



**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**  
#7012 2920 0000 2036 5663

Union Carbide Corporation  
A Subsidiary of The Dow Chemical Company  
P.O. Box 8004  
437 MacCorkie Avenue, SW  
South Charleston, WV 25303  
USA

Q-2

(NEW)

June 10, 2015

(47-00260-03)

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RECEIVED JUN 16 15 15:00:57

U. S. Nuclear Regulatory Commission  
2100 Renaissance Boulevard, Suite 100  
King of Prussia, PA 19406-2713

**SUBJECT: U. S. Nuclear Regulatory Commission**  
**Application for Materials License (New)**  
**Union Carbide Corporation, Institute, WV**

Attached are two signed copies of the Application for Materials License for Union Carbide Corporation, a subsidiary of The Dow Chemical Company, Route 25, Institute, WV. Also, attached is a check in the amount of \$2,000.00 for the new license application fee.

Please contact Angela Williamson (304) 747-2251 if you have any questions.

Thank you.

Sincerely,

Jonathan M. Raess  
Responsible Care Leader  
West Virginia Operations

Attachments

587106



**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 FOIA, Privacy, and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to [Infocollects.Resource@nrc.gov](mailto: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. \*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 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 \_\_\_\_\_

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

UNION CARBIDE CORPORATION  
A SUBSIDIARY OF THE DOW CHEMICAL COMPANY  
429 MACCORKLE AVENUE  
SOUTH CHARLESTON, WV 25303

**3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED**

ROUTE 25  
INSTITUTE, WV 25211

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

ANGELA WILLIAMSON

**BUSINESS TELEPHONE NUMBER**

(304) 747-2251

**BUSINESS CELLULAR TELEPHONE NUMBER**

(304) 654-1304

**BUSINESS EMAIL ADDRESS**

ARWILLIAMSON@DOW.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 (Fees required only for new applications, with few exceptions\*) (See 10 CFR 170 and Section 170.31)**

FEE CATEGORY	03120	AMOUNT ENCLOSED \$	2,000.00
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**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**

Jonathan M. Raess

**SIGNATURE**

*Jonathan M. Raess*

**DATE**

6/10/2015

**Responsible Care Leader FOR NRC USE ONLY**

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

## **APPLICATION FOR MATERIALS LICENSE**

UNION CARBIDE CORPORATION  
A SUBSIDIARY OF THE DOW CHEMICAL COMPANY  
ROUTE 25  
INSTITUTE, WV 25211

5a. **RADIOISOTOPE**

Cesium 137

5b. **CHEMICAL AND/OR PHYSICAL FORM**

Sealed Source (Ohmart/Vega Model A-2102)

5c. **MAXIMUM AMOUNT WHICH WILL BE POSSESSED AT ANY ONE TIME**

1.6 Ci (59.2 GBq)

6. **PURPOSE(S) FOR WHICH LICENSING MATERIAL WILL BE USED**

Ohmart/Vega Model SH-F series fixed gauging devices for controlling industrial processes.

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

**Radiation Safety Officer**

Angela Williamson is the RSO and will be responsible for the Radiation Safety Program.

She completed Applied Health Physics training at Oak Ridge Associate Universities and Radiation Safety Officer training from Ohmart/Vega.

Before being named as the RSO, future RSOs will have successfully completed the training described in Criteria in the section entitled "Radiation Safety Officer," in NUREG-1556, Vol. 4, dated August 1998. Within 30 days of naming a new RSO, we will submit the new RSO's name to the NRC to include in our license.

**Proposed Authorized Users**

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.

8. **TRAINING FOR INDIVIDUALS WORKING IN OR REQUESTING RESTRICTED AREAS**

No individual is expected to receive an occupational dose of radiation in excess of 1 mSV (100 mrem) in a year. All employees that work in the unit where the gauges will be trained Radiation Awareness.

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, 'Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Fixed Gauge Licenses,' dated October 1998.

10. **RADIATION SAFETY PROGRAM**

**Survey Instruments**

We will use survey instruments that meet the Criteria in the section entitled 'Radiation Safety Program - Instruments' in NUREG-1556, Vol. 4, 'Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Fixed Gauge Licenses,' dated October 1998.

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.

**Materials 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.

**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.

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.

**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 August 1998.

**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.

### **Maintenance**

ROUTINE MAINTENANCE- 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.

NON-ROUTINE MAINTENANCE OPERATIONS- 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.

### **Fixed Gauges Used at Temporary Job Sites**

This is not applicable to our program. We will not use fixed gauges at temporary job sites.

## 11. **WASTE MANAGEMENT**

In the event that we no longer need the nuclear gauges, we will return them to the manufacturer for disposal.

This is to acknowledge the receipt of your letter application dated

6/10/15, and to inform you that the initial processing which includes an administrative review has been performed.

New License (03038844)  
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

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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** 587106.  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.