



WAUPACA FOUNDRY, INC.
1955 Brunner Drive
P.O. Box 249
Waupaca, WI 54981
PHONE (715) 258-6611
WEB WaupacaFoundry.com

March 19, 2013

Materials Licensing Branch
U.S. Nuclear Regulatory Commission, Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

SUBJECT: Materials License Renewal Application No. 48-15031-01

Dear Sir/Madam:

Enclosed please find an application for renewal of Material License no. 48-15031-01.

The following are responses to items 5 - 11 on the enclosed NRC Form 313:

5. All gauges contain Cs-137. Elements, physical forms, and maximum amounts remain the same as described in the existing Material License No. 48-15031-01 (Amendment #16).

6. Waupaca Foundry Plant 5 incorporates four Cesium-137 level gauges for level measurement within cupola-type iron melting units. The gauges are mounted two on each cupola. The gauges are placed in such a manner to facilitate the measurement of high and low levels of scrap metal to be melted within the cupola. The low level gauge ensures there is an adequate quantity of scrap within the cupola to optimize the operation of the emission control system, while the high level gauge simply prevents cupola run over and associated hang-ups with the charge bucket scrap additions. Both gauges are wired into alarm indicators which are displayed to the cupola operator within the Melt Control Room.

The gauges function by emitting a narrow gamma beam from the source head which is projected through the cupola to the receiving head or detector. Scrap metal material within the path of the beam will act as partial shielding, diminishing the response to the detector side of the gauge and thus notifying the operator of the scrap metal level. All four gauges are manufactured, installed, and serviced by ThermoFisher Scientific.

7. The Corporate Radiation Safety Officer is Bryant Esch. The Plant 5 Radiation Safety Officer is Gary Greubel. Each Radiation Safety Officer has received 24 - 40 hours of training in a radiation safety training course designed for personnel involved with industrial gauges. Each Radiation Safety Officer has been approved by the NRC as qualified and is denoted on the existing Material License.

8. Affected personnel, who include plant cupola repair crews and department electricians, have received awareness training relating to the hazards of industrial gauges and the proper

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procedures to be instituted when working near them. Locking/lockout procedures and emergency notification requirements are key components of the awareness level training.

Outside contractors with the potential of working within gauge usage areas will receive awareness level training which will include any content described above as is relevant to the work task and proximity to the gauge usage area. At a minimum, the training will include the hazards associated with industrial gauges, emergency notification requirements, and a warning that handling or manipulation of the gauge in any way is forbidden by Waupaca Foundry.

9. All gauges are placed in remote locations and are inaccessible to unauthorized individuals. The cupola gauges are mounted (bolted) directly to the exterior shell of the cupola, on the uppermost mezzanines which are isolated from any employee's daily workstation.

Security of the gauge facilities is provided by a combination of methods. Unauthorized individuals are denied entry by melt and maintenance personnel during all hours of operation. Guards perform daily/nightly facility rounds and are on-site at all times. Facility employees also maintain responsibility for facility security with a minimum crew retained during facility shutdowns.

All licensed nuclear gauges used by Waupaca Foundry are manufactured by ThermoFisher Scientific, and are designed with adequate shielding to contain the source material in a variety of harsh environments. Each gauge also incorporates a lead shutter mechanism which, when lowered, restricts the projection of the gamma beam from the "lens" of the gauge.

10. Waupaca Foundry has a Radiation Protection Program which covers all aspects of nuclear gauge use and safe operating practices. The program is regularly updated and available onsite for NRC review.

11. Due to the nature of on-site gauge usage, no routine radioactive waste materials are generated by Waupaca Foundry. If through some unforeseen circumstance a gauge had to be removed, ThermoFisher Scientific would be notified to remove and replace the unit.

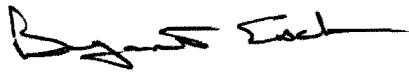
The following additional information has been provided using the attached Table B.2 from NUREG – 1556, Vol. 4:

- 7. All licensed materials (current or future) shall continue to be used by, or under the supervision of, Bryant Esch and Gary Greubel (page B-3).
- Acknowledgment of mandated activities have been entered on the attached Table B.2. Responses have been provided for:
 - 9. Facilities and Equipment (page B-4)
 - 10. Radiation Safety Program – Survey Instruments (page B-4)

- 10. Radiation Safety Program – Material Receipt and Accountability (page B-4)
- 10. Radiation Safety Program – Occupational Dosimetry (page B-4)
- 10. Radiation Safety Program – Operating & Emergency Procedures (page B-5)
- 10. Radiation Safety Program – Leak Test (page B-5)
- 10. Radiation Safety Program – Maintenance (page B-6)
- 10. Radiation Safety Program – Fixed Gauges Used at Temporary Job Sites (page B-6)

If you have any questions regarding this renewal submission, please feel free to contact Bryant Esch at 715-258-6674.

Sincerely,



Bryant Esch
Environmental Coordinator - Corporate RSO

cc: Norman Norton - ThermoFisher Scientific
Gary Greubel (RSO) - WFI
Rick Erickson - WFI

NRC FORM 313
(05-2012)
10 CFR 30, 32, 33,
34, 35, 36, 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 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.

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
2100 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
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 (Check appropriate item)

- A. NEW LICENSE
- B. AMENDMENT TO LICENSE NUMBER _____
- C. RENEWAL OF LICENSE NUMBER 48-15031-01

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

Waupaca Foundry, Inc.
P.O. Box 249
Waupaca, WI 54981

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Waupaca Foundry, Inc. - Plant 5
9856 State Road #66
Tell City, IN 47586

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Bryant Esch

BUSINESS TELEPHONE NUMBER (715) 258-6674	BUSINESS CELLULAR TELEPHONE NUMBER NA
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BUSINESS EMAIL ADDRESS

Bryant.Esch@waupacafoundry.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 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 (See 10 CFR 170 and Section 170.31)

FEE CATEGORY **3P** AMOUNT ENCLOSED \$ **0.00**

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

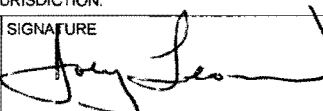
THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND 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

Joey Leonard - V.P. and Mgr of Human Resources

SIGNATURE



DATE

3-22-13

FOR NRC USE ONLY

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

Table B.2 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</p> <p>7.1 Radiation Safety Officer</p> <p>Name: <u>See Cover</u></p>	<p>Before obtaining licensed materials, the proposed RSO will have successfully completed the training 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. 4, dated October 1998.</p> <p style="text-align: center;">AND</p> <p>Before being named as the RSO, future RSOs will have successfully completed the training 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. 4, dated October 1998. Within 30 days of naming a new RSO, we will submit the new RSO's name to NRC to include in our license.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>7. Individual(s) Responsible For Radiation Safety Program And Their Training And Experience</p> <p>7.2 Authorized Users</p>	<p>PROPOSED AUTHORIZED USERS: <i>No new AUs proposed at this time.</i></p> <p>Before using licensed materials, authorized users will have successfully completed the training described in Criteria in the section entitled, "Authorized Users" in NUREG-1556, Vol. 4, dated October 1998.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>8. Training for Individuals Who in the Course of Employment are Likely to Receive Occupational Doses of Radiation in Excess of 1 mSv (100 mrem) in a Year (Occupationally Exposed Workers) and Ancillary Personnel</p>	<p>The applicant is <i>not</i> required to, and should not, submit is training program, for individuals who in the course of employment are likely to receive occupational doses of radiation in excess of 1 mSv (100 mrem) in a year (occupationally exposed workers) and ancillary personnel, to the NRC for review during the licensing phase.</p>	<p>Need Not Be Submitted with Application</p>	

APPENDIX B

Item No. and Title	Suggested Response	Yes	Alternative Procedures Attached
9. Facilities and Equipment	We will ensure that the location of each fixed gauge meets the Criteria in the section entitled "Facilities and Equipment" in NUREG-1556, Vol. 4, dated October 1998.	✓	[]
10. Radiation Safety Program - Audit Program	The applicant is <i>not</i> required to, and should not, submit its audit program to the NRC for review during the licensing phase.	Need Not Be Submitted with Application	
10. Radiation Safety Program - Survey Instruments	<p>Surveys pursuant to 10 CFR 20.1501 will be performed by a person specifically authorized by the NRC or an Agreement State to perform these surveys.</p> <p style="text-align: center;">OR</p> <p>We will use instruments that meet the Criteria in the section entitled "Radiation Safety Program - Instruments," in NUREG-1556, Vol. 4, dated August 1998, and <i>one</i> of the following:</p> <p style="padding-left: 40px;">Each survey meter will be calibrated by the manufacturer or other person authorized by the NRC or an Agreement State to perform survey meter calibrations.</p> <p style="text-align: center;">OR</p> <p>We will implement the model survey instrument calibration program in Appendix I to NUREG-1556, Vol. 4, dated October 1998.</p>	✓	[]
10. Radiation Safety Program - Material Receipt and Accountability	Physical inventories will be conducted at intervals not to exceed 6 months or at other intervals approved by the NRC, to account for all sealed sources and devices received and possessed under the license.	✓	[]
10. Radiation Safety Program - Occupational Dosimetry	We will perform a prospective evaluation demonstrating that unmonitored individuals are not likely to receive, in one year, a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20 or we will provide dosimetry that meets the Criteria in the section entitled "Radiation Safety Program - Occupational Dosimetry," in NUREG-1556, Vol. 4, dated October 1998.	✓	[]

Item No. and Title	Suggested Response	Yes	Alternative Procedures Attached
10. Radiation Safety Program - Public Dose	The applicant is not required to submit a response to the public dose section during the licensing phase. However, during NRC inspections, licensees must be able to provide documentation demonstrating, by measurement or calculation, that the total effective dose equivalent to the individual likely to receive the highest dose from the licensed operation does not exceed the annual limit for individual members of the public.	Need Not Be Submitted with Application	
10. Radiation Safety Program - Operating & Emergency Procedures	<p>If the gauge meets one or more of the safety conditions specified in "Discussion," in the section entitled "Radiation Safety Program-Operating Emergency Procedures," in NUREG 1556, Vol. 4, dated August 1998 state the following:</p> <p>Operating and emergency procedures will be developed, implemented, maintained, and distributed, and will meet the Criteria in the section entitled "Radiation Safety Program - Operating and Emergency Procedures," in NUREG-1556, Vol. 4, dated August 1998.</p> <p>For each gauge requested that does not meet one or more of the safety conditions specified in "Discussion," in the section entitled "Radiation Safety Program-Operating Emergency Procedures," in NUREG 1556, Vol. 4, dated August 1998 provide your operating, emergency and lock-out (if applicable) procedures to NRC for review.</p>	<p><input checked="" type="checkbox"/></p> <p><input type="checkbox"/> Procedures Attached</p>	<p><input type="checkbox"/></p>
10. Radiation Safety Program - Leak Test	<p>Leak tests will be performed at intervals approved by the NRC or an Agreement State and specified in the Sealed Source and Device Registration Certificate. 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.</p> <p style="text-align: center;">OR</p> <p>We will implement the model leak test program published in Appendix M to NUREG-1556, Vol. 4, dated October 1998.</p>	<p><input checked="" type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>

APPENDIX B

Item No. and Title	Suggested Response	Yes	Alternative Procedures Attached
10. Radiation Safety Program - Maintenance	<p><u>ROUTINE MAINTENANCE</u> We will implement and maintain procedures for routine maintenance of our fixed gauges according to each manufacturer's or distributor's written recommendations and instructions.</p> <p><u>NON-ROUTINE MAINTENANCE OPERATIONS</u> The gauge manufacturer, distributor or other person authorized by NRC or an Agreement State will perform non-routine operations such as installation, initial radiation survey, repair, and maintenance of components related to the radiological safety of the gauge, gauge relocation, replacement, and disposal of sealed sources, alignment, or removal of a gauge from service.</p>	<input checked="" type="checkbox"/>	<p style="text-align: center;">[]</p> <p>[] The information listed in Appendix N supporting a request to perform non-routing operations 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; this issue will be reviewed during inspection. However, the licensee should develop, implement, and maintain transportation procedures according to NRC and DOT regulations.	Need Not Be Submitted with Application	
10. Radiation Safety Program - Fixed Gauges Used at Temporary Job Sites	<p>This is not applicable to our program. We will not use fixed gauges at temporary job sites.</p> <p style="text-align: center;">OR</p> <p>We will develop, implement, maintain and distribute procedures that meet the Criteria in the section entitled "Radiation Safety Program - Fixed Gauges Used at Temporary Job Sites" in NUREG-1556, Vol. 4, dated October 1998.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/> Not Applicable</p> <p style="text-align: center;">[]</p>	<p style="text-align: center;">[]</p>
10. Radiation Safety Program - Minimization of Contamination	The applicant is not required to submit a response to minimization of contamination if the applicant's responses meet the criteria for the following sections: Radioactive Material - Sealed Sources and Devices, Facilities and Equipment, Radiation Safety Program - Operating and Emergency Procedures, Radiation Safety Program - Leak Testing, and Waste Management - Gauge Transfer and Disposal.	Need Not Be Submitted with Application	



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FIRST-CLASS MAIL
\$05.47⁹
ZIP 54981
011D11619525

