

NRC FORM 313
(03-2014)
10 CFR 30, 32, 33, 34
35, 36, 37, 39, and 40

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0120

EXPIRES: 05/31/2015



APPLICATION FOR MATERIALS LICENSE

Estimated burden per response to comply with this mandatory collection request: 4.3 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. Send comments regarding burden estimate to the FOIA, Privacy, and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollections.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NECB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

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. *AMENDMENTS/RENEWALS THAT INCREASE THE SCOPE OF THE EXISTING LICENSE TO A NEW OR HIGHER FEE CATEGORY WILL REQUIRE A FEE.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

OFFICE OF FEDERAL & STATE MATERIALS AND ENVIRONMENTAL MANAGEMENT PROGRAMS
DIVISION OF MATERIALS SAFETY AND STATE AGREEMENTS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA,

SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION REGION I
2100 HANNAH BOULEVARD SUITE 100
KING OF PRUSSIA PA 19406-2713

03028770

IF YOU ARE LOCATED IN:

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

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE IL 60532-4352

Br. 2

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, 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 BRANCH
U.S. NUCLEAR REGULATORY COMMISSION REGION IV
1600 E LAMAR BOULEVARD
ARLINGTON, TX 76011-4511

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 45-23090-01

2 NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code)

Department of Transportation
Federal Highway Administration
Office of Infrastructure R&D (HRDI-1)
6300 Georgetown Pike, McLean, VA 22101-2296

3 ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Stored and principally used at Turner-Fairbank Highway Research Center, 6300 Georgetown Pike, McLean, VA 22101-2296

4 NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Dennis Sixbey

BUSINESS TELEPHONE NUMBER (202) 493-3078

BUSINESS CELLULAR TELEPHONE NUMBER

BUSINESS EMAIL ADDRESS dennis.sixbey@dot.gov

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

8 TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS

9 FACILITIES AND EQUIPMENT

10 RADIATION SAFETY PROGRAM

11 WASTE MANAGEMENT

12 LICENSE FEES (Fees required only for new applications, with few exceptions*) (See 10 CFR 170 and Section 170.31)

FEE CATEGORY **EXEMPT, GOVT** AMOUNT ENCLOSED \$

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, 37, 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, 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.

CERTIFYING OFFICER -- TYPED/PRINTED NAME AND TITLE

Mr. Jorge E. Pagan-Ortiz Director, Office of Infrastructure R&D

SIGNATURE

DATE 05/27/15

FOR NRC USE ONLY

| TYPE OF FEE | FEE LOG | FEE CATEGORY | AMOUNT RECEIVED | CHECK NUMBER | COMMENTS |
|-------------|---------|--------------|-----------------|--------------|----------|
| APPROVED BY | | | \$ | DATE | |

REC'D IN LAT 5-28-15

587097
NMSS/RGN1 MATERIALS-002

Items 5 and 6: Materials To Be Possessed and Proposed Uses

| Yes | No | Radionuclide | Manufacturer or Distributor Model No. | Quantity | Use as Listed on SSD Registration Certificate | Specify Other Uses Not Listed on SSD Registration Certificate |
|-----|----|---------------|--|---|--|--|
| X | | Cesium-137 | Gauge manufacturer or distributor and model number of the gauge: See Attached | Specify activity per source and number of gauges requested. | Yes <input checked="" type="checkbox"/> Specific description of the gauge use: | <input type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: (Submit safety analysis supporting safe use) |
| | X | Americium-241 | Gauge manufacturer or distributor and model number of the gauge: | Specify activity per source and number of gauges requested. | Yes <input type="checkbox"/> Specific description of the gauge use: | <input type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: (Submit safety analysis supporting safe use.) |

| Yes | No | Radionuclide | Manufacturer or Distributor Model No. | Quantity | Use as Listed on SSD Registration Certificate | Specify Other Uses Not Listed on SSD Registration Certificate |
|-----|----|---|--|---|--|---|
| | X | Californium-252 | Gauge manufacturer or distributor and model number of the gauge: <hr/> | Specify activity per source and number of gauges requested. <hr/> <hr/> | Yes <input type="checkbox"/> Specific description of the gauge use: <hr/> <hr/> <hr/> <hr/> | <input type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: <hr/> (Submit safety analysis supporting safe use.) |
| | X | Radium-226 | Gauge manufacturer or distributor and model number of the gauge and number of gauges of each model that is being requested: <hr/> | Specify activity per source and number of gauges requested. <hr/> <hr/> | Yes <input type="checkbox"/> Specific description of the gauge use: <hr/> | <input type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: <hr/> (Submit safety analysis supporting safe use.) |
| X | | Other Isotope (Specify): Am-241+Be | Gauge manufacturer or distributor and model number of the gauge: See Attached <hr/> | Specify activity per source and number of gauges requested. <hr/> <hr/> | Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <hr/> | <input type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: <hr/> (Submit safety analysis supporting safe use.) |
| | X | Is financial assurance required? If yes, submit evidence of financial assurance | | | | |

**Items 7 through 11: Training and Experience,
Facilities and Equipment, Radiation Safety Program,
and Waste Disposal**

| Item No. and Title | Suggested Response | Yes | Alternative Procedures Attached |
|--|--|---|--|
| <p>7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE—RADIATION SAFETY OFFICER</p> <p>Name: <u>Dennis Sixbey</u></p> | <p>Provide documentation of the training of the proposed RSO.</p> <p align="center">See Attached</p> | <p>Submit applicable documentation.</p> | |
| <p>8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS</p> | <p>Before using licensed materials, authorized users will have successfully completed one of the training courses described in the "Criteria" part of the section titled "Training for Individuals Working in or Frequenting Restricted Areas" in NUREG-1556, Vol. 1, Rev. 2.</p> | <p align="center"><input checked="" type="checkbox"/></p> | <p align="center"><input type="checkbox"/></p> |
| <p>9. FACILITIES AND EQUIPMENT</p> | <p>No information needs to be submitted in response to this item; key issues are addressed under "Radiation Safety Program—Public Dose" and "Radiation Safety Program—Operating, Emergency, and Security Procedures" below.</p> | <p align="center">Need Not Be Submitted with Application</p> | |
| <p>10.1 RADIATION SAFETY PROGRAM—AUDIT PROGRAM</p> | <p>The applicant is <i>not</i> required to, and should not, submit its audit program to the NRC for review during the licensing phase. The audit program will be reviewed during NRC inspections.</p> | <p align="center">Need Not Be Submitted with Application</p> | |
| <p>10.2 RADIATION SAFETY PROGRAM—SURVEY INSTRUMENTS</p> | <p>We will either possess and use, or have access to and use, a radiation survey meter that meets the criteria in the section titled "Radiation Safety Program—Instruments" in NUREG-1556, Vol. 1, Rev. 2, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Portable Gauge Licenses," in the event of an incident.</p> | <p align="center"><input checked="" type="checkbox"/></p> | <p align="center"><input type="checkbox"/></p> |

| Item No. and Title | Suggested Response | Yes | Alternative Procedures Attached |
|---|--|--|---|
| 10.7 RADIATION SAFETY PROGRAM—LEAK TEST | Leak tests will be performed at intervals approved by the NRC or an Agreement State and specified in the SSD registration certificate. Leak tests will be performed by an organization licensed by the NRC or an Agreement State to provide leak testing services to other licensees or using a leak test kit supplied by an organization licensed by the NRC or an Agreement State to provide leak test kits to other licensees and according to the kit supplier's instructions. | <input checked="" type="checkbox"/> | <input type="checkbox"/> The Information in Appendix I supporting a request to perform the collection of leak test samples and sample analysis is attached. |
| 10.8 RADIATION SAFETY PROGRAM—MAINTENANCE | <p><i>Routine Cleaning and Lubrication</i> We will implement and maintain procedures for routine maintenance of our gauges according to each manufacturer's recommendations and instructions.</p> <p><i>Nonroutine Maintenance</i> We will send the gauge to the manufacturer or other person authorized by the NRC or an Agreement State to perform nonroutine maintenance or repair operations that require detaching the source or source rod from the gauge.</p> | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> The Information listed in Appendix F supporting a request to perform nonroutine maintenance in house is attached. |
| 10.9 RADIATION SAFETY PROGRAM—TRANSPORTATION | The applicant is <i>not</i> required to submit its response about transportation during the licensing process. This issue will be reviewed during inspection. | | Need Not Be Submitted with Application |
| 11. WASTE MANAGEMENT—GAUGE DISPOSAL AND TRANSFER | The applicant is <i>not</i> required to submit a response about waste management during the licensing process. However, the licensee should establish and include waste disposal procedures in its radiation safety program. | | Need Not Be Submitted with Application |

Inventory of Commercial Devices at TFHRC

| Source | Quantity (millicuries) | Source Disposition (Serial No., Mfg date) | Gauge Description | Pending Disposal |
|---|---------------------------|---|--|------------------|
| ¹³⁷ Cs ²⁴¹ Am + Be | 8 40 | In commercial device (#75 1795, 7-19-1991) In commercial device (#47 15916, 4-23-1991) | Troxler 3440 (#20438) Troxler 3440 (#20438) | None |
| ¹³⁷ Cs ²⁴¹ Am + Be | 8 40 | In commercial device (#50 3957, 9-18-1987) In commercial device (#47 10594, 9-16-1987) | Troxler 3440 (#15115) Troxler 3440 (#15115) | None |

May 26, 2015

ATTACHMENT TO FORM 313
Item 7
Individual Responsible for Radiation Safety Program

Radiation Safety Officer (RSO):

Dennis Sixbey
Research Materials Engineer

Formal Training:

Mr. Sixbey completed the 40-hour "Radiation Safety Officer" course offered by CSI – Radiation Safety Academy, Gaithersburg, Maryland in December 2004. The attached page lists the topic areas covered in the course.

Experience:

Mr. Sixbey has on-the-job experience with Cs-137 and Am-241+Be sources periodically during the past 35 years and has been an authorized user under various materials licenses during that time.

Duties and Responsibilities:

The duties and responsibilities of the RSO will be those listed in Appendix D of NUREG-1556, Volume 1, Rev. 2, dated May 2012. Mr. Sixbey will have full authority and responsibility for overseeing licensed activities.

CSI **Radiation Safety Academy**

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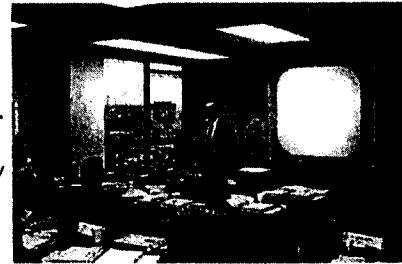
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Radiation Safety Officer

**40-hour course, US\$ 1,995
with LSC Option, US\$ 2,195**

Highly acclaimed by over 1,300 RSOs in the past 10 years

We offer this course monthly with **free refresher** training for all former RSO students. Our Certified Health Physicist faculty are full time training professionals on staff. Collectively we have over 100 years of practical radiation safety program experience to assure that you will be well prepared to serve as an RSO.



Tailor the Course to Your Needs with Electives

This is not a "one-class-fits-all" course. Throughout the week students can choose electives to tailor the course to their special program needs in research, medicine, biomedical, hospitals, government, universities, irradiators, x-ray machines, sealed source gauges, radiography, and other industrial applications.

Required Subjects

Students must complete 32 hours in the following subjects: radiation fundamentals, health risks, regulations, licensing, enforcement, dosimetry, radiation instruments, interpreting radiation data, quality assurance, DOT shipping and receiving of radioactive materials, radiation safety program management, record keeping, preparing for inspections, and emergency response.

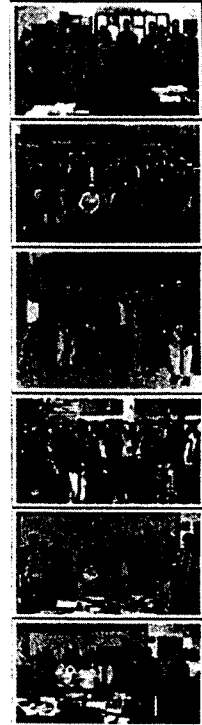
Elective Subjects

Students must complete at least 8 hours from the following 20 hours of electives: sealed sources and gauges, leak testing, x-ray safety, radioactive wastes and manifests, math review, problem solving, license applications, medical regulations (10CFR35), internal dosimetry, radiation litigation, decommissioning, risk assessments, how to conduct surveys, effective communications for RSOs, and training for the radiation safety trainer. We also offer a special session to review materials for the final exam.

Practical Knowledge

This is not a course about theory. We emphasize practical knowledge for implementing a good radiation safety program at a reasonable cost and how to assure good radiation safety inspections. Each student will receive extensive reference materials including a specially designed 1,000 page *Radiation Safety Officer Manual*, a *Regulations Handbook for Radiation Safety Professionals*, and selected set of *Regulatory Guides*.

Photos of Classes from the Past Year
(click to see full-size)



This is to acknowledge the receipt of your letter application dated

5/27/15, and to inform you that the initial processing which includes an administrative review has been performed.

Renewal (45-23090-01)
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** 587097.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.