

2. FEE ATTACHED

AMOUNT: \$550.00  
CHECK NO.: 1167

3. COMMENTS

SIGNED  
DATE

M. A. Perkins  
1/28/97

*Rec'd 2/4/97*

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED 1/1)

1. FEE CATEGORY AND AMOUNT: 3P 850

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:

AMENDMENT -----  
RENEWAL -----  
LICENSE -----

3. OTHER -----

SIGNED  
DATE

-----  
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I (GR)

Log	<u>Feb 4</u>
Reminder	
Check No.	<u>1167</u>
Amount	<u>850</u>
Fee Category	<u>3P</u>
Type of Fee	<u>APP</u>
Date Check Rec'd	<u>2/8/97</u>
Date Completed	<u>2/8/97</u>
By:	<u>[Signature]</u>