

STATE OF MISSOURI



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 122011-007

Project Number: 2011-08-066
Installation Number: 127-0062

Parent Company: Alpharma, LLC

Parent Company Address: 400 State Street, Chicago Heights, IL 60411

Installation Name: Alpharma, LLC

Installation Address: 3152 Highway JJ, Palmyra, MO 63461

Location Information: Marion County, S14, T58N, R5W

Application for Authority to Construct was made for:
Reactivation of operation of an existing antibiotic animal feed additive production facility by new facility owners. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

DEC - 7 2011

EFFECTIVE DATE

Handwritten signature of Kya L Moore in cursive script.

DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

PERMIT BOOK

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Departments' Air Pollution Control Program of the anticipated date of start up of these air contaminant sources. The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of these air contaminant sources.

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant sources(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

Alpharma, LLC
Marion County, S14, T58N, R5W

1. Emission Limitation
 - A. Alpharma, LLC shall emit less than 10.0 tons of particulate matter less than 2.5 microns in diameter (PM_{2.5}) in any consecutive 12-month period from the entire installation (see Table 1).

Table 1: Alpharma, LLC - Entire Installation

Emission Unit	Description
AFI-01	Corn Starch Transfer
AFI-02	Corn Starch Transfer
AFI-11	Lime Storage Silo
AFI-12	Lime Weigh Hopper
AFI-13a	Lime Transfer to Slurry Tank
AFI-13b	Hand Adds Dumping Station
AFI-13c	Hand Adds Transfer to Surry Tank
AFI-14	Dicalite Storage Silo
AFI-15	Dicalite Weigh Hopper
AFI-13d	Dicalite Transfer to Slurry Tank
AFI-17	Wyssmont/Paddle Dryer
AFI-18a	Hammermill
AFI-18b	Product A Silo Storage
AFI-19	Product B Silo Storage
AFI-20	Product Blender
AFI-21	Product Loadout
AFI-22	Emergency Generator
HRS-1-12	Haul Road Segments

- B. Attachment A or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 1.A.
2. Control Device Requirement-Baghouse
 - A. Alpharma, LLC shall control emissions from the equipment listed in Table 2 using baghouses as specified in the permit application.

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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

Table 2: Emission Unit Controlled by a Baghouse

Emission Unit	Description
AFI-01	Corn Starch Transfer
AFI-02	Corn Starch Transfer
AFI-11	Lime Storage Silo
AFI-12	Lime Weigh Hopper
AFI-13a	Lime Transfer to Slurry Tank
AFI-13b	Hand Adds Dumping Station
AFI-13c	Hand Adds Transfer to Slurry Tank
AFI-14	Dicalite Storage Silo
AFI-15	Dicalite Weigh Hopper
AFI-13d	Dicalite Transfer to Slurry Tank
AFI-17	Wyssmont/Paddle Dryer
AFI-18a	Hammermill
AFI-18b	Product A Silo Storage
AFI-19	Product B Silo Storage
AFI-20	Product Blender

- B. The baghouses shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them.
- C. Replacement filters for the baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
- D. Alpharma, LLC shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- E. Alpharma, LLC shall maintain an operating and maintenance log for the baghouses which shall include the following:
 - 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

3. Record Keeping and Reporting Requirements
 - A. Alpharma, LLC shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include Material Safety Data Sheets (MSDS) for all materials used
 - B. Alpharma, LLC shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which any record required by this permit shows an exceedance of a limitation imposed by this permit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2011-08-066
Installation ID Number: 127-0062
Permit Number:

Alpharma, LLC
3152 Highway JJ
Palmyra, MO 63461

Complete: September 7, 2011

Parent Company:
Alpharma, LLC
400 State Street
Chicago Heights, IL 60411

Marion County, S14, T58N, R5W

REVIEW SUMMARY

- Alpharma, LLC has applied for authority to reactivate an existing antibiotic animal feed additive production facility.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. HAPs of concern from this process are Manganese.
- New Source Performance Regulations, 10 CSR 10-6.070 – *New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines*, 40 CFR Part 60, *Subpart IIII* applies to the emergency generator at this facility.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) apply to this installation. None of the currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- Baghouses are being used to control the particulate matter (PM), particulate matter less than ten microns in aerodynamic diameter (PM₁₀) and particulate matter less than two and a half microns in aerodynamic diameter (PM_{2.5}) emissions from the equipment in this permit.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, Construction Permits Required. Potential emissions of PM_{2.5} are conditioned below de minimis levels.
- This installation is located in Marion County, an attainment area for all criteria pollutants.
- This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and

fugitive emissions are not counted toward major source applicability.

- Ambient air quality modeling was not performed since potential emissions of the application are conditioned below de minimis levels.
- Emissions testing is not required for the equipment.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Alpharma, LLC has plans to restart an existing antibiotic animal feed additive production facility under an agreement as Hannibal Bio-Tech. The facility is located on the northeast portion of the Baden Aniline and Soda Factory (BASF) facility near Palmyra, Missouri. The property on which the facility sits is owned by BASF and is leased by BASF to Hannibal Bio-Tech. Hannibal Bio-Tech will remain the owner of the equipment with the facility being operated by Alpharma, LLC. Currently no construction or operating permits have been issued by the Air Pollution Control Program to Alpharma, LLC for this site.

PROJECT DESCRIPTION

Alpharma, LLC will manufacture animal health products using fermentation processes at the facility. Corn starch, lime, dicilate, as well as various additives will be used to produce the final product.

All emission points except for the final product loadout are controlled by a baghouse. All material transfers, where particulate matter emissions are expected, are done pneumatically.

Alpharma, LLC has six raw material storage tanks on site. Volatile organic compound (VOC) emissions are expected from these emission points. Based on good engineering judgment, however, the potential VOC emissions from these emission points are expected to be less 1.0 ton per year.

Alpharma, LLC also has a diesel powered emergency generator on site. The potential emissions from the unit will be included in the installation conditioned potential emissions in Table 3. The potential emissions are based upon 500 hours of operation per year.

It has been determined that the Alpharma, LLC operation of the antibiotic animal feed additive production facility is separate and distinct from the operations of BASF. Therefore, Alpharma, LLC is considered a separate installation.

EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies used for the lime, dicilate, and final product transfers were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, 11.12, *Concrete Batching* (June 2006). The emission factors were chosen based on the consistency of cement and method of transfer and were deemed most representative for this process. These emission points are controlled by a baghouse therefore the controlled emission factor was used.

The emission factors and control efficiencies used for the corn starch transfers were obtained for the Factor Information Retrieval (FIRE) Data System Version 6.25 (SCC 3-02-014-08). These emission points are controlled by a baghouse therefore the controlled emission factor was used.

The emission factors and control efficiencies used for the Paddle and Wyssmont Dryer were obtained from the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 10.7, *Charcoal* (September 1995). The charcoal industry uses a tray dryer similar to the one used by Alpharma, LLC therefore the charcoal emission factors were deemed the most representative. Both dryers are controlled by a three stage baghouse. Alpharma, LLC provided manufacture documentation for the baghouse and bags that will used to control particulate matter from these process. A control efficiency of 99.5 percent and a capture efficiency of 100 percent was given for these processes.

The emission factors and control efficiencies used for the hammermill were obtained from the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 11.6, *Portland Cement Manufacturing* (January 1995). The fabric filter controlled finish grinding mill emission factor was deemed the most representative.

For Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year.) The following table provides an emissions summary for this project.

Table 3: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions	Controlled Potential Emissions of the Application	New Installation Conditioned Potential
PM _{2.5}	10.0	N/A	N/A	15.78	<10.00
PM ₁₀	15.0	N/A	N/A	16.31	10.34
SO _x	40.0	N/A	N/A	0.04	0.04
NO _x	40.0	N/A	N/A	0.56	0.56
VOC	40.0	N/A	N/A	0.05	0.05
CO	100.0	N/A	N/A	0.12	0.12
HAPs	10.0/25.0	N/A	N/A	8.6E-03	8.6E-03
Manganese	0.80	N/A	N/A	8.1E-03	5.1E-03

N/A = Not Applicable

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM_{2.5} are conditioned below de minimis levels.

APPLICABLE REQUIREMENTS

Alpharma, LLC shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information, 10 CSR 10-6.110*
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin, 10 CSR 10-6.170*
- *Restriction of Emission of Visible Air Contaminants, 10 CSR 10-6.220*
- *Restriction of Emission of Odors, 10 CSR 10-6.165*

SPECIFIC REQUIREMENTS

- *New Source Performance Regulations, 10 CSR 10-6.070 – New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart IIII*

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Gerad Fox
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated August 23, 2011, received August 24, 2011, designating Alpharma, LLC as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Northeast Regional Office Site Survey, dated September 29, 2011.

Mr. Reginald Alston
Environmental, Health and Safety Manager
Alpharma, LLC
400 State Street
Chicago Heights, IL 60411

RE: New Source Review Permit - Project Number: 2011-08-066

Dear Mr. Alston:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions and your new source review permit application is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact Gerad Fox, at the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp
New Source Review Unit Chief

SH:gfl

Enclosures

c: Northeast Regional Office
PAMS File: 2011-08-066

Permit Number: