NRC FORM 313 (10-03-2022) 10 CFR 30, 32, 33, 34, 35, 36, 37, 39, and 40

U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR MATERIALS LICENSE

APPROVED BY OMB: NO. 3150-0120 **EXPIRES: 01/31/2023**

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, Library, and Information Collections Branch (T-6 A10M), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to Infocollects.Resource@nrc.gov, and the OMB Reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0120), Attn: Desk Officer for the Nuclear Regulatory Commission, 725 17th Street NW, Washington, DC 20503; e-mail: oira_submission@omb.eop.gov. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

INSTRUCTIONS: SEE THE CURRENT VOLUMES OF THE NUREG-1556 TECHNICAL REPORT SERIES ("CONSOLIDATED GUIDANCE ABOUT MATERIALS LICENSES") FOR DETAILED INSTRUCTIONS FOR COMPLETING THIS FORM: http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/. SEND TWO COPIES OF THE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

MATERIALS SAFETY AND TRIBAL LIAISON BRANCH
DIVISION OF MATERIALS SAFETY, SECURITY, STATE AND TRIBAL PROGRAMS
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:

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 RADIOLOGICAL SAFETY AND SECURITY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD, SUITE 102
KING OF PRUSSIA, PA 19406-1415
R1DRSSMail.Resource@nrc.gov
*Note: The preferred method to submit NRC Form 313 is e-mail. Any other document (e.g., financial assurance documents) should be sent via mail.

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
R3-DRSSMail.Resource@nrc.gov
*Note: The preferred method to submit NRC Form 313 is e-mail. Any other documents (e.g., financial assurance documents) should be sent via mail.

IF YOU ARE LOCATED IN:

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:

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
1600 E. LAMAR BOULEVARD
ARLINGTON, TX 76011-4511
r4licensingactionsubmittals@nrc.gov
*Note: The preferred method to submit NRC Form 313 is e-mail. Any other document (e.g., financial assurance documents) should be sent via mail.

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 06-19165-01

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include zip code)*

Fischer Technology Inc.
750 Marshall Phelps Road
Windsor, CT 06095

3. ADDRESS WHERE LICENSED MATERIALS WILL BE USED OR POSSESSED

Fischer Technology Inc.
750 Marshall Phelps Road
Windsor, CT 06095

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Ray Moncevicius

BUSINESS TELEPHONE NUMBER	BUSINESS CELLULAR TELEPHONE NUMBER
860-298-6073	n/a

BUSINESS E-MAIL ADDRESS
rmoncevicius@fischer-technology.com

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 FREQUENTING RESTRICTED AREAS.
9. FACILITIES AND EQUIPMENT.
10. RADIATION SAFETY PROGRAM.
11. WASTE MANAGEMENT.

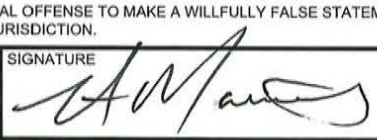
12. LICENSE FEES (Fees required only for new applications, with few exceptions*) *(See 10 CFR 170 and Section 170.31)*
***Amendments/Renewals that increase the scope of the existing license to a new or higher fee category will require a fee.**

FEE CATEGORY [ ] AMOUNT ENCLOSED $ [ ]

PER THE DEBT COLLECTION IMPROVEMENT ACT OF 1996 (PUBLIC LAW 104-134), YOU ARE REQUIRED TO PROVIDE YOUR TAXPAYER IDENTIFICATION NUMBER. PROVIDE THIS INFORMATION BY COMPLETING NRC FORM 531: https://www.nrc.gov/reading-rm/doc-collections/forms/nrc531info.html.

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	SIGNATURE	DATE
Ray Moncevicius RSO		10-17-22

FOR NRC USE ONLY

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

FISCHER TECHNOLOGY, INC.
750 Marshall Phelps Road
Windsor, CT 06095-2106
Phone: 860-683-0781
Fax: 860-688-8496

SECTION 5
RADIOACTIVE MATERIAL

ELEMENT AND MASS NUMBER OF ISOTOPE	CHEMICAL AND/OR PHYSICAL FORM	MAXIMUM AMOUNT WHICH WILL BE POSSESSED AT ONE TIME
STRONTIUM 90 GREEN	SEALED SOURCES FISCHER MODEL NUMBER C07.xx.xx Manufacturer: Helmut Fischer Gmbh Institut fur Elektronik und Messtechnik Industriestrasse 21 71069 Sindelfingen Germany	(.185MBq) 5 MICROCURIES PER SOURCE AND NOT TO EXCEED 2 MILLICURIES AT POSSESSED ONE TIME
PROMETHIUM 147 BROWN	SEALED SOURCES FISCHER MODEL NUMBER C07.xx.xx Manufacturer: Helmut Fischer Gmbh Institut fur Elektronik und Messtechnik Industriestrasse 21 71069 Sindelfingen Germany	(14.8MBq) 400 MICROCURIES PER SOURCE AND NOT TO EXCEED 180 MILLICURIES A POSSESSED AT ONE TIME
THALLIUM 204 ORANGE	SEALED SOURCES FISCHER MODEL NUMBER C7.xx.xx Manufacturer: Helmut Fischer Gmbh Institut fur Elektronik und Messtechnik Industriestrasse 21 71069 Sindelfingen Germany	(1.85MBq) 50 MICROCURIES PER SOURCE AND NOT TO EXCEED 30 MILLICURIES POSSESSED AT ONE TIME
CARBON 14 BLACK	SEALED SOURCES FISCHER MODEL NUMBER 600-493, 604-082 Manufacturer: Helmut Fischer Gmbh Institut fur Elektronik und Messtechnik Industriestrasse 21 71069 Sindelfingen Germany	(9.25 MBq) 250 MICROCURRIES and (3.70 MBq) 100 MICROCURRIES AND NOT TO EXCEED 20 MILLICURRIES POSSESSED AT ONE TIME

ACTIVITY PER SOURCE/ MAXIMUM ACTIVITY PER DEVICE ARE AS DEFINED IN SSD REGISTRY NUMBER NR-291-D-102-G.

FISCHER TECHNOLOGY, INC.
750 Marshall Phelps Road
Windsor, CT 06095-2106
Phone: 860-683-0781
Fax: 860-688-8496

SECTION 6
PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED

The purpose of all devices that are being distributed under Licence No. 06-19165-02G is for the use of measuring coating thickness.

Installation, Customer Training, Initial Radiation Surveys, Relocation, Removal from service, Disposal, Leak Test collection and analysis, Repair.

1. Installation/ Customer Training:
   Reference our Document GL-114 under Handling. All Fischerscope Beta Instruments, models 870, 2045, 2060 MMS & MMSPC, are shipped with a full operating instruments booklet. Upon receipt of instruments Fischer Technology personnel perform an on-site training seminar on operation of Fischerscope Beta Systems.

2. Relocation:
   Transfer of product is described in CFR 31.5. Fischer Technology personnel will perform a re-training seminar on all transferring of Fischerscope Beta Systems.

3. Removal from Service / Disposal:
   When an Isotope is no longer required by a customer on Fischerscope Beta Systems, Fischer Technology does provide Disposal Services as per our document GL-114 under Disposal. A Disposal Certification is supplied to the customer.

4. Leak Test collection and analysis:
   Reference Document GL-114 under Leak Testing. Leak Testing and Analysis will follow the model procedures in Appendix O. In accordance with NUREG -1556, Volume 18, "Consolidated Guidance About Materials Licenses Program-Specific Guidance About Service Provider Licenses"

5. Repairs:
   Repairs procedures will include the dismantling, alignment, routine maintenance, and repair of components to the radiological safety of Fischerscope backscatter thickness gauges.

LEAK TESTING OF SEALED SOURCES

1 Sealed sources containing greater then 100 micro curies shall be tested for leakage and or contamination at intervals not to exceed 6 months.

1. All sources will be kept in the storage cabinet unless undergoing Leak Testing, Stability, or Activity tests.
2. While Leak Tests are being made, the door to the lab will be kept closed and locked to prevent unnoticed entrances.
3. Only the Leak Testing Technician will be in the lab during the Leak Testing of Sources.
4. Smoking, eating, or drinking is not permitted in lab.
5. If appropriate, the following items will be worn when working with Isotopes: laboratory coat, gloves, and safety glasses.
6. All testing equipment is to be turned on for a minimum of one hour to assure temperature stability.
7. Personal ring badge to be worn at all times in the lab.
8. Place Survey Meter in working area and turn on to monitor any exposure.
9. Use Leak Test Work Sheet for Wipe Testing procedure see appendix C
10. All Leak Test forms are retained for 5 years.
11. Any wipe test activity greater than .005 Microcuires is disposed of under regulations and notification instructions from NRC.
12. All certifications for scalers, survey meters, and standards are all part of the Quality Control Program.

Repair: ____ Sale: ____ **Fischer Technology Inc.** Customer: _____

Stock: ____ Demo: ____

Leak Test Work Sheet

Isotope Type	Serial Number	Model Type	Background cpm	Efficiency in cpm/microcuries	cpm from wipe	Microcuries on Wipe	Retained for Disposal Y/N

1.) Prepare filter paper or cotton swab for wiping
2.) Wipe top portion of Fischer isotope cone/or other area that requires leak testing
3.) Use current certified Ludlum Model 1000 6 Decade scaler for wipe counts
4.) Count and record background count rate
5.) Using NIST traceable Beta Reference Disc Sources calculate efficiency using the following formula:

$$\frac{[(\text{cpm from std}) - (\text{cpm from bkg})]}{\text{Activity of std in } \mu\text{ci}} = \text{Efficiency in cpm/}\mu\text{ci}$$

Calculation Area:

Where: cpm = Counts per minute
Std = Standard
bkg = Background
μci = Microcuries

6.) Take average of 3 count rate wipes, determine net count rate:
_____ _____ _____ =_____average cpm from wipe
7.) Calculate micro curie on wipe sample using the following formula:

$$\frac{[(\text{cpm from wipe sample}) - (\text{cpm from bkg})]}{\text{efficiency in cpm/}\mu\text{ci}} = \text{Microcuries on wipe sample}$$

Calculation Area:

8.) Record all data
9.) If wipe test activity is greater than .005microcuries, the isotope needs to be withdrawn from use and disposed of.
10.) Ni_____ Au_____ Platen size_____

Leak Test Technician's Signature: _____ Date:_____

RV-F-9 1-02

FISCHER TECHNOLOGY, INC.
750 Marshall Phelps Road
Windsor, CT 06095-2106
Phone: 860-683-0781
Fax: 860-688-8496

SECTION 7
INDIVIDUALS RESPONSIBLE FOR RADIATION SAFTEY PROGRAM AND THEIR TRAINING EXPERIENCE

	Name	Title
I.	Robert Weber	Technical Director

Training and experience:

a. Presently employed at Fischer Technology with 17 years of experience
b. Course given at Helmet Fischer GMBH & Co. in Germany the course is entitled "Instruction Course in the Legal and Technical Use and Handling Radioactive Materials for use with Beta Backscatter Instruments".
   1. radioactive protection.
   2. radioactivity measurements, standardizations, monitoring techniques, and instruments.
   3. mathematics and calculations basic to the use and measurement of radioactivity.
   4. biological efforts of radiation.

II.	Raymond Moncevicius	Radiation Safety Officer/Operations Manager

Training and experience:

a. Completed course given by Helmet H. Fischer as described above.
b. Forty-two years on the job training with respect to Beta Backscatter thickness measuring devices and Radioactive Sources as follows: Leak Test Technician for Forty-two years, preparation of manuals quality control, radiation safety, biological effects of radiation, learning and implementing Nuclear Regulatory Commission laws and regulations.
c. Completed course from US Ecology Consultants on packaging and transportation of Radioactive Waste Material.

FISCHER TECHNOLOGY, INC.
750 Marshall Phelps Road
Windsor, CT 06095-2106
Phone: 860-683-0781
Fax: 860-688-8496

SECTION 8
TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS

All authorized Fischer Technology personnel, before using licensed material receive training on use of all Fischerscope Beta Systems.

1. Full review of Fischer Document GL-114 including all addendum CFR regulations.
2. Operating and Technical Data on Fischerscope Beta Systems.
3. Review of all procedures in Quality Control Operating System.
4. Training is proved to employees -Safety-XRF-Beta-Hazmat2 power point Presentation.

FISCHER TECHNOLOGY, INC.
750 Marshall Phelps Road
Windsor, CT 06095-2106
Phone: 860-683-0781
Fax: 860-688-8496

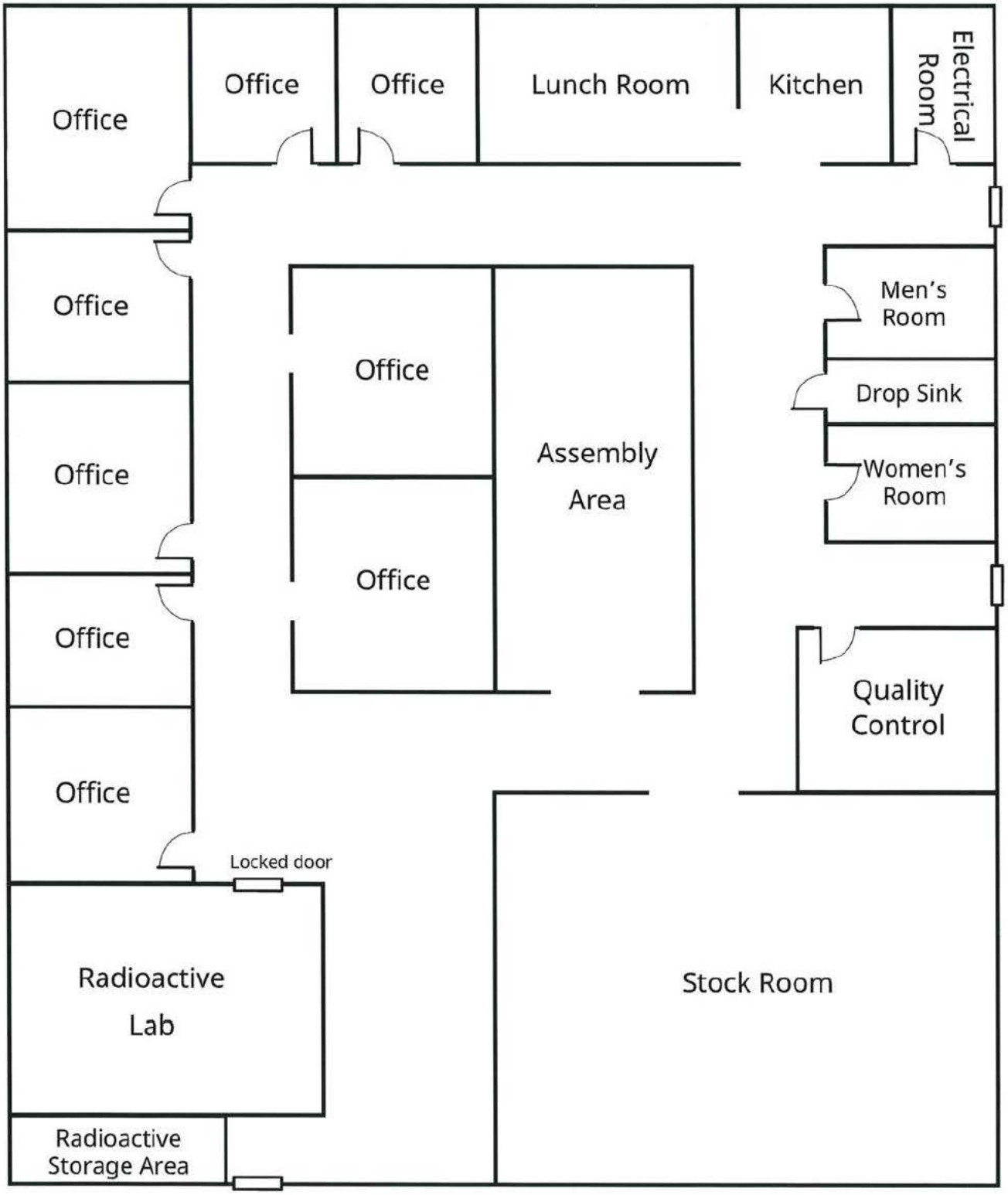
SECTION 9
FACILITIES AND EQUIPMENT

1. Instructions for the handling of Sealed Sources outside a shielded container. Refer to Document GL-114 under Handling.

2. Fischer Technology floor plan of radioactive leak test lab and storage area, layout enclosed.

3. All Sources are inventory items and stored in a secure room and locked cabinet in locked radioactive test lab.

Section 9 Radioactive Leak Test Lab and Storage Layout



FISCHER TECHNOLOGY, INC.
750 Marshall Phelps Road
Windsor, CT 06095-2106
Phone: 860-683-0781
Fax: 860-688-8496

SECTION 10
RADIATION SAFETY PROGRAM

- ***Audit program:***
  Scope -Review Fischer Technology Radiation Program
  Objectives-To assure that the Radiation Safety Officer fulfills the duties as specified in the license.
  All audit techniques fall under Fischer Quality Management system as part of our ISO 9001-2015 program see attached document Radiation Protection Audit Checklist.

- ***Radiation Monitoring Instructions:***
  Fischer Technology Inc. will use instruments that meet the Radiation Monitoring Instrument specifications. The following types of Meters are used Ludlum Model 3 survey meters and Ludlum model 1000 Scaler
  Each meter is part of our Quality Control Audit program for yearly re-certifications, enclosed a copy of independent certificate of calibration; we do reserve the right to upgrade our survey instruments as necessary.

- ***Material Receipt and Accountability:***
  All Fischer Isotope part numbers are monitored within Fischer inventory processes which shows the current status of all Fischer part numbers. A physical inventory is also performed every six months of all Isotopes in our SAP system and is also included in the yearly physical count of all Fischer inventory items.
  All Radioactive Material Orders has the RSO approval, using our purchasing procedures stated in our Quality Control Manual along with procedures for receiving and opening packages.

- ***Occupational Dose:***
  All individuals who work with Isotopes will be monitored with the criteria in Radiation Safety Program
  All employees who work with Isotopes wear Radiation detection rings see attached copy of radiation dosimetry report.
  We have done a prospective evaluation and determined that unmonitored individuals are not likely to receive, in one year, a radiation dose in excess of 10% of the allowable limits in 10CFR Part 20.

- ***Public Dose:***
  Address in 10CFR 20 Regulations.

- ***Safe use of Radionuclide's and emergency procedures:***

All Fischer personnel involved in radiological operations receive training in Safety-XRF-Beta-Hazmat2 power point Presentation. The training on safety is conducted by RSO before assuming duties, change in duties, and change in any regulations or terms of out license.

If a sealed Source is dropped, notify RSO immediately. RSO will conduct a Radiation Survey of the area to detect any stray radiation. If none is detected, a Leak Test will be performed to determine the integrity of the Sealed Source. If any stray radiation is detected this area will be sealed off and a complete cleanup will be conducted. In the event of fire, all hazardous materials are on file with local Fire Department.

- ***Surveys:***

  Fischer Technology Inc. will survey our facility and maintain contamination levels in accordance with the survey frequencies and contamination levels published in Appendix P of NUREG-1556 Vol. 12. See attached Work Area Radiation Survey Procedure and Survey Log.

  "We will perform contamination checks on all fabricated sealed sources prior to distribution. Leak tests will be performed at the intervals approved by NRC or an Agreement State and specified in the SSD Registration Certificate. Leak tests will be performed by an organization authorized by NRC or an Agreement State to provide leak testing services to other licensees or using a leak test kit supplied by an organization authorized by NRC or an Agreement State, to provide leak test kits to other licensees and according to the sealed source or plated foil manufacturer's (distributor's) and kit supplier's instructions. As an alternative, we will implement the model leak test program published in Appendix O to NUREG-1556, Vol. 18." Leak testing are performed as specified in SSD registration certificate see attached Operating Procedures for Leak Testing Lab.

- ***Transportation:***
  Fischer Technology complies with all NRC and DOT regulations.

- ***Minimization of Contamination:***
  N/A

Fischer Technology
Radiation Protection Audit Checklist

No.	Question	Confirmed	Comments
4.2.4	**Control of Records**		
	Have records been established and maintained to provide evidence of conformity to requirements and of the effective operation of the quality management system?		
	Has a documented procedure been established to define the following controls needed?		
a)	Identification?		
b)	Storage?		
c)	Retrieval?		
d)	Protection?		
e)	Retention time?		
f)	Disposition?		
5.3	**Quality Policy**		
	Has top management ensured that the quality policy:		
a)	Is appropriate to the purpose of the organization?		
b)	Includes a commitment to comply with requirements and to continually improve the effectiveness of the quality management system?		
c)	Provides a framework for establishing and reviewing quality objectives?		
d)	Is communicated and understood within the organization?		
e)	Is reviewed for continuing suitability?		
5.5	**Responsibility, Authority and Communication**		
5.5.1	**Responsibility and Authority**		
	Has top management ensured that responsibilities, authorities are defined and ***communicated*** within the organization?		
6.2	**Human Resources**		
6.2.2	**Competence, Training and Awareness**		
	Training program maintained		
	Training records maintained		
7.4	**Purchasing/Receiving/Inventory Control**		
	Receiving –Check procedure for receiving and opening packages containing Radioactive Material SR-W1-2		
	Six month inventory performed?		

No.	Question	Confirmed	Comments
	7.5 Production/ Shipping / Service / Radiation Safety Program Review duties of Radiation Safety Officer: a) Is there a Radiation Safety program in place?		
	b) Annual dose limits / radiation levels within regulatory limits as required per CFR part 20?		
	c) Leak test Performed / records maintained		
	d) Quarterly NRC reports processed and maintained, including reports of theft, loss, or incidents?		
	e) Internal surveys and logs maintained?		
	f) All transportation guidelines are meet and proper shipping paperwork supplied?		
	g) NRC-3 "Notice to Workers" is posted on Bulletin board including NRC emergency hot line number?		
	h) Is personnel radiation protection program in place? Exposure records maintained? Pregnancy records maintained?		
	7.6 Control of Measuring and Monitoring Devices Have processes been established to ensure that monitoring and measurement can be carried out in a manner consistent with the monitoring and measurement requirements? a) Calibrated or verified at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards; where no such standards exist, is the basis used for calibration or verification recorded?		
	b) Adjusted or re-adjusted as necessary?		
	c) Identified to enable the calibration status to be determined?		
	d) Safeguarded from adjustments that would invalidate the measurement result?		
	e) Protected from damage and deterioration during handling, maintenance and storage?		
	Are records of the calibration and verification results maintained?		

Certificate of Calibration

Atlantic Nuclear Corp. / 100 Weymouth St Unit E Rockland MA 02370
Tel (800) 878-9118 Fax (781) 878-3378

Customer Fisher Technology, Inc. Order No. AN86459

Mfg. Ludlum Model 3 Serial No. 83127

Mfg. Ludlum Model 44-9 Serial No. PR077184

Cal. Date 09/09/2022 Cal Due Date 09/09/2023 Cal interval 1 Year Meter face Analog

Check mark applies to applicable instrument and/or detector IAW mfg spec Temp 74.1 RH 46 Alt. in. Hg 29.74

☐ New Instrument Inst. received ☒ within toler +/- 10 % ☐ 10-20% ☐ Out of tol. ☐ Requiring Repair ☐ Other

Mechanical ck. ✓ Meter zeroed ✓

F/S Resp ck. ✓ Reset ck ✓

Audio ck. ✓ Alarm settings ck. Batt ck. ✓

Instrument Volt Set 900 V. input sens 25 mV Det Oper _____ _____ _____ = _____

Comments: 1 µCi Check Source S/N: 990 Reads 3 mR/hr (CONTROL #149)

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING
X0.1	100 cpm	100 cpm	100 cpm
X0.1	300 cpm	300 cpm	300 cpm
X1	600 µR/hr	600 µR/hr	600 µR/hr
X1	1.5 mR/hr	1.5 mR/hr	1.5 mR/hr
X10	5 mR/hr	5.5 mR/hr	5.5 mR/hr
X10	15 mR/hr	15 mR/hr	15 mR/hr
X100	50 mR/hr	50 mR/hr	50 mR/hr
X100	150 mR/hr	150 mR/hr	150 mR/hr

fM **Reference Instruments and/or Sources: Cs-137 Gamma S/N**

☐ Alpha S/N _____ ☐ Beta S/N _____ ☒ Mdl. 28-5 S/N: 10184 Cs-137

☒ m 500 S/N 54679 ☐ Gamma S/N MO-547 ☐ Mdl. 28-8 S/N: 10391 Cs-137

Calibrated by: Anthony Nguyen Date: 09/09/2022

All Calibrations are NIST traceable and compliant with ANSI/NCSL Z540-1-1994 and ANSI N323A-1997 with Atlantic Nuclear procedures unless otherwise stated. State of Massachusetts License number # 56-0477

Certificate of Calibration

Atlantic Nuclear Corp. / 100 Weymouth St Unit E Rockland MA 02370
Tel (800) 878-9118 Fax (781) 878-3378

Customer Fisher Technology, Inc. Order No. AN86459
Mfg. Ludlum Model 1000 Serial No. 37891
Mfg. Ludlum Model GM Probe Serial No. RN17559
Cal. Date 09/09/2022 Cal Due Date 09/09/2023 Cal interval 1 Year Meter face Digital
Check mark applies to applicable instrument and/or detector IAW mfg spec Temp 74.3 RH 45 Alt. in. Hg 29.74

☐ New Instrument Inst. received ☒ within toler +/- 10 % ☐ 10-20% ☐ Out of tol. ☐ Requiring Repair ☐ Other
Mechanical ck. ✓ Meter zeroed ✓
F/S Resp ck. Reset ck
Audio ck. Alarm settings ck. Batt ck. ✓

Instrument Volt Set 900 V. input sens 50 mV Det Oper _____ _____ _____ = _____

Comments: (CONTROL #167)

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING
Digital	100 cpm	100 cpm	100 cpm
	500 cpm	500 cpm	500 cpm
	1 kcpm	1,000 cpm	1,000 cpm
	5 kcpm	5,005 cpm	5,005 cpm
	10 kcpm	10,009 cpm	10,009 cpm
	50 kcpm	50,056 cpm	50,056 cpm
	100 kcpm	100,070 cpm	100,070 cpm
	500 kcpm	500,552 cpm	500,552 cpm
	Background	37 cpm	37 cpm
	Cs-137 Efficiency	14.46%	14.46%
	S/N: BA-8905		

ƒM Reference Instruments and/or Sources: Cs-137 Gamma S/N

☐ Alpha S/N _____ ☐ Beta S/N _____ ☐ Mdl. 28-5 S/N: 10184 Cs-137
☒ m 500 S/N 54679 ☐ Gamma S/N MO-547 ☐ Mdl. 28-8 S/N: 10391 Cs-137

Calibrated by: Anthony Nguyen **Date:** 09/09/2022

All Calibrations are NIST traceable and compliant with ANSI/NCSL Z540-1-1994 and ANSI N323A-1997 with Atlantic Nuclear procedures unless otherwise stated. State of Massachusetts License number # 56-0477

Work Area Radiation Survey Procedure

Frequency of Surveys

1.) Each work area listed on the log sheet will be surveyed at least once each month and will be performed by the radiation safety officer.

Equipment Requirements

1.) A survey meter as stated in our Radiation Safety Program will be used for the monitoring task. A meter with a valid calibration label shall be used for all surveys.

Record Keeping

1.) A survey log will be kept documenting the following:
   a.) The date the survey was conducted
   b.) The work area surveyed
   c.) The activity reading
   d.) The name of the person conducting the survey

Reporting Abnormal Readings

1.) Activity readings above normal background levels. A Corrective Action will be written on individuals involved, description of work area, work activity, calculated dose, probable cause, including root causes, steps to reduce future incidents of contamination, time, date, surveyor's name and signature.

(section10)

FISCHER TECHNOLOGY INC.
WORK AREA RADIATION SURVEY LOG

Page of

Date of Survey	Area	Reading	Survey Made By
	A1		
	A2		
	A3		
	A4		
	A5		
	A6		
	A7		
	A8		
	A9		
	A1		
	A2		
	A3		
	A4		
	A5		
	A6		
	A7		
	A8		
	A9		

Area Legend:

A1 - Leak Test Lab
A2- Storage Cabinet
A3- Disposal Cabinet
A4- Repair
A5- Receiving
A6- QC
A7- Demo Room
A8- Calibration
A9- Standards Lab

(Section10)

EQUIVALENT FORM 5 - ANNUAL

OCCUPATIONAL DOSE RECORD FOR A MONITORING PERIOD

This form is for use in place of certain reports required by NRC licensees, OSHA and state regulations.
It reflects data provided to or by your account and contains information for NRC Form 5 and other equivalent forms.

PREPARED BY

LANDAUER®

LANDAUER, Inc., 2 Science Road, Glenwood, Illinois 60425-1586
Telephone: (708) 755-7000 Facsimile: (708) 755-7016

ACCOUNT NUMBER	SUBACCOUNT	SERIES CODE	PARTICIPANT NUMBER
[redacted]	[redacted]	[redacted]	[redacted]

1. NAME (LAST, FIRST, MIDDLE INITIAL)	2. IDENTIFICATION NUMBER	3. ID TYPE	4. SEX	5. DATE OF BIRTH (MM/DD/YYYY)
[redacted]	[redacted]	[redacted]	[redacted] MALE FEMALE	[redacted]

6. MONITORING PERIOD (MM/DD/YYYY)	7. LICENSEE NAME	8. LICENSE NUMBER(S)	9A.	9B.
01/15/2021 - 01/14/2022	FISCHER TECHNOLO		☒ RECORD ☐ ESTIMATE	☒ ROUTINE ☐ PSE

INTAKES

10A. RADIONUCLIDE	10B. CLASS	10C. MODE	10D. INTAKE IN µCi

DOSES (in rem)

EFFECTIVE DOSE EQUIVALENT (FOR EXTERNAL EXPOSURES)	(EDEX)	11A.
DEEP DOSE EQUIVALENT (FOR THE ENTIRE MONITORING PERIOD)	(DDE)	11B.
LENS (EYE) DOSE EQUIVALENT	(LDE)	12.
SHALLOW DOSE EQUIVALENT, WHOLE BODY	(SDE, WB)	13.
SHALLOW DOSE EQUIVALENT, MAX EXTREMITY	(SDE, ME)	14. ND
COMMITTED EFFECTIVE DOSE EQUIVALENT	(CEDE)	15.
COMMITTED DOSE EQUIVALENT, MAXIMALLY EXPOSED ORGAN	(CDE)	16.
TOTAL EFFECTIVE DOSE EQUIVALENT (ADD BLOCKS 11A AND 15)	**(TEDE)**	17.
TOTAL ORGAN DOSE EQUIVALENT MAX ORGAN (ADD BLOCKS 11B AND 16)	**(TODE)**	18.

19. COMMENTS

PERMANENT TO DATE (IN REM)

DDE	:
LDE	:
SDE, WB	:
SDE, ME	: 0.202
TEDE	:

20. SIGNATURE - LICENSEE	DATE SIGNED (MM/DD/YYYY)	21. DATE PREPARED (MM/DD/YYYY)
		02/27/2022

FISCHER TECHNOLOGY, INC.
750 Marshall Phelps Road
Windsor, CT 06095-2106
Phone: 860-683-0781
Fax: 860-688-8496

SECTION 11
Waste Management

- *Waste Management.*
  All Fischer Technology Isotopes kept for disposal are retained in the Leak Test Laboratory, in a locked disposal cabinet. All records of disposal which include type, serial number, model number, activity level, customer, and disposal date are retained as a permanent record. When Fischer Technology performs a radioactive disposal shipment it is sent to an authorized facility. All appropriate paperwork is performed in accordance with NRC and DOT requirements. Fischer Technology Inc. has used the services of US Ecology for all disposal requirements to a disposal facility in the country.