



RECEIVED
REGION 1

Alcoa Technology

Alcoa Technical Center
100 Technical Drive
Alcoa Center, PA 15069-0001 USA
Tel: 1 724 337 5300

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03006172

November 15, 2004

CERTIFIED MAIL

Materials Security and Industrial Branch
U.S. Nuclear Regulatory Commission, Region 1
475 Allendale Road
King of Prussia, PA 19406-1415
Attn: John Kinneman

Subject: Radioactive Materials License Renewal – License No. 37-07653-02

Dear Sir:

Enclosed for the Nuclear Regulatory Commission's (NRC) review and approval is Alcoa Technical Center's (ATC) request for renewal of its NRC materials license.

I would also like to request updated copies of the Sealed Source and Device Registration Certificates for ATC's sources/devices.

Should you have any further questions, please contact me by phone at 724-337-4056 or by e-mail at Ed.Peace@alcoa.com

Sincerely,

Johan E. Peace
Radiation Safety Officer
Alcoa Technical Center

Enclosures: NRC Form 313
Nureg-1556 Volume 4 Appendix B
Nureg-1556 Volume 7 Appendix D
RSO Training Documentation

cc: NRC License Amendment File

1 3 6 0 0 6

APPLICATION FOR MATERIAL LICENSE

Estimated burden per response to comply with this mandatory collection request: 7.4 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 Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0000), 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:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
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:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND,
MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA,
RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO
RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA,
SEND APPLICATIONS TO:

SAM MUNN ATLANTA FEDERAL CENTER
U. S. NUCLEAR REGULATORY COMMISSION, REGION II
61 FORSYTH STREET, S.W., SUITE 23T85
ATLANTA, GEORGIA 30303-8931

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.

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
801 WARRENVILLE RD.
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS,
LOUISIANA, 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 SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-6064

1. THIS IS AN APPLICATION FOR (Check appropriate item)

☐ A. NEW LICENSE

☐ B. AMENDMENT TO LICENSE NUMBER _____

☒ C. RENEWAL OF LICENSE NUMBER 37-07653-02

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

Alcoa Inc.
Alcoa Technical Center
100 Technical Drive
Alcoa Center, PA 15069-0001

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Alcoa Inc.
Alcoa Technical Center
100 Technical Drive
Alcoa Center, PA 15069-0001

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Johan E. Peace, RSO

TELEPHONE NUMBER

e-mail: Ed.Peace@Alcoa.com
ph: 724-337-4056, fax: 724-337-1854

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 N/A

AMOUNT ENCLOSED \$ N/A

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

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

Jamie K. Mackay

SIGNATURE

Jamie K. Mackay

DATE

11-12-04

FOR NRC USE ONLY

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

Nureg-1556 Volume 4 Appendix B

Items 5 & 6: Materials To Be Possessed and Proposed Uses

Radioisotope	Manufacturer Model No.	Serial Number	Quantity	Purpose for which Licensed Material is used.	Specify Other Uses Not Listed on SSD Certificate
Strontium-90	ABB Automation (AccuRay Guage) S-18/U-6	S-504-A	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	The fixed gauge(s) will be used for the purposes described on the SSD Registration Certificate(s), Device used for aluminum sheet thickness measurement	Not Applicable
	Fisher Beta Scope	42096		The fixed gauge(s) will be used for the purposes described on the SSD Registration Certificate(s), Device used for organic coating thickness measurement	Not Applicable
Thalium-204	Fisher Beta Scope	26354	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	The fixed gauge(s) will be used for the purposes described on the SSD Registration Certificate(s), Device used for organic coating thickness measurement	Not Applicable
Nickel-63	Sensidyne	Model 0130 HF/0-10 s/n 8620 Source s/n 87	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	The fixed gauge(s) will be used for the purposes described on the SSD Registration Certificate(s), Device used as Ion Mobility Spectrometer as an analytical HF detector.	Not Applicable

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>Johan E. Peace</u></p>	<p>The RSO has 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, and dated October 1998.</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, Alcoa will submit the new RSO's name to NRC to include in our license.</p>	<p>Yes</p>	
<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:</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>	<p>Yes</p>	
<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</p>	<p>The applicant is not required to, and should not, submit their 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</p>	<p>Need Not Be Submitted with Application</p>	

(Occupationally Exposed Workers) and Ancillary Personnel	licensing phase.		
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.	Yes	
10. Radiation Safety Program - Audit Program	The applicant is not 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>We will use instruments that meet the Criteria in the section entitled "Radiation Safety Program - Instruments," in NUREG-1556, Vol. 4, dated October 1998.</p> <p>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>	Yes	
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.	Yes	
10. Radiation Safety Program - Occupational Dosimetry	Alcoa will provide dosimetry that meets the Criteria in the section entitled "Radiation Safety Program - Occupational Dosimetry," in NUREG-1556, Vol. 4, dated October 1998.	Yes	
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	Need Not Be Submitted with Application	

	individual likely to receive the highest dose from the licensed operation does not exceed the annual limit for individual members of the public.		
10. Radiation Safety Program - Operating & Emergency Procedures	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 October 1998.	Yes	
10. Radiation Safety Program - Leak Test	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.	Yes	
10. Radiation Safety Program - Maintenance	<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.	Yes	
	<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	Yes	

	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.		
10. Radiation Safety Program - Transportation	The applicant is not 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	This is not applicable to our program. We will not use fixed gauges at temporary job sites.	Not Applicable	
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	
11. Waste Management - Gauge Disposal & Transfer	The applicant is not 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	

Radioisotope	Manufacturer Model No.	Serial Number	Quantity	Purpose for which Licensed Material is used.	Specify Other Uses Not Listed on SSD Certificate
Nickel-63	Hewlett-Packard G1223A	Source s/n F6130	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	The fixed gauge(s) will be used for the purposes described on the SSD Registration Certificate(s), Device used in gas chromatograph for PCB analysis	N/A
		Source s/n F6131			

D.6 ITEMS 7 THROUGH 11: TRAINING AND EXPERIENCE, FACILITIES AND EQUIPMENT, RADIATION SAFETY PROGRAM, AND WASTE DISPOSAL

Item No.	Title and Criteria Description	Yes	Description
7	<p>INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE</p> <p>RSO</p> <p>Name:</p> <p>Before obtaining licensed materials, the proposed RSO will have successfully completed the training described in Appendix D, in NUREG - 1556, Vol. 7.</p> <p>AND</p> <p>Before being named as the RSO, future RSOs will have successfully completed the training described in Appendix D, in NUREG - 1556, Vol. 7.</p>	<p>Yes</p> <p>Yes</p>	<p>The Radiation Safety Officer has successfully completed the required training, including a 40 hour Radiation Safety Officer Course at Thermo Electron Corporation in Austin, TX. See Attachment.</p>
8	<p>TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS</p> <p>Individuals working under the supervision of a responsible person</p>	N/A	

	named in item 7, above, are not required to have any specific radiation safety training prior to using a GC/XRF.		
9	FACILITIES AND EQUIPMENT Describe the facilities where GC/XRFs will be used and stored. Additional information regarding the use and storage of GC/XRFs at a temporary jobsite should also be included in the response.	GC is used in a permanent location and is mounted to a laboratory bench top. The laboratory is in a secured area which requires authorized access to enter the site.	
10	RADIATION SAFETY PROGRAM Audit Program The applicant is not required to, and should not, submit its audit program to the NRC for review during the licensing phase. Survey Instruments No survey instrument is required if proposed use involves neither the removal of sources from the device nor any maintenance and repair of a device that involves the source. OR If the applicant proposes to perform operations that involve the removal of sources from the device or maintenance and repair of a device that involves the source, we will possess or have access to a radiation survey meter that meets the requirements in the procedures for performing removal or repair of the sources. 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.	N/A	
		Yes	No maintenance is performed on equipment by Alcoa personnel. If maintenance is required, the manufacturer or other organizations properly licensed to perform maintenance activities will be employed.
		[]	
		Yes	Physical inventories are performed every 6 months.

10	RADIATION SAFETY PROGRAM (Cont'd) Occupational Dosimetry No personnel monitoring is required if proposed use does not involve the removal of sources from the device or any maintenance and repair of a device that involves the source. OR If the applicant proposes to perform operations that involve the removal of sources from the device or maintenance and repair of a device that involves a source (other than in gaseous form, H-3 or Ni-63), we will maintain, for inspection by NRC, documentation demonstrating that unmonitored individuals are not likely to receive a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20, or "we will provide dosimetry processed and evaluated by a NVLAP-approved processor that is exchanged at a frequency recommended by the processor."	Yes	Personal dosimetry is not performed for personnel who operate gas chromatographs.
	[]		
	Public Dose The applicant is not required to submit a response to the public dose section during the licensing phase. This matter will be examined during an inspection.	N/A	
	Leak Test Leak tests will be performed at intervals 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.	Yes	Leak tests are performed at intervals specified in the Sealed Source and Device Registration. Leak tests are performed using kits supplied by an organization authorized by the NRC.

	<p>RADIATION SAFETY PROGRAM (Cont'd)</p> <p>Maintenance If authorization has been requested to perform the maintenance and repair operations described in Item 7, state in the application that the written procedures provided by the device manufacturer will be followed for each such operation requested.</p> <p>OR If a procedure will be followed other than that provided by the device manufacturer, submit a proposed procedure to use for each operation</p> <p>Transportation The applicant is not required to submit its response to transportation during the licensing process; however, this issue will be reviewed during inspection.</p> <p>Minimization of Contamination The applicant is not required to submit a response to the minimization of contamination section if the applicant's responses meet the criteria for the following sections: "Radiation Safety Program - Leak Tests," "Facilities and Equipment," and "Waste Management."</p>	<p>[]</p> <p>[]</p>	
		N/A	
		N/A	
11	<p>WASTE MANAGEMENT GC/XRFs Disposal & Transfer The applicant is not required to submit a response to waste management during the licensing process. The licensee should, however, develop, implement, and maintain GC/XRF transfer and disposal procedures in its radiation safety program.</p>	N/A	

February 27, 2004

LETTER OF CERTIFICATION

This is to certify that Ed Peace of ALCOA has attended and successfully completed a 40-hour Industrial Radiation Safety Training course, conducted by Thermo Electron the week of February 23-27, 2004 and described in the attached course outline.

The course covers fundamentals of radiation, units of dose and quality of radiation fields, hazards of radiation exposure, detection devices, regulatory controls, industrial devices and specific training on installation and leak testing of TMT density, level, and weigh gauges. It is designed to meet the requirements of the Nuclear Regulatory Commission and Agreement States for Radiation Safety Officers at companies using industrial gauging devices.

This course is structured to qualify persons who complete it to understand and safely perform various operations involving nuclear devices including the installation, relocation, and leak testing of such equipment. The operations are to be performed in accordance with the rules and regulations of the United States Nuclear Regulatory Commission and/or Agreement States, and are in all respects subject to such rules and regulations.

This letter cannot be used in lieu of a specific license from, or other sanction by, an appropriate regulatory agency.

THERMO ELECTRON



Ralph S. Heyer
Corporate Radiation Safety Officer

Thermo Electron

Radiation Safety Officer Training Course Outline

Mathematics Review (4 hours)

- Basic Mathematical Concepts
- Exponential and Scientific Notation
- Basic Problem Solving
- Dose Calculations

Radiation Dose Units (1 hour)

- Roentgen
- Rad
- Rem
- Quality factor

Atomic Structure (1 hour)

- Bohr model
- Chart of Nuclides
- Nuclides and notation
- Isotopes

Types of Radiation (2 hours)

- Alpha
- Beta
- Gamma and X-ray
- Neutrons

Radioactive Decay (2 hours)

- Activity
- Decay schemes
- Decay law
- Half-life

Interaction of Radiation with Matter (4 hours)

- Ionizing vs. Non-ionizing
- Ionization and excitation
- Alpha, Beta, Gamma interactions
- Photoelectric, Compton, pair production
- Photon exposure rate; shield calculation
- Half-value layers

Shielding (4 hours)

- Time, distance, and shielding
- Inverse square law
- Linear and Mass Attenuation Coefficients

Biological Effects (4 hours)

- Internal Exposure to Radionuclides
- Physical/Chemical Mechanics of Injury
- Acute Radiation Injury
- Long Term Effects
- Genetic Effects
- Teratogenic Effects
- Carcinogenic Effects
- Background Radiation
- Risk Estimates

Regulatory Control (4 hours)

- Title 10 Code of Federal Regulations
- Agreement states
- Licensing and Compliance procedures,
- General and specific license
- User responsibility

Shipping Radioactive Material (2 hours)

- Packaging and Labeling
- IATA/ICAO
- Title 49 Code of Federal Regulations

Radiation Protection Program-ALARA (4 hours)

- ALARA statement
- Radiation Protection Program
- Operating, safety, and emergency procedures
- Compliance with dose limits
- Employee notification
- Record keeping
- Posting
- Reporting

Radiation Detection (2 hours)

- Fundamentals of detection
- Instrument characteristics, use, and limitations
- Survey meters

Personnel Monitoring (1 hour)

- Requirements
- Film badges, TLDs, etc.

Industrial (2 hours)

- Industrial device installation
- Surveying & leak testing demonstration
- Industrial applications

"Hands-On" (3 hours)

- Use of portable radiation survey meters
- Survey of a fixed gauge
- Preparation of survey form
- Leak test of devices

Closed book: Written Exam on Lectures and Homework Assignments (2 hours)

Note: A minimum 2 hours of homework is assigned each evening during the course.

Certificate of Training

This is to certify that

Johan E. Peace

Has Successfully Completed

A 40-Hour Radiation Safety Training Course

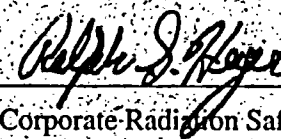
Presented by Thermo Electron

Date Issued: February 27, 2004

Thermo
ELECTRON CORPORATION

2555 North IH-35

Round Rock, TX 78664



Ralph Heyer, Corporate Radiation Safety Officer

Certificate of Training

This is to certify that

Johan E. Peace

Has successfully completed general awareness, function-specific, and safety training applicable to the transport of nuclear gauging devices, and has been tested on these subjects as required by 49CFR172 Subpart H.

Date Issued: February 27, 2004

Expires: February 27, 2007

Thermo
ELECTRON CORPORATION

2555 North IH-35

Round Rock, TX 78664


Ralph Heyer, Corporate Radiation Safety Officer

This is to acknowledge the receipt of your letter/application dated

November 15, 2004, and to inform you that the initial processing which includes an administrative review has been performed.

☒ 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. *Renewal*

☐ 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 136006.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

: (FOR LFMS USE)
: INFORMATION FROM LTS
: -----
:
: Program Code: 03120
: Status Code: 0
: Fee Category: 3P
: Exp. Date: 20041231
: Fee Comments: _____
: Decom Fin Assur Req'd: N
: ::

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: ALUMINUM COMPANY OF AMERICA
Received Date: 20041119
Docket No: 3006172
Control No.: 136006
License No.: 37-07653-02
Action Type: Renewal

2. FEE ATTACHED

Amount: _____
Check No.: _____

3. COMMENTS

Signed ② 11/23/04
Date _____

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /__/)

1. Fee Category and Amount: _____

2. Correct Fee Paid. Application may be processed for:

Amendment _____
Renewal _____
License _____

3. OTHER _____

Signed _____
Date _____