

Bayer CropScience



VIA CERTIFIED MAIL - 7011 0110 0002 4977 0215
RETURN RECEIPT REQUESTED

October 16, 2014

Richard A. Nussbaum, P.E., R.G., Chief Permits Section
Hazardous Waste Program
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, Missouri 65102-0176

RE: Submittal of Class 2 Permit Modification for MDNR Approval
Missouri Hazardous Waste Management Facility Permit
Bayer CropScience LP
8400 Hawthorn Road
Kansas City, Missouri 64120
USEPA ID No.: MOD056389828
Missouri ID No.: 001231

Bayer CropScience
8400 Hawthorn Road
P O. Box 4913
Kansas City, MO 64120-0013
Phone 816 242-2000

Dear Mr. Nussbaum:

The purpose of this letter is to request Missouri Department of Natural Resources (MDNR's) approval of a Class 2 permit modification to the Missouri Hazardous Waste Management Facility Permit at Bayer CropScience LP's (Bayer's) above referenced facility per 40 CFR 270.42(b). The facility is seeking to modify its Missouri Hazardous Waste Management Facility Permit to make the following four changes:

- Request to add eight chemicals to the currently permitted list so that the facility can store and treat wastes from processes related to former Aventis CropScience products that Bayer purchased in 2002.
- Request to add a new 24,000-gallon capacity permitted storage tank. The tank will increase the facility's total storage capacity by 22 percent and the number of permitted storage tanks to five.
- Make a minor change to the schedule to perform internal inspections of permitted tanks from the current requirement of "once every 12 months" to "once per year."

- Request to increase operational secondary containment capacity of Container Storage Pad No. 2 by slightly increasing the height of the pad's curb and ramp, thereby more closely aligning its containment capacity with its permitted volume.

Bayer has prepared this Class 2 permit modification in accordance with 40 CFR 270.42(b).

1.0 ADMINISTRATIVE CONSIDERATIONS

There are a number of ways to implement the administrative changes of this permit modification should the MDNR approve it. Bayer's current preference is to provide the MDNR with a revised RCRA permit renewal application shortly after the Class 2 permit modifications requested in this letter have been approved. The purpose of revising the permit renewal application will be to remove and modify text no longer applicable as a result of the Class 2 permit modification changes. For instance, all references to adding the eight new chemicals, and their corresponding 10 new hazardous waste codes, will be removed from the permit application, and the statements regarding the request to install a new storage tank will be amended to refer to the tank as already permitted. A revised permit application is not being provided as part of this Class 2 permit modification for a number of reasons, including the uncertainty of the permit modification being approved and the advantage of administrative efficiencies that may be realized by a stepwise approach in modifying the permit application.

2.0 ADDITION OF NEW WASTE CODES

Bayer is requesting to add the eight chemicals, and their corresponding 10 United States Environmental Protection Agency (USEPA) hazardous waste codes, identified in Table 1 below, to the facility's Part A permit to allow the facility to store and treat these wastes.

**TABLE 1 - SUMMARY OF NEW CHEMICALS
AND USEPA WASTE CODES**

Chemical Name	CAS No.	USEPA Waste Codes
Lindane	58-89-9	D013 U129
2,4-D, Salts, Esters, and Acids	94-75-7 & various	D016 U240
Acetone cyanohydrin	75-86-5	P069
Aldicarb	116-06-3	P070
Thiram	137-26-8	U244
Carbaryl	63-25-2	U279
Thiophanate-Methyl	23564-05-8	U409
Thiodicarb	59669-26-0	U410

The primary reason the facility is seeking to add the new waste codes is to assimilate legacy waste codes from Bayer's purchase of Aventis CropScience in 2002. The facility is currently not permitted to store wastes with these waste codes in containers or tanks or treat wastes with these waste codes onsite. All wastes generated with these codes must therefore be shipped offsite for treatment/disposal at considerable cost to the facility as opposed to treating the waste in the facility's onsite hazardous waste combustor. It is also burdensome and expensive for the facility to manage separately the accumulation and disposal of these waste streams. Adding the requested 10 codes will provide the facility the opportunity to ship less waste offsite for treatment; this in turn will save the facility money. In addition, being able to manage all its wastes together will be less time consuming and less burdensome than segregating wastes with these USEPA waste codes from the others managed at our facility.

These new waste codes are chemically similar to the wastes already permitted for storage in the two container storage areas and the hazardous waste storage tanks. Therefore, their addition would not require any changes to the container or tank management practices. Pursuant to F.4.b of Appendix I to 40 CFR 270.42, the storage of different wastes in containers from those currently stored is a Class 1 permit modification provided that the storage of such wastes would not require the addition of units or a change in the management standards for those containers and the units have previously received wastes of the same type. For tanks, G.5.d of Appendix I to 40 CFR 270.42 indicates a Class 2 permit

modification is appropriate when managing different wastes in a tank provided that those wastes do not require additional or different management practices, changes to tank design, or different fire protection specifications.

In regards to the incinerated wastes, the requested 10 codes are similar in chemistry and composition to the existing types of waste the facility currently incinerates and has consistently proven capable to treat. None of the organic compounds represented by these waste codes are more difficult to incinerate than the principal organic hazardous constituent (POHC) used during the destruction and removal efficiency (DRE) demonstration in our 2004 Comprehensive Performance Test. The POHC used in the 2004 DRE test was chlorobenzene, which is a Class 1 POHC according to the Thermal Stability Index referenced in USEPA guidance (USEPA/625/6-8/019) and therefore represents one of the most thermally stable and hardest to destroy organic compounds. Therefore, in accordance with 40 CFR 270.42 Appendix I, adding the new waste codes is considered a Class 2 modification (L.6.b), and a new DRE demonstration is not required to complete this modification request. Attachment 1 of this letter summarizes the 10 new waste codes, their difficulty to burn, and the appropriateness of current performance standards.

3.0 NEW HAZARDOUS WASTE STORAGE TANK

Bayer currently has four permitted hazardous waste storage tanks at the Kansas City facility. These tanks are referred to as the Aqueous Tank, the Organic Tank, the Slurry Tank, and the Residue Tank. With this Class 2 permit modification, Bayer is requesting to add a fifth permitted hazardous waste storage tank. The new tank will be called the "Flex Tank" and will be assigned identification number Tank 6.1-B6. This tank will be used to store either aqueous or organic wastes (at separate times) and, as its name implies, will provide flexibility and additional storage capacity of wastes during peak production periods and incinerator downtime. It is less expensive for the facility to treat waste onsite than to ship it offsite for disposal. The new tank will therefore save the facility money because less waste will be sent offsite for disposal.

The new Flex Tank has a capacity of 24,000 gallons. The addition of the fifth storage tank will therefore increase the site's total storage capacity of the permitted tank farm from 108,000 gallons to 132,000 gallons; an

increase of 22 percent. This falls within the criteria for a Class 2 permit modification under 40 CFR 270.42 Appendix I, G.1.b, as it is less than or equal to 25 percent of the facility's current storage capacity.

Table 2 provides a summary of the information being supplied on the Flex Tank as required for the permit modification pursuant to 40 CFR 270.16. The information provided, the statutory requirement for that information, and the corresponding section in which the information can be found in the 2008 permit renewal application are indicated in the table. For completeness, the information from the 2008 permit application that is required to support the modification of the current permit has been duplicated and included with this letter as Attachment 2.

**TABLE 2 - SUMMARY OF INFORMATION
 PROVIDED ON NEW FLEX TANK**

Required Information	Statutory Requirement ¹	2008 Application Reference
Dimensions and capacity	270.16(b)	D-2.1.1
Feed systems, safety cutoffs, bypass systems, and pressure controls	270.16(c), 264.194(b)	D-2.1.2
Process flow, piping, and instrumentation	270.16(d)	D-2.1.3, Attachment D-1
Structural integrity and suitability for proposed service	270.16(a), 270.16(e), 264.192(a)	D-2.3.1, Attachment D-3
Installation procedures and testing plans and procedures	270.16(f), 264.192(b)-(e)	D-2.3.2
External corrosion protection	270.16(e), 264.192(a)(3)(ii)	D-2.1.1
Secondary containment system	270.16(g)-(h), 264.193, 264.1101(b)(3)(iii)	D-2.4, Attachment D-2
Spill prevention practices	270.16(i), 264.194(a), 264.195	D-2.5
Procedures for handling ignitable, reactive, or incompatible wastes	270.16(j), 264.17(b), 264.198, 264.199	D-2.1.4
Prohibitions on storage of restricted wastes	270.14(a), 264.73, 268.50(a)(2)(ii)	C-3.3.2
Tank air emission controls	270.14(a), 270.27, 264.1084	O-5

**TABLE 2 (continued) - SUMMARY OF INFORMATION
PROVIDED ON NEW FLEX TANK**

Required Information	Statutory Requirement ¹	2008 Application Reference
Inspection plan and schedule	270.14(b)(5), 264.195	F-2, Attachment F-2, Attachment F-3
Closure plan and cost estimate	270.14(b)(13), 270.14(b)(15), 264.112(b)(3), 264.197, 264.142	I-1, I-4, Attachment I-1, Attachment I-2

¹ Title 40 Code of Federal Regulations (CFR)

4.0 CHANGE IN SCHEDULE TO PERFORM INTERNAL INSPECTIONS OF STORAGE TANKS

Bayer requests to slightly modify the schedule to perform internal inspections of the facility's permitted waste storage tanks. The facility currently performs internal inspections once every 12 months per Permit Condition II.G, Part I, of the Missouri Hazardous Waste Management Facility Permit. With this permit modification, the facility would like to change the internal tank inspection frequency from "once every 12 months" to "once per year." The requested change is a Class 2 permit modification, categorized under G.4 of Appendix I of 40 CFR 270.42, as modification of a tank management practice.

There are several reasons the facility is seeking this modification. The primary reason is that the current inspection frequency is extremely burdensome and expensive for the facility to comply with and it does not result in a commensurate human health and/or environmental benefit. The permit's 12 month inspection frequency has been interpreted by the MDNR to be mean once every 365 days. This results in a collapsing schedule where each tank must be inspected earlier in the calendar each year than in the previous year. This inspection frequency is burdensome and costly to the facility because it prevents the facility from scheduling tank inspections during site-wide shutdowns, when the facility's waste generation rate is at its lowest.

The facility currently has two options to perform internal tank inspections when the facility's manufacturing plants are running (i.e., not during shutdown):

1. Take the tanks out of service for inspection while the manufacturing plants are running and ship all generated wastes offsite for disposal;
or
2. Shut down the manufacturing plants to stop waste generation, or significantly reduce it, while the tanks are taken out of service for inspection.

When the facility is operating at full production, the waste tanks are needed to provide storage of generated wastes prior to onsite treatment in Thermal Oxidizer II. To take a tank out of service for inspection requires the tank to be emptied and all wastes generated during that period to be redirected for offsite disposal instead of onsite treatment. This activity is very expensive with costs typically exceeding \$40,000 per tank, per year. These costs could easily be avoided if the tank's inspection were to occur during a site-wide plant shutdown. If the facility opts for the second option (curtailing production to facilitate the tank inspections), the financial impact to the facility is even greater, as the dollar value of lost product sales would be in excess of the offsite disposal costs. Neither of these choices is desirable as they both negatively affect the financial vitality of the facility, which we are particularly sensitive to in these tough economic times.

The ideal time to take storage tanks out of service for inspection is when the tanks are least needed; which is during times of low waste generation. This occurs once or twice per year, in the spring and/or the fall, when the site's chemical manufacturing plants and utilities shutdown to perform routine maintenance and change over equipment for the next production campaigns. The start and end date of each shutdown varies based on numerous production schedule variables and does not necessarily occur at the same time each year. Shutdowns are typically three to five weeks long. It is during this shutdown that the facility performs most of its site-wide production equipment inspections and maintenance. The requested permit modification would allow the facility to also perform the hazardous waste storage tank inspections during the site-wide plant shutdown.

Another reason the facility is requesting this permit modification is because there are no Federal or State regulations that require internal tank

inspections, let alone a requirement to provide such inspections every 12 months. Furthermore, there are also no Federal or State guidance documents that recommend internal tank inspections. It is therefore within MDNR's authority to grant the requested permit modification.

A final reason to request this permit modification is because the requirement to perform internal tank inspections is inconsistent with Missouri's "No Stricter/No Sooner" Section 260.373.1 of the Revised Statutes of Missouri (RSMo). This statute specifies that Missouri hazardous waste regulations can be no stricter, and no sooner, than Federal hazardous waste regulations, except as specifically allowed by 260.373.1. Since internal tank inspections are not identified as an allowed exception, the MDNR has the flexibility and authority to grant the requested permit modification.

Considering the scheduling difficulties with the current permit requirement for internal tank inspections and the lack of a Federal or State regulation providing for such an inspection, Bayer requests that the permit language be amended to state internal tank inspections shall occur "once per year." This change will allow Bayer to coordinate the inspections with site-wide plant shutdowns and eliminate the logistical and financial burdens resulting from the current 365 day inspection requirement.

5.0 MODIFICATION TO CONTAINER STORAGE PAD NO. 2

Bayer requests to slightly modify the height of the curb and access ramp to the facility's permitted Container Storage Area Number 2 (a.k.a., Container Storage Pad No. 2). Specifically, the facility would like to add 4 inches to the height of the storage pad's curb and 3 inches to the height of the access ramp. The requested change is a Class 2 permit modification, categorized under F.2 of Appendix I of 40 CFR 270.42, as a modification of a container unit without increasing the capacity of the unit.

Note that Bayer is not seeking to increase the 12,375-gallon permitted storage capacity of the container storage area with this modification. Rather, Bayer merely wishes to increase the secondary containment capacity of the pad to facilitate the storage of larger containers in the area. The total volume of liquids stored within Container Storage Pad No. 2 would still never exceed the permitted capacity currently afforded it under the facility's active Missouri Hazardous Waste Management Facility Permit.

The physically available secondary containment capacity of Container Storage Pad No. 2 is currently 3,760 gallons. With this current secondary containment volume, Bayer can store the maximum number of drums allowed by the area's physical configuration and current permitted capacity. However, Bayer cannot store larger containers (e.g., a 5,000-gallon Sea container) in the area even though the volume provided by these containers is well within the current permitted capacity of Container Storage Pad No. 2. This is because the secondary containment volume provided for the area is not sufficient to support storage of this size container. In order to store a 5,000-gallon Sea container on the pad, the secondary containment volume would need to be at least 5,000 gallons. Per 40 CFR 264.175, the secondary containment system must be sized to hold at least 10 percent of the total volume of containers stored, or 100 percent of the largest container in the secondary containment area, whichever is greater.

After the proposed modification is made, the storage area's secondary containment capacity will increase to 7,567 gallons. This will allow Bayer to store larger containers of waste in Container Storage Pad No. 2, including the 5,000-gallon Sea container provided in the example above. Attachment 3 provides the effective containment volume for a series of example configurations that could be used after the curb modification is complete; in each example, the modified curb ensures compliance with the secondary containment requirements of 40 CFR 264.175. Additional information required to facilitate this modification, including revised secondary containment calculations and revised drawings are also provided in Attachment 3.

Again, please note that this modification does not request an increase to the current permitted capacity of 12,375 gallons. The proposed modification simply provides for a slight physical modification of the area's curb and a modest but necessary increase in the secondary containment capacity of the area, allowing Bayer to take full advantage of the currently permitted storage capacity of Container Storage Pad No. 2.

6.0 CHANGES TO PART A OF PERMIT

The permit modifications requested by this letter require several revisions to the facility's Part A forms. Towards that end, an updated Part A with the 10 new hazardous waste codes and the changes required to facilitate the addition of the Flex Tank has been completed and is included as

Attachment 4 of this letter. The Part A permit application consists of the following three forms:

- USEPA form entitled "RCRA Subtitle C Site Identification Form (USEPA Form 8700-12 (revised 12/2011))"
- USEPA form entitled "Hazardous Waste Permit Information Form (USEPA Form 8700-13 A/B (revised 12/2011))"
- MDNR form entitled "Hazardous Waste Management Facility Application Form (revised 7/14/2000)"

These three forms contain applicable information germane to this Class 2 permit modification as required pursuant to 40 CFR 270.42(b) and Missouri's hazardous waste regulations.

7.0 CHANGES TO PERMIT APPLICATION

The changes requested in this Class 2 modification will require modification to the facility's Missouri Hazardous Waste Management Facility Permit renewal application. However, as discussed above in Section 1 of this letter, Bayer's current preference is to provide the MDNR with a revised permit renewal application shortly after the Class 2 permit modifications requested in this letter have been approved. However, the hazardous waste permit information required pursuant to 40 CFR 270.13 through §270.21, §270.62, and §270.63 to support the requested modifications has been included in attachments to this letter to provide a complete application. Specifically:

- Attachment 2 provides the textual descriptions and supporting engineering data (structural integrity assessment, piping and instrumentation diagrams, and secondary containment calculations) required by 40 CFR 270.14 and §270.16 on the design, inspection, operation, and maintenance of the new Flex Tank (see Table 2 above for a detailed reference of included information); and
- Attachment 3 provides revised engineering data (secondary containment calculations and arrangement drawings) for the modified Container Storage Area Number 2 pursuant to 40 CFR 270.15.

8.0 PUBLIC NOTICE OF PERMIT MODIFICATION

In accordance with 40 CFR 270.42(b)(2), Bayer will provide notification of this Class 2 permit modification request to all persons on the "Facility Mailing List" and will publish an announcement of the request in the Kansas City Star newspaper, a major local newspaper of general circulation. The newspaper notification was published on October 15, 2014. A copy of the "Facility Mailing List," identifying all persons who will be notified, is included in Attachment 5 of this letter. A copy of the public notice mailing is provided in Attachment 6 of this letter, and the newspaper announcement is provided in Attachment 7.

As required by 40 CFR 270.42(b)(2), Bayer has made a copy of this modification request available for public review at the North-East Branch of the Kansas City Public Library. The library's address is 6000 Wilson Road, Kansas City, Missouri zip code 64123. Bayer has scheduled a public meeting on this request for November 7, 2014 at 6 PM at Quality Inn & Suites hotel located at 1051 N. Cambridge Avenue, Kansas City, Missouri zip code 64120. As indicated in the public notice, Bayer has requested that public comments on this permit modification request be directed to Richard A. Nussbaum, P.E., R.G., Chief Permits Section, Missouri Department of Natural Resources, Hazardous Waste Program, P.O. Box 176, Jefferson City, Missouri 65102-0176 within the 60 day comment period which ends December 14, 2014.

9.0 CERTIFICATION STATEMENT

The following statement from 40 CFR 270.11(d)(1) is hereby certified by way of signature at the end of this letter:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiring of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Given the regulatory nature of this submittal, Bayer requests the MDNR's response to this Class 2 permit modification be provided in writing. Please contact Mr. Richard Rocha at (816) 242-2793, or via email at Richard.Rocha@Bayer.com should you have any questions.

Sincerely,

BAYER CROPSCIENCE LP



Paul E. Nagy
Head of Kansas City Site

- Attachments:
- 1.) Supporting Documentation for Treatment of New Hazardous Waste Codes
 - 2.) Supporting Documentation for New Storage Tank
 - a. Textual descriptions and detail on Tank 6.1-B6 and ancillary equipment
 - b. Design Drawings for Tank 6.1.B6
 - c. P.E. Structural Assessment of Tank 6.1-B6
 - d. Details on Piping System of Tank 6.1-B6 and ancillary equipment
 - e. Detailed Information of Tank 6.1-B6 Secondary Containment System
 - f. Modified Closure Cost Estimate
 - 3.) Supporting Documentation for Container Storage Area Number 2 Curb Height Adjustments
 - a. Effective containment volume for example container configurations
 - b. Revised secondary containment calculations
 - c. Revised drawings showing proposed curb adjustments
 - 4.) Revised Part A Forms
 - a. USEPA Form 8700-12 signed 10-15-14
 - b. Revised Part A USEPA Form 8700-13 A/B signed 10-15-14
 - c. Revised Missouri Hazardous Waste Management Facility Application Form signed 10-15-14

Richard A. Nussbaum, P.E., R.G., Chief Permits Section
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- 5.) Copy of Facility Mailing List
- 6.) Copy of Public Notice sent to Facility Mailing List
- 7.) Copy of Newspaper Notice

cc: Andrea Collier, Director, MDNR Kansas City Regional Office
Michele E. Gehring, P.E., Coterie Environmental
Ken Herstowski, P.E., USEPA Region 7
Paul E. Nagy, Bayer CropScience
Richard H. Rocha, Bayer CropScience 