



The Chemical Company

Helping Make  
Products Better™

**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**  
**7005 3110 0003 0609 8818**

August 8, 2011

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

Subject: License Renewal Application  
License No. 21-00627-02

To Whom It May Concern:

Please find enclosed the Application for renewal of the BASF Wyandotte, Michigan Site Material License. This submittal contains NRC Form 313 and the required information for Items 5-11.

You can reach me at (734) 324-5282 or email me at [Derek.hetes@basf.com](mailto:Derek.hetes@basf.com) with any questions or concerns.

Sincerely,

Nancy L. Diem  
Administrative Assistant on Behalf of  
Derek Hetes/Radiation Safety Officer/EHS Team Member  
BASF-Wyandotte Site

RECEIVED AUG 12 2011



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**Table B.1 Items 5 & 6: Materials To Be Possessed and Proposed Uses**

| Yes | No | Radioisotope | Manufacturer<br>Model No.<br>(SSDR)   | Quantity | Use as Listed on<br>SSD Certificate   | Other uses<br>not listed<br>on SSD<br>Certificate |
|-----|----|--------------|---|----------|---|---|
| X   |    | Cesium-137   | Thermo Fisher<br>Scientific/ TN<br>Technologies<br>Model 5205A<br>(TX-0634-D-<br>142-B) | 5 mCi    | Yes[ x ]<br>Specific description of<br>the gauge use:<br><u>Used in Thermo Fisher<br/>Scientific/ TN<br/>Technologies level<br/>gauging system.</u> | [ x ] Not<br>applicable                           |
| X   |    | Cesium-137   | Thermo Fisher<br>Scientific/ TN<br>Technologies<br>Model 5205A<br>(TX-0634-D-<br>142-B) | 5 mCi    | Yes[ x ]<br>Specific description of<br>the gauge use:<br><u>Used in Thermo Fisher<br/>Scientific/ TN<br/>Technologies level<br/>gauging system.</u> | [ x ] Not<br>applicable                           |
| X   |    | Cesium-137   | Berthold<br>Technologies<br>Model<br>LB300LP (TN-<br>1031-D-104-B)                      | 50 mCi   | Yes[ x ]<br>Specific description of<br>the gauge use:<br><u>To be used in Berthold<br/>Technologies level<br/>gauging system.</u>                   | [ x ] Not<br>applicable                           |
| X   |    | Cesium-137   | Berthold<br>Technologies<br>Model<br>LB300LP (TN-<br>1031-D-104-B)                      | 50 mCi   | Yes[ x ]<br>Specific description of<br>the gauge use:<br><u>To be used in Berthold<br/>Technologies level<br/>gauging system.</u>                   | [ x ] Not<br>applicable                           |
| X   |    | Cesium-137   | Berthold<br>Technologies<br>Model<br>LB300LP (TN-<br>1031-D-104-B)                      | 50 mCi   | Yes[ x ]<br>Specific description of<br>the gauge use:<br><u>To be used in Berthold<br/>Technologies level<br/>gauging system.</u>                   | [ x ] Not<br>applicable                           |
| X   |    | Cesium-137   | Berthold<br>Technologies<br>Model<br>LB300LP (TN-<br>1031-D-104-B)                      | 50 mCi   | Yes[ x ]<br>Specific description of<br>the gauge use:<br><u>To be used in Berthold<br/>Technologies level<br/>gauging system.</u>                   | [ x ] Not<br>applicable                           |
| X   |    | Cesium-137   | Berthold<br>Technologies<br>Model<br>LB300LP (TN-<br>1031-D-104-B)                      | 50 mCi   | Yes[ x ]<br>Specific description of<br>the gauge use:<br><u>To be used in Berthold<br/>Technologies level<br/>gauging system.</u>                   | [ x ] Not<br>applicable                           |



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**Table B.1 Items 5 & 6: Materials To Be Possessed and Proposed Uses**

| Yes | No | Radioisotope | Manufacturer<br>Model No.<br>(SSDR)                               | Quantity  | Use as Listed on<br>SSD Certificate   | Other uses<br>not listed<br>on SSD<br>Certificate |
|-----|----|--------------|---|-----------|---|---|
| X   |    | Cobalt-60    | Berthold<br>Technologies<br>Model LB300L<br>(TN-1031-D-<br>104-B) | 0.459 mCi | Yes[ x ]<br>Specific description of<br>the gauge use:<br><u>To be used in Berthold<br/>Technologies level<br/>gauging system.</u> | [ x ] Not<br>applicable                           |
| X   |    | Cobalt-60    | Berthold<br>Technologies<br>Model LB300L<br>(TN-1031-D-<br>104-B) | 0.622 mCi | Yes[ x ]<br>Specific description of<br>the gauge use:<br><u>To be used in Berthold<br/>Technologies level<br/>gauging system.</u> | [ x ] Not<br>applicable                           |
| X   |    | Cobalt-60    | Berthold<br>Technologies<br>Model LB300L<br>(TN-1031-D-<br>104-B) | 0.459 mCi | Yes[ x ]<br>Specific description of<br>the gauge use:<br><u>To be used in Berthold<br/>Technologies level<br/>gauging system.</u> | [ x ] Not<br>applicable                           |
| X   |    | Cobalt-60    | Berthold<br>Technologies<br>Model LB300L<br>(TN-1031-D-<br>104-B) | 0.459 mCi | Yes[ x ]<br>Specific description of<br>the gauge use:<br><u>To be used in Berthold<br/>Technologies level<br/>gauging system.</u> | [ x ] Not<br>applicable                           |
| X   |    | Cobalt-60    | Berthold<br>Technologies<br>Model LB300L<br>(TN-1031-D-<br>104-B) | 0.459 mCi | Yes[ x ]<br>Specific description of<br>the gauge use:<br><u>To be used in Berthold<br/>Technologies level<br/>gauging system.</u> | [ x ] Not<br>applicable                           |
| X   |    | Cobalt-60    | Berthold<br>Technologies<br>Model LB300L<br>(TN-1031-D-<br>104-B) | 0.622 mCi | Yes[ x ]<br>Specific description of<br>the gauge use:<br><u>To be used in Berthold<br/>Technologies level<br/>gauging system.</u> | [ x ] Not<br>applicable                           |
| X   |    | Cobalt-60    | Berthold<br>Technologies<br>Model LB300L<br>(TN-1031-D-<br>104-B) | 0.459 mCi | Yes[ x ]<br>Specific description of<br>the gauge use:<br><u>To be used in Berthold<br/>Technologies level<br/>gauging system.</u> | [ x ] Not<br>applicable                           |



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**Table B.2 Items 7 through 10: Training, Experience, Facilities and Equipment and Radiation Safety Program**

|  | Training & Experience   | Yes   | Alternative Procedures Attached |
|--|---|-------|---------------------------------|
| 7. Individuals Responsible for Radiation Safety Program and Their Training Experience<br><br>7.1 Radiation Safety Officer: <b>Derek Hetes</b><br>Alternate: <b>Dan Hannewald</b> | The RSOs have completed Radiation Safety Training consistent with criteria in NUREG-1556 Vol. 4, October 1998.<br><br><b>AND</b><br>Before being named RSO, future RSO's will have successfully completed training consistent with criteria in NUREG-1556 Vol. 4, 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. | [ X ] | [ ]                             |
| 7. Individuals Responsible for Radiation Safety Program and Their Training and Experience<br><br>7.2 Authorized Users  | PROPOSED AUTHORIZED USERS:<br><br>Before using licensed materials, authorized users will have successfully completed the training described in Criteria in the section titled Authorized Users in NUREG-1556, Vol. 4 dated October 1998.  | [ X ] | [ ]                             |
| 8. Training for Individuals in the Course of Employment are Likely to Receive doses in Excess of 100 mRem/ yr  | BASF Wyandotte Site employees who in the course of employment are likely to receive occupational doses of radiation in excess of 1 mSv (100 mrem) in a year shall receive training according to 10 CFR 19.12.   | [ X ] |                                 |
| 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.  | [ X ] | [ ]                             |
| 10. Radiation Safety Program - Survey Instruments  | We will use instruments that meet the Criteria in the section entitled "Radiation Safety Program - Instruments" in NUREG-1556, Vol. 4 dated October 1998 and 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.   | [ X ] | [ ]                             |
| 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.   | [ X ] | [ ]                             |

## NRC FORM 313

(10-2005)  
10 CFR 30, 32, 33,  
34, 35, 36, 39, and 40

## U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0120

EXPIRES: 10/31/2008

Estimated burden per response to comply with this mandatory collection request: 4.4 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 and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to [infocollects@nrc.gov](mailto: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.

## APPLICATION FOR MATERIALS LICENSE

**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, 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, 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  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TX 76011-4005

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 **21-00627-02**

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

**BASF Corporation**  
**1609 Biddle Ave.**  
**Wyandotte, MI 48192**

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

**BASF Corporation**  
**1609 Biddle Ave.**  
**Wyandotte, MI 48192**

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

**Derek Hetes**

TELEPHONE NUMBER

**(734) 324-5282**

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 **NA** AMOUNT ENCLOSURE **\$ 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.

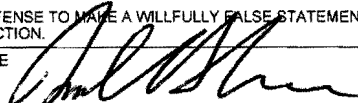
THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND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

**Derek Hetes/ Site Radiation Safety Officer**

## SIGNATURE



## DATE

**08/05/2011**

## FOR NRC USE ONLY

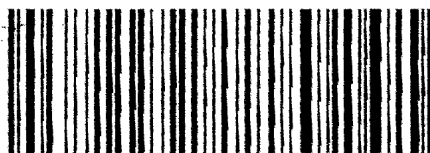
| TYPE OF FEE | FEE LOG | FEE CATEGORY | AMOUNT RECEIVED | CHECK NUMBER | COMMENTS |
|-------------|---------|--------------|-----------------|--------------|----------|
|             |         |              | \$              |              |          |
| APPROVED BY |         |              |     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

**CERTIFIED MAIL™**

BASF Corporation  
1609 Biddle Avenue  
Wyandotte, MI 48192



The Chemical Company



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Lisle, Illinois 60532-4352**

60532435260

