

## NRC FORM 313

(05-2022)  
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 [Infocollections.Resource@nrc.gov](mailto:Infocollections.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: [oir\\_submission@omb.eop.gov](mailto:oir_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

## 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

## 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

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 13-25387-01

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

TSI Energy Solutions / Thermo-Scan Energy Management  
Corp.  
PO Box 705  
Carmel, IN 46082

## 3. ADDRESS WHERE LICENSED MATERIALS WILL BE USED OR POSSESSED

4650 Killarney Drive  
Carmel, IN 46033

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

Andrew McMullan

BUSINESS TELEPHONE NUMBER  
317-846-4655

BUSINESS CELLULAR TELEPHONE NUMBER

BUSINESS E-MAIL ADDRESS  
[amcmullan@tsienergysolutions.com](mailto:amcmullan@tsienergysolutions.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

Andrew McMullan, President

SIGNATURE

DATE

6/2/22

## FOR NRC USE ONLY

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



**Renewal of License No. 13-25387-01**

Thermo-Scan Energy Management Corporation  
DBA - TSI Energy Solutions

**5. Radioactive Material**

**Radioisotope:**  
Americium-241

**Manufacturer or Distributor Model No.:**  
Seaman R-50

**Quantity:**  
Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate

**6. Purpose(s) for Which Licensed Material Will be Used:**

Gauges are used for the purposes described in their SSD Registration Sheets (to measure physical properties of materials).

**7. Individual(s) Responsible for Radiation Safety Program and Their Training Experience:**

**Radiation Safety Officer:** Keith Fettig

The RSO has successfully completed a factory training course for the use of Seaman Nuclear Roof Moisture meters. Seminar content and the written examination covered radiological safety, regulatory requirements, theory and operation of nuclear meters, and initial HAZMAT training, encompassing regulations and correct procedures involved in the transport of nuclear density/moisture meters.

**8. Training for Individuals Working in or Frequenting Restricted Areas:**

Authorized users have successfully completed a factory training course for the use of Seaman Nuclear Roof Moisture meters. Seminar content and the written examination covered radiological safety, regulatory requirements, theory and operation of nuclear meters, and initial HAZMAT training, encompassing regulations and correct procedures involved in the transport of nuclear density/moisture meters.



## **9. Facilities and Equipment:**

Key issues are addressed under Item 10 below.

## **10. Radiation Safety Program:**

### **Survey Instruments:**

We either possess and use, or have access to and use, a radiation survey meter that meets the criteria in the section entitled "Radiation Safety Program – Instruments" in NUREG-1556, Vol. 1, Rev. 1, dated November 2001.

### **Material Receipt and Accountability:**

Physical inventories are conducted at intervals not to exceed 6 months, to account for all sealed sources and devices received and possessed under the license.

### **Occupational Dosimetry:**

We either maintain, for inspection by NRC, documentation demonstrating that unmonitored individuals are not likely to receive a radiation dose in excess of 10 percent of allowable limits in 10 CFR Part 20, or we provide dosimetry processed and evaluated by an NVLAP-approved processor that is exchanged at a frequency recommended by the processor.

### **Operating and Emergency Procedures:**

Operating and emergency procedures have been developed, implemented, and maintained and meet the criteria in the section entitled "Radiation Safety Program – Operating and Emergency Procedures" in NUREG-1556, Vol. 1, Rev. 1, dated November 2001.

### **Leak Test:**

Leak tests are performed at intervals approved by NRC or an Agreement State and specified in the Sealed Source and Device Registration Sheet. Leak tests are performed by an organization authorized by NRC or an Agreement State to provide leak testing services for 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 kit supplier's instructions.



**Maintenance:**

*Routine Cleaning and Lubrication:*

We maintain procedures for routine maintenance of our gauges according to the manufacturer's recommendations and instructions.

*Non-Routine Maintenance:*

We send the gauge to the manufacturer or other person authorized by NRC or an Agreement State to perform non-routine maintenance or repair operations that require the removal of the source or source rod from the gauge.

**11. Waste Management:**

No data is required at this time.