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Alcoa Technology

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

NMSB3

September 9, 2005

CERTIFIED MAIL

Licensing Assistance Team
Division of Nuclear Materials Safety
U.S. Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406-1415

03006172

Subject: License Amendment for NRC License: 37-07653-02

Dear Sir/Madam;

Enclosed for the Nuclear Regulatory Commission's (NRC) review and approval is Alcoa Technical Center's request for amendment of its NRC Materials License (37-07653-02)

Item 7. of amendment application: **INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.**

Do to changes in personnel, Alcoa requests consideration and approval of Michael J. McGarvey as Radiation Safety Officer. Training and experience criteria are provided in accompanying attachments. Mr. McGarvey has attended a 40 hour Radiation Safety Officer training course, has been involved in conducting radiation surveys and leak tests at ATC and has been trained in the operation and use of the Accuray beta gauge (Sr-90).

Should you have any questions please call me directly at (724) 337-5401.

Sincerely,

Jamie K. Mackay
Environmental, Health and Safety Manager
Alcoa Technical Center

Enclosures: Attachment 1 Form 313
Attachment 1A
Attachment 2 Training and Qualification Summary and Certificate
Attachment 3 Resume
Attachment 4 Training Certificates and Training Outline

cc: NRC License Amendment File

137675

NRC MATERIALS-002

NRC FORM 313

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0120

EXPIRES: 10/31/2005

(4-2004)

10 CFR 30, 32, 33,
34, 35, 36, 39, and 40

APPLICATION FOR MATERIAL LICENSE

Estimated burden per response to comply with this mandatory collection request: 7 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 and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@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:

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:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, MISSISSIPPI, 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
475 ALLENDALE ROAD
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

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 BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-4005

03006172

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 37-07653-02
☐ C. RENEWAL OF LICENSE NUMBER _____

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

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

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Alcoa Technical Center
100 Technical Drive
Alcoa Center, PA 15069

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Jamie K. Mackay, Environmental Health and Safety Manager

TELEPHONE NUMBER

(724) 337-5401

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 AMOUNT ENCLOSED \$

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

Jamie K. Mackay, Environmental Health and Safety Manager

SIGNATURE

Jamie K. Mackay

DATE

9-7-00

FOR NRC USE ONLY

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

137675

Attachment 1A
Amendment Application

Item No.	Title and Criteria	Description Attached
7.	<p>INDIVIDUAL RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING</p> <p>Radiation Safety Officer</p> <p>Michael J. McGarvey</p> <p>The specific training and experience is contained in the enclosed attachments.</p>	<p>Resume Attachment 3</p> <p>Training Certificate Attachment 4</p> <p>Specific Training and Qualification Summary Attachment 4</p>

Attachment 2
Amendment Application

Specific Training and Qualification Summary

The following table is provided to allow the reviewer additional detail as to the contents of the radiation safety training of the individual addressed in this amendment application for which the NRC does not have record.

Individual	Instructor	Subject Matter	Class Hours
Michael J. McGarvey	CSI – Radiation Safety Academy	Radiation Fundamentals	7
		Health Effects	2
		Radiation Protection Standards	3
		License Applications and Amendments	1
		External Dosimetry and Shielding	2
		Industrial Gauges and Sealed Sources	3
		Radiation Survey Instrumentation	4
		Radiation Safety Survey	5
		Interpreting Radiation Measurements and Quality Assurance	2
		Shipping and Receiving Radioactive Materials/DOT Requirements	2
		Transportation	3
		Radioactive Waste Management	2
		Radiation Safety Program Management	1
		Preparing for Regulatory Inspections, Emergency Response	2
	Jim Szalanski	Accuray Beta Gauge Training	4

Michael J. McGarvey

Cell Phone: [REDACTED]

Professional Objective: Obtain an Industrial Hygiene/Safety position that allows the utilization and growth of my professional experience and education.

Education: Indiana University of Pennsylvania (IUP). Indiana PA. 15701

- Bachelor of Science, July 1999
- Major – Industrial Health and Safety Sciences

Educational Experience:

January-March 1999 – Academic Internship, - Penreco, Karns City, PA. - (Petroleum Refining and Processing Plant) – Completed safety and health related assignments and provided research reports.

April-May 1999 - Academic Internship, - MSI Corporation, Vandergrift, PA. - (Steel Processing Plant) - Completed safety and health related assignments and provided research reports.

Work Experience:

May 2003 – Until Present -Alcoa Technical Center, Alcoa Center PA. -*IH Consultant Representing - Philotechics Ltd.*

Responsibilities include the following:

- Assist in Writing, Implementing and Maintaining Site Health Programs & Procedures (i.e. Respiratory Protection, Hearing Conservation, HazCom, Chemical Hygiene, Refractory Mgt. Asbestos Mgt. & TSCA) as well as training within these programs.
- Conduct New Material and Hazardous Material Reviews for Site Chemical Purchases in Conjunction with MSDS and Chemical Inventory Bar Coding Database
- Qualitative/Quantitative Exposure Assessment – Writing Interpretive Reports under the supervision of the Corporate CIH, Industrial Hygiene Database Maintenance, Communication, & Chemical Specific HazCom Training.
- Work in conjunction with engineering department to develop exposure control and cost feasibility studies as well as implementation of controls
- Assist Medical Department in Implementing Corporate Medical Surveillance Protocols and developing medical surveillance lists
- Conducted Corporate Environmental, Health and Safety Audit Preparation Using Alcoa Self Assessment Tool (ASAT) for multiple Facilities (Alcoa Technical Center, PA. Alcoa Corporate Center, PA. & Alcoa Sierra Micro Mill, NV.)
- Conducted Project Environmental Safety and Health Reviews (PESHRs) and Pre Job Planning for New Pilot Processes and R&D Projects.
- Complete quarterly Metric 5 IH Data Reporting
- Maintained Site Inventory and Record Keeping Requirements for TSCA R&D Exempt Materials. Provide consultation on the use of R&D Exempt materials
- Conduct Industrial and Office Ergonomic Assessments – provide recommendations and corrective actions to control MSDs and CTDs

Oct. 2001 – May 2003 -Alcoa Technical Center, Alcoa Center PA. - IH Consultant Representing - Richard A. Bui & Associates Inc.

Responsibilities include the following:

- Conducted Respiratory Protection Training and Fit Testing
- Conducted Hearing Conservation Training

**PERSONAL INFORMATION WAS REMOVED
BY NRC. NO COPY OF THIS INFORMATION
WAS RETAINED BY THE NRC.**

- Responsible for the Maintenance of HYGenius v1.8, HYGenius Q, and HYGenius v2 Databases
- Conducted Qualitative and Quantitative Exposure Assessments and assist in writing interpretative reports and recommendations for exposure controls
- Conducted Surveys and Inspections of X-Ray Producing Equipment and Leak Tests of Nuclear Sealed Sources
- Complete quarterly Metric 5 IH Data Reporting
- Conducted Indoor Air Quality and ventilation studie
- Maintained IH equipment inventory and calibration certificates

Nov. 1999 until Oct. 2001 - IH Consultant Representing - Industrial Health Foundation Inc.

Responsibilities include the following:

- Traveling to newly acquired Alcoa facilities in order to conduct Industrial Hygiene sampling (Howmet and Kawneer)
- Responsible for Conducting Plant Wide Personal Air and Noise Monitoring at Alcoa Technical Center.
- Assisted site Industrial Hygienist in conducting Qualitative Exposure Assessments at ATC
- Industrial Hygiene Data Base Development and Maintenance at ATC
- Conducted Respirator Fit Testing – ATC & Alcoa Research Laboratory – Specialty Metals Division
- Reviewed Job Safety Analysis / PPE Assessment forms
- Participated in Incident Investigations

Honors and Professional Organizations:

- 40 Hour OSHA General Industry Standards Course, 2005
- CSI Radiation Safety Academy, Gainesville Maryland 2001 – RSO Certificate
- American Society of Safety Engineers (ASSE 1999)

Computer Skills: Microsoft Word, Excel, Access, Power Point, HYGenius, Comply Plus - Dolphin

References: Available Upon Request

CSI - Radiation Safety Academy

Radiation Safety Officer

Class Selections for July 30-August 3, 2001

Instructors: Ray Johnson, CHP, PE, RSO; Alan Fellman, PhD, CHP; Sean Austin, CHP

This course is intended to provide a minimum of 40 hours of required and elective classes to meet provisions of 10 CFR 33.15. Required classes are already checked.

Please select at least six (6) hours of elective classes for a total of 40 or more hours.

Day 1					Monday		July 30, 2001	
Class Selected	Start Time	Class Titles (electives in <i>bold, italics</i>)					Class Hours	
<input checked="" type="checkbox"/>	8:00	Radiation Fundamentals					4.0	
	12:00	Lunch (provided)						
<input checked="" type="checkbox"/>	1:00	Radiation Fundamentals (continued)					3.0	
<input checked="" type="checkbox"/>	4:00	Health Effects					2.0	
	6:00	Adjourn						
Day 2					Tuesday		July 31, 2001	
Class Selected	Start Time	Class Titles (electives in <i>bold, italics</i>)					Class Hours	
<input checked="" type="checkbox"/>	8:00	Radiation Protection Standards, 10 CFR Part 19 and 20					2.0	
<input checked="" type="checkbox"/>	10:00	Essential Highlights of 10 CFR Part 2, 30, 31, 33					1.0	
<input checked="" type="checkbox"/>	11:00	<i>License Applications and Amendments - Research</i>					1.0	
<input type="checkbox"/>	11:00	<i>Medical Use Licensing, 10 CFR Part 35</i>					1.0	
	12:00	Lunch (provided)						
<input checked="" type="checkbox"/>	1:00	External Dosimetry and Shielding					2.0	
<input checked="" type="checkbox"/>	3:00	<i>Industrial Gauges and Sealed Sources</i>					3.0	
<input type="checkbox"/>	3:00	<i>Internal Dosimetry</i>					1.5	
<input type="checkbox"/>	4:30	<i>Legal Implications: Radiation Litigation</i>					1.5	
	6:00	Dinner Break						
<input type="checkbox"/>	7:30	<i>Radiation Risk Assessment</i>					1.5	
	9:00	Adjourn						

Day 3 Wednesday August 1, 2001

Class Selected	Start Time	Class Titles (electives in <i>bold, italics</i>)	Class Hours
<input checked="" type="checkbox"/>	8:00	Radiation Survey Instruments, Laboratory Instruments	4.0
	12:00	Lunch (provided)	
<input checked="" type="checkbox"/>	12:30	Instruments Lab, Applications & Troubleshooting, Leak Tests	3.0
<input checked="" type="checkbox"/>	3:30	<i>Radiation Safety Surveys</i>	2.0
<input type="checkbox"/>	3:30	<i>Effective Communications for the Radiation Safety Officer as a Manager and Instructor</i>	2.0
	5:30	Dinner Break	
<input type="checkbox"/>	7:00	<i>Radiation Safety Problem Solving</i>	1.5
	8:30	Adjourn	

Day 4 Thursday August 2, 2001

Class Selected	Start Time	Class Titles (electives in <i>bold, italics</i>)	Class Hours
<input checked="" type="checkbox"/>	8:00	Interpreting Radiation Measurements and Quality Assurance	2.0
<input checked="" type="checkbox"/>	10:00	Shipping and Receiving Radioactive Materials, DOT Training Requirements <i>EXAM for Certification</i>	2.0
	12:00	Lunch (provided)	
<input checked="" type="checkbox"/>	1:00	Transportation (continued), Transportation Exam	3.0
<input checked="" type="checkbox"/>	4:00	Radioactive Waste Management, Mixed Wastes, Waste Manifests	2.0
	6:00	Dinner Break	
<input checked="" type="checkbox"/>	7:30	<i>Course Review and Preparation for Final Exam</i>	1.5
	9:00	Adjourn	

Day 5 Friday August 3, 2001

Class Selected	Start Time	Class Titles (electives in <i>bold, italics</i>)	Class Hours
<input checked="" type="checkbox"/>	8:00	Radiation Safety Program Management	1.0
<input checked="" type="checkbox"/>	9:00	Preparing for Regulatory Inspections, Emergency Response, Information Resources, Challenges for RSO's	2.0
<input checked="" type="checkbox"/>	11:00	Final Exam (passing grade of 70% correct is required)	1.0
	12:00	Presentation of Certificates and Adjourn	

AAHP has awarded this course 32 Continuing Education Credits, 99-00-011
ABIH has awarded this course 4.5 CM Points, CM Approval #13421

Radiation Safety Officer

Certificate

Awarded to

Michael McGarvey

recognizing completion of 40 hours of specialized instruction

July 30-August 3, 2001

Presented By

CSI-Radiation Safety Academy
481 North Frederick Avenue, Suite 302
Gaithersburg, Maryland 20877

AAHP has awarded this course 32 Continuing Education Credits, 99-00-011
ABIH has awarded this course 4.5 CM Points, CM Approval #13421

Ray Johnson

Raymond Johnson, CHP, PE, RSO
Training Director



Certificate of Training

This Certifies That

Michael McGarvey

on August 2, 2001

has successfully completed the

DOT Training Requirements for Shipping & Receiving Radioactive Materials

Presented By

CSI-Radiation Safety Academy
481 North Frederick Avenue, Suite 302
Gaithersburg, Maryland 20877



Raymond Johnson, CHP, PE, RSO
Training Director



May 24, 2002

V. - gas arsen - ph 2-4-11-11
L. Rosato, C. Kelly & M. McGowan
8:00 am - noon

ACCURAY GAUGE TRAINING

RADIATION TYPES AND MAJOR INTERACTIONS WITH MATTER

Sr 90 – Y90 Radiation

X-Ray Radiation

Major Interactions

Causes of Measurement Error

Source Decay

Dirt Buildup

Air column Temperature

Standardization

Noise

Gauge Architecture and Component Functionality

Signal Processing

Electronics Cabinet and Component Boards

Junction Box

Source Head Components

Detector Head Components

Digital Display Module (DDM)

Accessing /changing data in Battery Protected Memory (BPM)

Safety Features

Shutter Mechanism

General Cautionary Information pertaining to Beta Gauges

Isodose curves for Beta Gauges

Example JSA for plant located nucleonic gauge

GAUGING LAB ACTIVITIES

Gauge Setup

X-Ray Tube Voltage and Current Ramp up

DDM – Digital Display Module

LCIMOD - Customer units

DISRAN – Display Resolution

Standardize (signal scaling)

Sample Check (sample measurement)

Calibration

Product Code Files (PCF)

EEPROM Blast Description

EMERGENCY PROCEDURES

Radiation Survey of Gauge Heads
Lock Tag and Try – Pneumatic Shutter
Checking Shutter Interlock Integrity
X-Ray Shut down Procedure
Electrical Shutdown of Beta and X-Ray Gauges

MAINTENANCE PROCEDURES

Gauge Window Inspection and Cleaning
Setting AIS Nominal and Window to Accommodate Radioactive Decay

REVIEW LOCK – OUT PROCEDURES

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

9/9/2005, and to inform you that the initial processing which includes an administrative review has been performed.

☒ AMEND. 37-07653-02
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.

☐ 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** 137675.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.