



The Chemical Company

January 25, 2012

United States 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

Mr. Frank Tran:

Per our conversation, here are the additional documents which will hopefully answer your questions regarding our renewal application.

- 1) This last amendment application has the information regarding the non-routine maintenance activities we sought. The Appendix N items begin on page 9.
- 2) Page 2 shows the missing gauges you inquired about.
- 3) We would like to maintain the current max. activity amounts from Amendment 52 seen in section 8. Those are:
 - A. 120 mCi
 - B. 40 mCi
 - C. 250 mCi
 - D. 9.5 mCi

You can reach me at (734) 324-5282 or email me at derek.hetes@basf.com. with any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Derek Hetes".

Derek Hetes
Radiation Safety Officer/ EHS Team Member
BASF- Wyandotte Site



The Chemical Company

CERTIFIED MAIL – RETURN RECEIPT REQUESTED:
7005 3110 xxxx xxxx xxxx

August 5, 2011

United States 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 the 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. with any questions or concerns.

Sincerely,

Derek Hetes
Radiation Safety Officer/ EHS Team Member
BASF- Wyandotte Site



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Exhibit Items Addressing Parts 5 - 11 Of Material License Application (NRC Form 313)

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

Yes	No	Radioisotope	Manufacturer Model No.	Quantity	Use as Listed on SSD Certificate	Other uses not listed on SSD Certificate
X		Cesium-137	Kay-Ray/ Sensall Model # 7062B (TX- 0634-D-172-B)	25 mCi	Yes[x] Specific description of the gauge use: <u>Used in Kay-Ray level gauging system.</u>	[x] Not applicable
X		Cesium-137	Kay-Ray/ Sensall Model # 7062B (TX- 0634-D-172-B)	25 mCi	Yes[x] Specific description of the gauge use: <u>Used in Kay-Ray level gauging system.</u>	[x] Not applicable
X		Cesium-137	Kay-Ray/ Sensall Model # 7062B (TX- 0634-D-172-B)	10 mCi	Yes[x] Specific description of the gauge use: <u>Used in Kay-Ray level gauging system.</u>	[x] Not applicable
X		Cesium-137	Kay-Ray/ Sensall Model # 7062B (TX- 0634-D-172-B)	10 mCi	Yes[x] Specific description of the gauge use: <u>Used in Kay-Ray level gauging system.</u>	[x] Not applicable
X		Cesium-137	Thermo Fisher Scientific/ TN Technologies Model 5205A (TX-0634-D- 142-B)	5 mCi	Yes[x] Specific description of the gauge use: <u>Used in Thermo Fisher Scientific/ TN Technologies level gauging system.</u>	[x] Not applicable
X		Cesium-137	Thermo Fisher Scientific/ TN Technologies Model 5205A (TX-0634-D- 142-B)	5 mCi	Yes[x] Specific description of the gauge use: <u>Used in Thermo Fisher Scientific/ TN Technologies level gauging system.</u>	[x] Not applicable



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

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



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

Yes	No	Radioisotope	Manufacturer Model No. (SSDR)	Quantity	Use as Listed on SSD Certificate	Other uses not listed on SSD Certificate
X		Cobalt-60	Berthold Technologies Model LB300L (TN-1031-D-104-B)	0.459 mCi	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <u>To be used in Berthold Technologies level gauging system.</u>	<input checked="" type="checkbox"/> Not applicable
X		Cobalt-60	Berthold Technologies Model LB300L (TN-1031-D-104-B)	0.3510 mCi	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <u>To be used in Berthold Technologies level gauging system.</u>	<input checked="" type="checkbox"/> Not applicable
X		Cobalt-60	Berthold Technologies Model LB300L (TN-1031-D-104-B)	0.3510 mCi	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <u>To be used in Berthold Technologies level gauging system.</u>	<input checked="" type="checkbox"/> Not applicable
X		Cobalt-60	Berthold Technologies Model LB300L (TN-1031-D-104-B)	0.3510 mCi	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <u>To be used in Berthold Technologies level gauging system.</u>	<input checked="" type="checkbox"/> Not applicable
X		Cobalt-60	Berthold Technologies Model LB300L (TN-1031-D-104-B)	0.622 mCi	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <u>To be used in Berthold Technologies level gauging system.</u>	<input checked="" type="checkbox"/> Not applicable
X		Cobalt-60	Berthold Technologies Model LB300L (TN-1031-D-104-B)	0.459 mCi	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <u>To be used in Berthold Technologies level gauging system.</u>	<input checked="" type="checkbox"/> Not applicable
X		Cobalt-60	Berthold Technologies Model LB300L (TN-1031-D-104-B)	0.459 mCi	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <u>To be used in Berthold Technologies level gauging system.</u>	<input checked="" type="checkbox"/> Not applicable



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

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X		Cobalt-60	Berthold Technologies Model LB300L (TN-1031-D-104-B)	0.459 mCi	Yes[x] Specific description of the gauge use: <u>To be used in Berthold Technologies level gauging system.</u>	[x] Not applicable
X		Cobalt-60	Berthold Technologies Model LB300L (TN-1031-D-104-B)	0.622 mCi	Yes[x] Specific description of the gauge use: <u>To be used in Berthold Technologies level gauging system.</u>	[x] Not applicable
X		Cobalt-60	Berthold Technologies Model LB300L (TN-1031-D-104-B)	0.459 mCi	Yes[x] Specific description of the gauge use: <u>To be used in Berthold Technologies level gauging system.</u>	[x] Not applicable
X		Cobalt-60	Berthold Technologies Model LB300L (TN-1031-D-104-B)	0.459 mCi	Yes[x] Specific description of the gauge use: <u>To be used in Berthold Technologies level gauging system.</u>	[x] Not applicable
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X		Cobalt-60	Berthold Technologies Model LB300L (TN-1031-D-104-B)	0.622 mCi	Yes[x] Specific description of the gauge use: <u>To be used in Berthold Technologies level gauging system.</u>	[x] Not applicable
X		Cobalt-60	Berthold Technologies Model LB300L (TN-1031-D-104-B)	0.459 mCi	Yes[x] Specific description of the gauge use: <u>To be used in Berthold Technologies level gauging system.</u>	[x] Not applicable



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

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X		Cobalt-60	Berthold Technologies Model LB300L (TN-1031-D-104-B)	0.459 mCi	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <u>To be used in Berthold Technologies level gauging system.</u>	<input checked="" type="checkbox"/> Not applicable
X		Cobalt-60	Berthold Technologies Model LB300L (TN-1031-D-104-B)	0.459 mCi	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <u>To be used in Berthold Technologies level gauging system.</u>	<input checked="" type="checkbox"/> Not 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 7.1 Radiation Safety Officer: Derek Hetes Alternate: Dan Hannewald	The RSOs have completed Radiation Safety Training consistent with criteria in NUREG-1556 Vol. 4, October 1998. AND 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 7.2 Authorized Users	PROPOSED AUTHORIZED USERS: 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]	[]



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Table B.2 Items 10 through 11: Radiation Safety Program and Waste Disposal

	Training & Experience	Yes	Alternative Procedures Attached
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 10CFR 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.	[X]	[]
10. Radiation Safety Program - Operating and Emergency Procedures	Operating and emergency procedures have been developed, implemented, maintained and distributed that meet Criteria in the section entitled "Radiation Safety Program - Operating and Emergency Procedures" in NUREG-1556, Vol. 4 dated October 1998.	[X]	[]
10. Radiation Safety Program - Leak Test	Leak tests will be performed at intervals approved by the NRC and specified in the Sealed Source and Device Registration Certificate. Leak tests will be performed by using a leak test kit supplied by an organization authorized by NRC to provide leak test kits to other licenses and according to the kit supplier's instructions.	[X]	[]
10. Radiation Safety Program - Maintenance	<p><u>ROUTINE MAINTENANCE</u> We have implemented and maintain procedures for routine maintenance of our fixed gauges according to each manufacturers or distributor's written recommendations and instructions.</p> <p><u>NON-ROUTINE 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, gauge relocation, replacement, alignment, or removal of a gauge from service only.</p>	[X] [X]	
10. Radiation Safety Program - Fixed Gauge Use at Temporary Sites	Not applicable to our Program		[X] Not Applicable
11. Waste Mgmt.	No response required.		