

(New)

August 5, 2013

CO9-35097-01)

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Licensing Assistance Team
Division of Nuclear Materials Safety
U.S. Nuclear Regulatory Commission, Region 1
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-2713

Br. 3

Attn: Licensing Department
Re: Application for New NRC License

AREHNA Engineering, Inc. has enclosed two (2) copies of the Application for Materials License (NRC Form 313) for your review, along with the requested attachments and a check in the amount of \$1,500.00 for the license application fee in accordance with fee category 3P.

Should you have any questions, or require additional information, please do not hesitate to contact me at your convenience.


Respectfully Submitted,
AREHNA Engineering, Inc.

Amanda S. P.
8/5/13

Amanda S. Pereira, PE
Senior Geotech/Materials Testing Engineer
Radiation Safety Officer

- Attachments: Appendix A
- Appendix B - NUREG – 1556, Col.1, Rev.1 checklist
 - RSO Resume and Certificate
 - Authorized Users Certificates
 - Copy of State License 4365-1
 - Letter of Recent State Inspection on 7/24/13

NRC FORM 313 U.S. NUCLEAR REGULATORY COMMISSION
 10 CFR 30.32, 33, 34, 41.31, 39, 41.40



APPLICATION FOR MATERIALS LICENSE

APPROVED BY OMB: NO. 3180-0120 EXPIRES: 08/31/2018

Estimate 1 hour per NRC form to complete with the mandatory duration request. 4.3 hours. Statement of the applicant is necessary to determine if the applicant is qualified and that screening procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Information Services Branch (Y-6 P&S), U.S. Nuclear Regulatory Commission, Washington, DC 20545-0001, or by e-mail to omb@nrc.gov. Send to the Desk Officer, Office of Information and Regulatory Affairs, 4201-1320, (2150-0720), Office of Management and Budget, Washington, DC 20503. If a means used to employ 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 20545-0001

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
 2700 RENAISSANCE BOULEVARD, SUITE 100
 KING OF PRUSSIA, PA 19406-2713

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
 2423 WARRENVILLE ROAD, SUITE 210
 Lisle, IL 60532-1362

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, KENTUCKY, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH CAROLINA, 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
 3600 E. LAMAR BOULEVARD
 ARLINGTON, TX 76010-4511

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 box):

A. NEW LICENSE

B. AMENDMENT TO LICENSE NUMBER _____

C. RENEWAL OF LICENSE NUMBER _____

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

AREHNA Engineering, Inc.
 5012 W. Lemon Street,
 Tampa, FL 33609

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Temporary job sites within NRC Jurisdiction

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Amanda S. Pereira

BUSINESS TELEPHONE NUMBER: (813) 944-3464
 BUSINESS CELLULAR TELEPHONE NUMBER: (813) 267-2823

BUSINESS EMAIL ADDRESS: apereira@arehna.com

SUBMIT ITEMS THROUGH 15 ON 8 1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

6. RADIOACTIVE MATERIAL

a. Estimate and mass number, chemical and physical form, and a minimum amount which will be possessed at any one time.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS

10. RADIATION SAFETY PROGRAM

12. LICENSE FEES (Fees required only for new applications, with few exceptions) (See 10 CFR 179 and Section 179.31)

5. PURPOSES FOR WHICH LICENSED MATERIAL WILL BE USED

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE

9. FACILITIES AND EQUIPMENT

11. WASTE MANAGEMENT

FEE CATEGORY: 3P
 AMOUNT ENCLOSED: \$ 1,500.00

13. CERTIFICATE (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 EXECUTES THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMANCE WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 36, 39, 38, 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 APR 29, 1961 OR 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 - TYPE PRINTED NAME AND TITLE

Jessica A. McRory, President

SIGNATURE

Jessica McRory

DATE

8/13/2013

FOR NRC USE ONLY

TYPE OF FEE	FEE CODE	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS

APPROVED BY: _____ DATE: _____

APPENDIX A - Additionally requested items:

5. RADIOACTIVE MATERIAL

- a. Element and mass number
- b. Chemical and/or physical form
- c. Maximum amount that will be possessed at any one time

<u>Cs-137</u>	Sealed Source: Troxler Dwg # 102112 Models 3400 series CPN/Instrotek Models MC-1, MC-3, Xplorer 3500	<u>8 sources, max. of 10 millicuries each for a total of 80 millicuries</u>
<u>Am-241:Be</u>	Sealed Source: Troxler Dwg # 102112 Models 3400 series CPN/Instrotek Models MC-1, MC-3, Xplorer 3500	<u>8 sources, max. of 50 millicuries each for a total of 400 millicuries</u>

6. PURPOSE FOR WHICH LICENSED MATERIAL WILL BE USED

CS-137 and AM-241: Be to be used in Troxler Models 3400 series and/or CPN/Instrotek Models MC-1, MC-3, Xplorer 3500 for measurement of physical properties of materials.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.

Amanda S. Pereira, PE – Radiation Safety Officer See attached resume and RSO certificate



APPENDIX B

ITEMS 5 AND 6: MATERIALS TO BE POSSESSED AND PROPOSED USES

Yes	No	Radioisotope	Manufacturer or Distributor Model No.	Quantity	Use As Listed on SSD Certificate	Specify Other Uses Not Listed on SSD Certificate
X		Cesium-137	Sealed source manufacturer or distributor and model number: <u>X 1218</u> <u>QSA Global, Inc.</u> Device manufacturer or distributor and model number: <u>CPN/Instratek</u> <u>Models MC-1, MC-3, Xplorer 3500</u> <u>Troxler Dwg# 102112</u> <u>models 3400 series</u>	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate <u>Total : 3 gauges</u>	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <u>Measurement of physical properties of materials</u>	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: (Submit safety analysis supporting safe use)
X		Americium-241	Sealed source manufacturer or distributor and model number: <u>models A71</u> <u>QSA Global, Inc. and X-1/Z</u> Device manufacturer or distributor and model number: <u>CPN/Instratek</u> <u>Models MC-1, MC-3, Xplorer 3500</u> <u>Troxler Dwg# 102112</u> <u>models 3400 series</u>	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate <u>Total : 3 gauges</u>	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <u>Measurement of physical properties of materials</u>	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: (Submit safety analysis supporting safe use)

AREHNA Engineering, Inc.

B-1

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APPENDIX B

Yes	No	Radioisotope	Manufacturer or Distributor Model No.	Quantity	Use As Listed on SSD Certificate	Specify Other Uses Not Listed on SSD Certificate
	X	Californium-252	Sealed source manufacturer or distributor and model number: _____ Device manufacturer or distributor and model number: _____	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	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)
	X	Other Isotope (Specify):	Sealed source manufacturer or distributor and model number: _____ Device manufacturer or distributor and model number: _____	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	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)
<i>Financial Assurance Required and Evidence of Financial Assurance Provided</i>						

AREHNA Engineering, Inc.

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: <i>Amanda Pereira</i></p>	<p>Before obtaining licensed materials, the proposed RSO will have successfully completed one of the training courses described in Criteria in the section entitled "Individual(s) Responsible for Radiation Safety Program and Their Training and Experience – Radiation Safety Officer" in NUREG-1556, Vol. 1, Rev. 1, dated November 2001.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<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 course described in Criteria in the section entitled "Training for Individuals Working In or Frequenting Restricted Areas" in NUREG-1556, Vol. 1, Rev 1, dated November 2001.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<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 and Emergency Procedures."</p>	<p>Separate Item 9 Response Need Not Be Submitted With Application</p>	
<p>10. RADIATION SAFETY PROGRAM – AUDIT PROGRAM</p>	<p>The applicant is <i>not</i> required to, and should not, submit its audit program to NRC for review during the licensing phase.</p>	<p>Need Not Be Submitted With Application</p>	
<p>10. RADIATION SAFETY PROGRAM – TERMINATION OF ACTIVITIES</p>	<p>The applicant is <i>not</i> required to submit a response to the termination of activities section during the initial application. However, when the license expires when the licensee ceases operation, NRC Form 314 must be submitted.</p>	<p>Need Not Be Submitted With Application</p>	
<p>10. 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 entitled "Radiation Safety Program – Instruments" in NUREG-1556, Vol. 1, Rev. 1, dated November 2001.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

AREHNA Engineering, Inc.

APPENDIX B

Item No. And Title	Suggested Response	Yes	Alternative Procedures Attached
10. RADIATION SAFETY PROGRAM – MATERIAL RECEIPT AND ACCOUNTABILITY	Physical inventories will be conducted at intervals not to exceed 6 months, to account for all sealed sources and devices received and possessed under the license.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. RADIATION SAFETY PROGRAM – OCCUPATIONAL DOSIMETRY	Either we will maintain, for inspection by NRC, documentation demonstrating that unmonitored individuals are not likely to receive a radiation dose in excess of 10 percent of the allowable limits in 10 CFR Part 20, or we will provide dosimetry processed and evaluated by an NVLAP-approved processor that is exchanged at a frequency recommended by the processor.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. RADIATION SAFETY PROGRAM – PUBLIC DOSE	The applicant is <i>not</i> required to submit a response to the public dose section during the licensing phase. This matter will be examined during an inspection.	Need Not Be Submitted With Application	
10. RADIATION SAFETY PROGRAM – OPERATING AND EMERGENCY PROCEDURES	<p>We will implement and maintain the operating and emergency procedures in Appendix H of NUREG-1556, Vol. 1, Rev. 1, dated November 2001, and provide copies of these procedures to all gauge users and at each job site.</p> <p style="text-align: center;">OR</p> <p>Operating and emergency procedures will be developed, implemented, and maintained and will meet the criteria in the section entitled “Radiation Safety Program – Operating and Emergency Procedures” in NUREG-1556, Vol. 1, Rev. 1, dated November 2001.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
10. RADIATION SAFETY PROGRAM – LEAK TEST	Leak tests will be performed at intervals approved by NRC or an Agreement State and specified in the Sealed Source and Device Registration Sheet. Leak tests will be 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.	<input checked="" type="checkbox"/>	<input type="checkbox"/> The information in Appendix J supporting a request to perform leak testing and sample analysis is attached.

AREHNA Engineering, Inc.

APPENDIX B

Item No. And Title	Suggested Response	Yes	Alternative Procedures Attached
10. RADIATION SAFETY PROGRAM - MAINTENANCE	<p><i>Routine Cleaning and Lubrication</i></p> <p>We will implement and maintain procedures for routine maintenance of our gauges according to each manufacturer's recommendations and instructions.</p> <p><i>Non-Routine Maintenance</i></p> <p>We will 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.</p>	<p>✗</p> <p>✗</p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p>The information listed in Appendix G supporting a request to perform non-routine maintenance in-house is attached.</p>
10. RADIATION SAFETY PROGRAM - TRANSPORTATION	The applicant is <i>not</i> required to submit its response to transportation during the licensing process. However, 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 to waste management during the licensing process. However, the licensee should develop, implement, and maintain gauge transfer and disposal procedures in its radiation protection program.		Need Not Be Submitted With Application

AREHNA Engineering, Inc.

Nuclear Gauge Operator
Safety Training
This Is To Certify

Amanda Pereira

has successfully completed an eight hour Nuclear Gauge Operator Safety Training course as required by the United States Nuclear Regulatory Commission and the Agreement States. The course included instruction in the fundamentals of correct and safe use of the portable nuclear moisture density gauges, including HAZMAT requirements. Included in the course was:

Atomic Physics
ALARA
Personal Monitoring
Shipping
Measurement Theory

Radiation Safety
Dose
Regulations
Storage
Calibration

Radiation Effects
Shielding
Transportation
Accident
Maintenance

OSCS, Inc.
Texas License Number LO5813

Date: 08/06/2008

Certificate No. 080608A

Instructor: Steven James

RETAIN A COPY FOR REVIEW BY REGULATORY AGENCY

APNGA
Certificate of Completion
This confirms that

Amanda Pereira of MC Squared, Inc.

has successfully completed the license required company

Annual Audit

on this day

Friday, September 17, 2010

American Portable Nuclear Gauge Association (APNGA)
www.apnga.com


George E. Marshall
APNGA Director

HAZMAT Certification

as required by U.S. DOT and IATA

This certifies that

Amanda S. Pereira

has been trained and tested in accordance with the U.S. Department of Transportation and International Air Transport Association (IATA) hazardous material requirements for general awareness/familiarization, function-specific, safety, and security awareness training as related to the transportation of nuclear gauges. A description of the training course materials is available from Troxler Electronic Laboratories, Inc.

Training Date
May 21, 2008

Expiration Date
3 years from date of class

Instructor
Robert Joines



Troxler Electronic Laboratories, Inc.
PO Box 12057 • 3008 Cornwallis Road • Research Triangle Park, NC 27709
Phone: (919) 549-8661 • Fax: (919) 549-0761 • www.troxlerlabs.com

Hazmat Employer Certification

Company:

Company Official: _____ *Date:* _____

Enrollment ID: 12028563