

(New)

Br. 4

smiths

bringing technology to life
Radiation Safety and Compliance Program
9639 Doctor Perry Rd., Suite 101N
Ijamsville, MD 21754

May 1, 2012

RECEIVED
REGION 1
2012 MAY -3 PM 1:41

Licensing Assistance Team
Division of Nuclear Materials Safety
U.S. Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406-1415

LL 31474
03038547
03225

Re: Application for Materials License

(19-31474-01)

To whom it may concern:

Attached you will find our Application for Materials License. With regard to license fees, I have been unsuccessful in attempting to ascertain the exact amount for fees for our application.

If you would please forward the fee schedule for our request for Application for Materials License, I will have our accounting department send a check for the license fee.

If you have any questions, please don't hesitate to contact me directly.

Very respectfully,



Peter Wallace
Smiths Detection
9639 Doctor Perry Road, Suite 101N
Ijamsville, MD 21754

Peter.Wallace@smithsdetection.com
(202) 641-3949

Enclosures

577472
NMSS/RGN1 MATERIALS-002

NRC FORM 313 (1-2012) 10 CFR 30, 32, 33, 34, 35, 36, 39, and 40	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB: NO. 3150-0120 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 Information Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-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.	EXPIRES: (03/31/2012)		
<h2 style="margin: 0;">APPLICATION FOR MATERIALS LICENSE</h2>					
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: 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 475 ALLENDALE ROAD KING OF PRUSSIA, PA 19406-1415		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 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 <i>(Check appropriate item)</i> <input checked="checked" type="checkbox"/> A. NEW LICENSE <input type="checkbox"/> B. AMENDMENT TO LICENSE NUMBER _____ <input type="checkbox"/> C. RENEWAL OF LICENSE NUMBER _____		2. NAME AND MAILING ADDRESS OF APPLICANT <i>(Include ZIP code)</i> Smiths Detection Ijamsville 9639 Dr. Perry Road, Suite 101N Ijamsville, Maryland 21754			
3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED Temporary Job Sites Under NRC Jurisdiction		4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION Peter Wallace TELEPHONE NUMBER _____			
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. LICENSE FEES <i>(See 10 CFR 170 and Section 170.31)</i> <table style="width: 100%; border: none;"> <tr> <td style="width: 70%; border: none;">FEE CATEGORY</td> <td style="width: 30%; border: none; text-align: right;">AMOUNT ENCLOSED \$</td> </tr> </table>		FEE CATEGORY	AMOUNT ENCLOSED \$
FEE CATEGORY	AMOUNT ENCLOSED \$				
13. CERTIFICATION. <i>(Must be completed by applicant)</i> 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 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		SIGNATURE	DATE		
FOR NRC USE ONLY					
TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED \$	CHECK NUMBER	COMMENTS
APPROVED BY				DATE	

Smiths Detection - Ijamsville

**Temporary Job Site
Radiation Protection Program**

**Prepared In Support of the Possession and Servicing of Devices
Containing IMS Cells**

**Rev 0
April 2012**

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Smiths Detection - Ijamsville Temporary Job Site Radiation Protection Program

1 Organization for Control of Radiation and Radioactive Materials

- 1.1 Licensed radioactive materials will be used at temporary job sites in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material, including areas of exclusive Federal jurisdiction within Agreement States. If the jurisdiction status of a Federal facility within an Agreement State is unknown, Smiths Detection Ijamsville will contact the Federal agency controlling the job site in question to determine whether the proposed job site is an area of exclusive Federal jurisdiction.
- 1.2 The Radiation Protection Program is designed to provide safety for personnel, property, the environment and the public for use of radioactive materials used in sealed source/devices. The program is under the direction of the Radiation Safety Officer (RSO).
- 1.3 Workers that perform service of devices containing radioactive material must receive authorization from the Radiation Safety Officer.
- 1.4 Annually, senior management will commission an audit to be performed by the Radiation Safety Officer or by a consultant that specializes in Radiation Safety. The results of the audit will be provided to senior management. The audit will address the following areas of the radiation safety program:
 - a. ALARA
 - b. Audit History
 - c. Organization and Scope of Program
 - d. Training, Retraining, and Instructions to Workers
 - e. Facilities
 - f. Materials
 - g. Inventories
 - h. Radiation Surveys and Measurements
 - i. Receipt and Transfer of Radioactive Material (including waste disposal)
 - j. Transportation
 - k. Personnel Radiation Protection
 - l. Auditor's Independent Measurements
 - m. Notification and Reports
 - n. Posting and Labeling
 - o. Recordkeeping for Decommissioning
 - p. Bulletins and Information Notices
 - q. Special License Conditions or Issues
 - r. Problems or Deficiencies Noted
 - s. Recommendations
 - t. Evaluation of Other Factors
 - u. Audits

2 RSO Duties and Responsibilities

The RSO is responsible for the following:

- 2.1 **Review and approve designation of work areas within the authorized use rooms/areas (e.g.: repair laboratory)** and all service procedures for devices that contain radioactive material.
- 2.2 Provide for the training of all radioactive materials users and initial and annual refresher training to ancillary personnel and maintain records of this training to include topics covered, the amount of time spent, the date(s), instructor(s), and student(s) names.
- 2.3 Maintain records of radioactive materials inventory, receipt and transfer of licensed material, radiation surveys, and audits, waste disposal, instrument calibration reports, and personnel dosimetry reports.
- 2.4 Provide supervision and assistance for the management of emergency, accident, spill, or exposure situations.
- 2.5 Insure that all devices containing sealed sources have been leak tested within 6-months prior to their use.
- 2.6 Ensure that the terms and conditions of the radioactive materials license is met and that the license is amended for changes in the use of radioactive material, responsible individuals, or commitments provided to during licensing.
- 2.7 Ensure that licensed materials are properly secured against unauthorized removal at all times when not in use.
- 2.8 Review the content and implementation of the radiation safety program at intervals not exceeding 12 months.

3 Responsibilities and Requirements of Radioactive Material Users

Individual User Responsibilities. Each individual (Authorized Users or RAM Users) who works with radioactive materials must adhere to the following:

- 3.1 Receive authorization from the RSO.
- 3.2 Keep exposures to ionizing radiation to levels as low as reasonably achievable (ALARA). The ALARA goals are 10% of the regulatory limits however actual doses are expected to be less than these values.

Table 3.1 ALARA maximum dose goal.

	mrem/y
Total Effective Dose Equivalent	500
The sum of the deep dose equivalent and the committed dose equivalent to any organ or tissue other than the lens of the eye	5000

Eye dose equivalent	1500
Skin and any extremity	5000

- 3.3 Participate in radiation safety training as requested by the RSO.
- 3.4 Provide urine bioassay samples if/when requested.
- 3.5 Insure leak tests have been performed within 6-months prior to operation or service of sealed source/devices.
- 3.6 Use all appropriate protective measures such as:
- Wear protective clothing such as lab coats whenever contamination is possible. Wear disposable gloves at all times when working with radioactive materials and use respiratory protection when necessary.
 - Dispose of radioactive material only as authorized by the Radiation Safety Officer.
 - Secure all licensed materials when not under the constant surveillance and immediate control of authorized personnel.
 - Do not smoke, eat, drink, apply cosmetics, or store/use personal effects in radionuclide use/storage areas.

We will not perform service or repair of the IMS cell. The statements in Item 3 regarding appropriate protective measures would be in the unusual case of a damaged device where damage to the IMS cell was possible and contamination was possible.

- 3.8 Maintain good personal hygiene. When working with radioactive material:
- Keep fingernails short to avoid cutting protective gloves.
 - Wash hands after handling internal surfaces of sealed source devices to limit intake through the mouth, nose, or eyes.
- 3.9 Immediately report any loss or damage of radioactive material sealed source/devices to the RSO, and carry out recommended corrective action.

4 General Policies and Procedures for Radioactive Materials Use

- 4.1 Signs and Labels for Rooms or Areas.
- 4.1.1 A "CAUTION RADIOACTIVE MATERIALS" sign is posted on the doors to rooms/areas where devices containing radioactive material are serviced (e.g.: where device cabinet/cases are opened for servicing or repair).
- 4.2 Shielding of Sources.
- 4.2.1 **The radioactive source is Ni-63 with a maximum activity of 15 mCi, the radiation levels on the outside of the IMS cell are extremely low (only the very low level of bremsstrahlung x-ray radiation is detectable if using a low energy gamma scintillation detector).**
- We will not remove the Ni-63 source from the IMS cell or perform other service on the IMS Cell.**

4.3 Surveys of radioactive materials Use Areas.

4.3.1 The immediate areas in which a device was serviced will be monitored for contamination if the leak test result for that device is above the leak test limit of 0.005 uCi.

4.4 No IMS Cells will be opened.

4.4.1 The Ni-63 sources is contained in the IMS Cell. There is no service that can be performed on the cell.

4.4.2 Unusable cells will be returned to the factory (Smiths Detection Toronto) or to other licensed and authorized facility.

5 Emergency Procedures

5.1 In the event of an accident or emergency where contamination might exist.

- Secure all contaminated items in sealed containers to prevent spread of contamination
- Notify the Radiation Safety Officer (RSO) as soon as possible without permitting excessive spreading of contamination or exposure
- Permit no further work until authorized by the RSO
- Document all incidents

5.2 Fires Involving Radioactive Devices

- Sound the building alarm; this will evacuate the building
- Notify Security and the RSO; provide the exact location of the emergency and the type of emergency
- Ensure that lookouts are posted to direct emergency responders to the emergency and to inform them of the radiation hazards involved
- Attempt to put out the fire if a radiation hazard is not immediately present, if trained in the use of a fire extinguisher and if it can be done without endangering oneself
- Inform emergency responders of the exact nature of the hazards involved and remain in the area (if not injured), at least until the RSO arrives
- Assist the RSO with monitoring emergency responders and personnel after the fire, if requested
- Allow no one to enter the area until cleared by emergency responders and the RSO

5.2 In the event of a damaged radioactive device

- Secure damaged radioactive device in sealed containers to prevent possible spread of contamination
- Notify the RSO as soon as possible without permitting excessive spreading of contamination or exposure
- Permit no further work until authorized by the RSO

6 Radiation Dosimetry for Personnel

Radiation doses to users of radioactive materials under this license are not expected to exceed 10% of the allowable limits in from either external or internal sources. However, to demonstrate compliance with the requirement the following program will be implemented:

6.1 External Radiation Monitoring.

- 6.1.1 Due to the low energy of the beta emission, Ni-63 is not an external radiation hazard. External monitoring is not effective for Ni-63 and will not be required.

6.2 Internal Radiation Monitoring – Bioassay.

- 6.2.1 Emergency bioassays will be performed in case of a spill involving release of more than 1 mCi of licensed material or for other possible intake in excess of 10% of the allowable limits.

7 Detector Cell or Device Sealed Source/Device Leak Test Procedure

7.1 Leak Testing Sealed Sources/Devices.

- 7.1.1 Perform the leak test following manufacturer's recommended procedure.

For Devices containing IMS cells this is usually accomplished using a swab to wipe the outside surface of the device or IMS cell (with particular attention to seams in the instrument case and any sample inlet), placing the swab in a seal sealing plastic bag, marking the bag with the device information.

An outside laboratory that is authorized to provide leak tests services in the event of unusual circumstances may be used. This is consistent with current means by which general licensees of these devices are currently obtaining leak tests.

- 7.1.2 Record the leak test in the log with the following information:

- Date
- Mfr, Model and Device Serial Number and Activity
- Name of Person collecting the Leak Test
- Results

- 7.1.3 Collect the leak test using the following procedure:

- Prepare a separate wipe sample (e.g., cotton swab or filter paper) for each source.
- Number each wipe to correlate with identifying information for each source.
- Wipe the most accessible area where contamination would accumulate if the sealed source was leaking.
- Analyze the leak test using liquid scintillation counting technique.

- Using the selected instrument, count and record background count rate.
- Check the instrument's counting efficiency using standard source of the same radionuclide as the source being tested or one with similar energy characteristics. Accuracy of standards should be within +/-5 percent of the stated value and traceable to a primary radiation standard such as those maintained by the National Institutes of Standards and Technology (NIST).
- Calculate efficiency.

For example:

$$[(\text{cpm std}) - (\text{cpm bkg})]/\text{std Bq} = \text{efficiency (cpm/Bq)}$$

where: cpm = counts per minute

std = standard

bkg = background

Bq = Becquerel

- Count each wipe sample; determine net count rate.
- For each sample, calculate and record estimated activity in Bq (or microcuries).
- For example: $[(\text{cpm from wipe sample}) - (\text{cpm from bkg})]/\text{efficiency in cpm/Bq} = \text{Bq on wipe sample}$
- Maintain the list of sources, data, and calculations, date performed and retain records for 5 years.
- Prepare a certificate of the leak test with signature and date as necessary
- If the wipe test activity is 185 Bq (0.005 microcurie) or greater, notify the Radiation Safety Officer so that the source can be withdrawn from use and disposed of properly.

8 Damaged Devices

8.6 Handling a damaged device.

- 8.6.1 Damaged devices should only be handled with written permission from the RSO.
- 8.6.2 Wear disposable protective gloves and coat if handling a damaged device.
- 8.6.3 Conduct a leak test of the device and submit for "emergency" analysis.
- 8.6.4 Place the damaged device in a clear 4-mil plastic bag. Close bag with plastic tie or nylon reinforced tape. The following information will be included on a tag (or equivalent) attached to the item.

- | |
|--|
| <ul style="list-style-type: none">• User's Name• Date• Activity (mCi)• Radionuclide (Ni-63) |
|--|

- | |
|--|
| <ul style="list-style-type: none">• Device (Mfr and Model) |
|--|

9 Disposal of Damaged Devices

9.1 Damaged devices (this is not normal for the proposed use) that requires disposal, will be transferred only to authorized recipients.

9.1.1 Authorized Recipients

- Licensed Radioactive Waste Broker (e.g.: RSO, Inc. Maryland License Number MD 33-021-02)
- Manufacturer/Distributor (e.g.: Smiths Detection-Toronto or Smiths Detection-Edgewood)

9.1.2 A copy of the license of the recipient will be obtained prior to transfer and records will be maintained of disposal of devices.

10 Procedures for Receipt, Inventory and Shipment

10.1 Receipt of radioactive materials Packages.

Instructions to Shipping and Receiving Personnel

10.1.1 Packages will be monitored and wipe tested as required by Maryland AC 26.12.01.01.

10.1.2 If the package appears to be damaged, immediately contact the RSO. Ask the carrier to remain at the facility until it can be determined that neither the carrier nor the vehicle is contaminated.

10.3 Procedure for Opening Packages Containing Radioactive Material.

10.3.1 Authorized Users and the RSO shall implement procedures for opening each package, as follows:

10.3.2 Visually inspect the package for any sign of damage (e.g. crushed or puncture). If damage is noted, stop and notify the RSO.

10.3.3 Check DOT White I, Yellow II, or Yellow III label and packing slips for activity of contents, to insure that the shipment does not exceed possession limits. Detectors containing Ni-63 should be shipped as Excepted Package Instrument or Article (Note: A DOT "Diamond" shaped label is NOT required).

10.3.4 Monitor the external surfaces of a labeled package according to the requirements in the following table:

Package	Contents	Survey Type	Survey Time
Labeled: White I,	Not Gas or Special Form Less than	Contamination	As soon as practicable but not less than 3

Yellow II, Yellow III	Type A Quantity		hours after receipt of package
Not Labeled	Licensed Material	None	None
Damaged	Licensed Material	Contamination and Radiation Level	As soon as practicable but not less than 3 hours after receipt of package

10.3.5 Open the outer package (following supplier's directions if provided) and remove packing slip. Notify the RSO of any problems or discrepancies.

10.3.6 Maintain records of receipt.

10.3.7 Notify the final carrier and by telephone or facsimile the when removable radioactive surface contamination or external radiation levels exceed the limits of 49 CFR.

10.4 Inventory Procedures.

10.4.1 Complete the top section of a Device Inventory Record.

10.4.2 When the device is ready for return to the customer, the Inventory Record will be updated. When the device is shipped the record will be forwarded to the RSO for file and the running inventory updated.

10.4.3 A physical inventory of all sealed source/devices will be performed at 6-month intervals. Records of this inventory will be maintained by the Radiation Safety Officer.

10.5 Procedure for Shipping Devices containing licensed material.

10.3.1 All shipments shall be performed by individual trained in accordance with DOT requirements for Haz Mat Shipper Training. See 49 CFR Part 172 Subpart H.

10.3.2 Detectors containing Ni-63 should be shipped as Excepted Package Instrument or Article (Note: A DOT "Diamond" shaped label is NOT required). The Hazardous Material identification number is placed on the outside of the shipping package. For Smiths Detection devices this ID number is UN 2911.

10.3.3 Visually inspect the package for any sign of damage (e.g. crushed or puncture). If damage is noted, stop and notify the RSO.

11 Security of Radioactive Material

11.1 Radioactive Material Sealed Source/Devices will be secured from unauthorized removal or access when in storage or in use.

11.2 The access to the posted areas will have locked doors or will have another suitable means to prevent removal of the licensed material by unauthorized personnel.

- 11.3 Visitors will be escorted when in posted areas and personnel have the right to challenge unfamiliar persons as to their identity and reasons for being in posted areas or laboratories.

12 Radiation Safety Training

12.1 Radiation Awareness Training.

- 12.1.1 All personnel (including housekeeping, maintenance and security) prior to assuming duties or frequenting areas where licensed material are used or stored will be given radiation awareness training. This training will include instructions on concerning the licensed use of radioactive material, personnel authorized to handle and use licensed material, use and storage locations, warning signs, warning labels, security of licensed material, and emergency procedures. The Radiation Safety Officer will present the training.
- 12.1.2 This training will be updated if there is a significant change in duties, regulations, the radiation safety program or its implementation or the terms of the license.

12.2 Radiation Safety Training for Sealed Source Device Service Personnel

- 12.2.1 Each person that performs service on devices containing licensed material must have received training in Radiation Safety. The training can be any combination of review of written materials, 1-on-1 training, viewing videotapes or classroom instruction. The following topics will be addressed:

Section I (General Awareness Topics)

1. Introduction.
Reason for training
2. Natural Background Radiation
Basic Radiation Physics
Biological Effects and Risks
3. Regulations, licenses, and Notice to Employees.
Organization for the control of radiation (Radiation Safety Officer and Program)
Authorized Users
Authorized Place of Use
4. Signs, labels for areas and storage units.
Label requirements for devices.

Section II

5. Servicing Procedures and Radiation Safety

Inventory and Control of Licensed Material
Conducting Leak Tests of Sealed Sources/Devices
Security of Licensed Material
Personnel Radiation Dosimetry

6. Shipping Radioactive Material
Excepted Package requirements
7. Emergency Procedures.
Response to Damaged Devices and/or
Suspected leakage of Ni-63

12.2.2 Training at another facility can be used to meet this requirement if a review of this Radiation Protection Program is provided. In addition, the RSO or his/her designate will review the service personnel's technique and procedures and offer critique and instruction as necessary in a "1-on-1 session". The RSO will document the class room and the 1-on-1 training.

12.2.3 The radiation safety training will be presented by the Radiation Safety Officer, a qualified instructor such as a Certified Health Physicist, academic institution or professional radiation safety consulting organization.

12.2.4 Re-fresher training (**annually**). The RSO will provide a refresher radiation safety training on the above listed topics. The training can be any combination of reading, 1-on-1 training, viewing video tapes or class room instruction. Lectures and written materials/examinations which are read and completed by radiation workers may also be used to complete the annual refresher training.

12.3 Qualifications and Training of the Radiation Safety Officer

12.3.1 The RSO will have a minimum of 3 months experience working with radioactive materials, and will receive specific training from the incumbent RSO OR attended a training class for Radiation Safety Officers.

12.3.2 Radiation Safety Officer will have completed the following formal training in the areas as required for users and the following:

- Review the license application, and license
- Review of specific Radiation Safety Program requirements (specifically Duties and Responsibilities of the RSO)
- Review past program reviews or audits and regulatory inspection results

13 Summary of the Radiation Safety Program

1. **Annual Audit (review) of the Radiation Safety Program.**

2. **Bi-Annual Radiation Safety Refresher Training.**
3. **Maintain radioactive material inventory and records.**
4. **Insure all devices have been leak tested within 6-months prior to their use or being serviced and maintain records of the leak tests.**
5. **Leak test devices prior to transfer.**
6. **Conduct and maintain records of Quarterly Use and Storage Inspections and Semi-Annual Physical Inventory.**
7. **Post "Radioactive Use" Areas/Rooms with appropriate "Caution Radioactive Material" signs.**
8. **Maintain records for decommissioning of license.**

5. Radioactive Materials

Isotope	Chemical or Physical Form	Maximum amount
Ni-63	Sealed Sources, Amersham Model NBC, and NRD Model N1001	15 mCi per source and 7.5 Ci total

6. Repair and servicing of the IONSCAN, Sabre, Sabre EXV, Sabre Centurian, Sabre Centurian II, Sentinel II, APD 2000, and MMTD devices that does not involve the IMS assemblies; instruction and training of individuals in the use of the devices; and for demonstrations at customer's facilities.

Licensed material shall be used 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, including areas of exclusive Federal jurisdiction within Agreement States. If the jurisdiction status of a Federal facility within an Agreement State is unknown, Smiths Detection Ijamsville will contact the Federal agency controlling the job site in question to determine whether the proposed job site is an area of exclusive Federal jurisdiction. Authorization for use of radioactive materials at job sites in Agreement States, not under exclusive Federal jurisdiction, shall be obtained from the appropriate state regulatory agency.

7. Individuals Responsible for the Radiation Safety Program and Their Training and Experience

The radiation safety officer for this license is Peter Wallace. Mr. Wallace is also the radiation officer for a Maryland issued radioactive materials license (MD-21-058-01).

Peter Wallace, Radiation Safety Officer

2010 - Present

Peter Wallace completed the Radiation Safety Officer Training and Advanced RSO Training from the Dade Moeller Radiation Safety Academy in 2009-2012; He has completed multiple Technical X-Ray and RadSeeker (Radiation Detection) training from Smiths Detection. Peter Wallace has HAZMAT DOT training, with certificate, from the Dade Moeller Radiation Safety Academy Division in March of 2010, and 49CFR/IATA/IMDG Radioactive Materials Training, with certificate, from DGI Training Center in October 2011. Peter Wallace has served as Radiation Safety Officer for Smiths Detection from June 2010 to present.

2005- Present

Peter Wallace has been a Smiths Detection trained service technician for the Centurion I and Centurion II systems since May of 2005.

As of November 2008, Peter Wallace has been the Product Specialist for the Centurion I and Centurion II line of IMS detection systems for Smiths Detection worldwide. His duties involve not only troubleshooting the systems, but in technical and operator training in the operation and repair of the systems. As of August 2011,

Peter Wallace has been the Product Specialist for the RadSeeker, NaI and LaBr radiation detection systems for Smiths Detection worldwide. His duties involve not only troubleshooting, but in technical and operator training in the operation and repair of this system.

1994 B.A. from the University of Pittsburgh

Memberships and Organizations

2011-Present Plenary Member of the Health Physics Society

8. Training for Individuals

Training is provided to employees that use radioactive sources. Users' will complete a 4-hour course in radiation safety to include the topics listed in the attached Radiation Safety Program.

9. Facilities and Equipment

At no time does Smiths Detection Ijamsville handle source material. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders. Therefore, no special facilities or equipment are required to ensure compliance with our license.

10. Radiation Safety Program

Please see the attached Radiation Safety Program.

11. Waste Management

Smith Detection will dispose of any unwanted radioactive sources by one of the following means:

- Return to the manufacturer.
- Transfer for disposal at a licensed disposal site using the services of a licensed radioactive waste broker or equivalent.
- Transfer sources to other licensed/authorized persons.

This is to acknowledge the receipt of your letter application dated

5/11/2012, and to inform you that the initial processing which includes an administrative review has been performed.

☒ New License Application (03038547)
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** 577472.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.