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NATURAL RESOURCES

Eric R. Greitens, Governor

Carol S. Comer, Director

MAY 3 1 2018

Mr. Shawn Kimberly
VP Operations Excellence and TVAP
Koch Agronomics Services, LLC
39 Bremen Avenue
St. Louis, MO 63147

RE: New Source Review Permit Amendment - Permit Number: 062016-015A
Project Number: 2017-10-038; Installation Number: 510-3001

Dear Mr. Kimberly:

On October 19, 2017, the Air Pollution Control Program received a request to amend Construction Permit 062016-015 for Koch Agronomics Services, LLC to rename emission units, revise potential emissions and maximum hourly design rates (MHDR), revise compliance calculations, and clarify operating permit applicability. No new construction is proposed as part of this amendment, only clarifying naming conventions and emissions of existing equipment. This document is the amendment to Construction Permit 062016-015.

The following emission units have been renamed and renumbered as requested:

Previous EP	Previous description	New EP	New description
EP02	Grizzly to Process Cooler	EP02-01	Grizzly to Process Cooler
EP02-01	Granulation Drum to Grizzly	EP02-03	Granulation Drum to Grizzly

The following emission units have been assigned emission point numbers as requested. Previously, all were listed without an emission point number.

EP #	Description
EP02-02	Fluid Bed Process Cooler
EP13	3-way diverter bypass to floor (supersack loading)
EP19	Melter feed silo bin discharger to Melter Feeder Hopper
EP20	Melter feed hopper to Melter Weigh Belt Feeder
EP21	Melter weigh belt feeder to Melter feed transfer conveyor
EP14	DCD bag unloader to DCD feed elevator hopper #1
EP15	DCD feed elevator hopper #2 to DCD screw elevator
EP16	DCD feed elevator to DCD surge bin
EP17	DCD screw feeder to DCD melt feed piping
EP18	DCD surge bin discharger to DCD feed bin hopper
EP22	product/storage elevator to final product conveyors
EP23	seed silo bin discharger to seed feed hopper
EP24	seed feed hopper to seed weigh belt feeder
EP25	seed weigh belt feeder to seed feed transfer conveyor



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The following clarifications on emissions data have been made as requested:

Current EP	Current description	Clarifications	Pollutants Affected
EP01	Process Screen to Product Cooler	Remove emissions of VOC and formaldehyde as they are not emitted from this point.	VOC and Formaldehyde
EP02-02	Fluid Bed Process Cooler	Remove emissions as they are not emitted from this point.	Formaldehyde
EP04	Diverter to Fluid Bed Deduster	Remove emissions of VOC and formaldehyde as they are not emitted from this point.	VOC and Formaldehyde
EP05-01	Fluid Bed Deduster to Granulation Drum	Add emissions of VOC and formaldehyde to this point. Emissions pass through scrubber with 70% control of VOC and formaldehyde.	VOC and Formaldehyde
EP05-02	Urea Melter	Add emissions of VOC and formaldehyde to this point. Emissions pass through scrubber with 70% control of VOC and formaldehyde.	VOC and Formaldehyde
EP01	Process Screen to Product Cooler	Correct MHDR to 12.5 tons/hour	PM, PM ₁₀ , and PM _{2.5}
EP03-01	3 way diverter to seed material silo	Correct MHDR to 200 tons/hour	PM, PM ₁₀ , and PM _{2.5}
EP03-02	3-way diverter to melter feed material silo	Correct MHDR to 200 tons/hour	PM, PM ₁₀ , and PM _{2.5}
EP03-08	Process screen bypass diverter to process screen	Clarify emissions from this point are not controlled by baghouse CD-03.	PM, PM ₁₀ , and PM _{2.5}
All baghouses		Revise control efficiencies of particulates to 99.9% per manufacturer's data	PM, PM ₁₀ , and PM _{2.5}

These requests do not result in any changes to the special conditions established in Construction Permit 062016-015. They do result in changes to Table 5: Emissions Summary and Attachment A: PM₁₀ Compliance Worksheet. A revised Attachment A is included as an attachment to this amendment. Please use this revised Attachment A in place of the Attachment A in Construction Permit 062016-005. A revised Table 5 appears below:

Revised Table 5: 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	25.0	N/D	N/D	186.13	27.46
PM ₁₀	15.0	N/D	N/D	131.5	15.00
PM _{2.5}	10.0	N/D	N/D	31.67	3.61
SO _x	40.0	N/D	N/D	0.03	0.03
NO _x	40.0	N/D	N/D	4.61	4.61
VOC	40.0	N/D	N/D	1.02	1.02
CO	100.0	N/D	N/D	4.18	4.18
GHG (CO ₂ e)	75,000 / 100,000	N/D	N/D	5553.17	5553.17
GHG (mass)	0.0 / 100.0 / 250.0	N/D	N/D	5519.79	5519.79
HAPs	10.0/25.0	N/D	N/D	0.80	0.80

N/D = Not Determined

At the time Construction Permit 062016-015 was issued, it was determined that the installation met the definition of a Basic State Installation in 10 CSR 10-6.020, *Definitions and Common Reference Tables*, and therefore was required to obtain a Basic Operating Permit due to the applicability of 40 CFR part 60 Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*. And 40 CFR part 60 Subpart JJJJ, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*. However, in anticipation of the imminent approval of the amendment to the definition of a Basic State Installation in 10 CSR 10-6.020, this installation is instead reclassified from Basic Operating Permit status directly to No Operating Permit Required status.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty 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 administrative hearing commission, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.aa.mo.gov/ahc.

If you have any questions regarding this amendment, please do not hesitate to contact Nicole Weidenbenner, P.E., 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



Kendall B. Hale
Permits Section Chief

KBH:nwj

Enclosures

c: St. Louis Regional Office
PAMS File: 2017-10-038

Attachment A – PM₁₀ Compliance Worksheet

Koch Agronomics Services, LLC

St. Louis City

Project Number: 2017-10-035

Installation ID Number: 510-3001

This sheet covers the month of _____ in the year _____

Column 1		Column 2	Column 3	Column 4	Column 5	Column 6
EP #	Description	Amount of Monthly Material Throughput (tons)	PM ₁₀ Emission Factor (lb/ton)	Control Efficiencies per Drop Point (%)	# of Drop Points at specified Control Efficiency	Total Monthly Emissions (tons)
EP06	<i>Raw Material Conveyor System (Example)</i>	20,000	0.017	50	1	0.085
				98.5	3	0.008
EP13	3-way diverter bypass to floor (supersack loading)		0.017	3	1	
EP03-02	3-way diverter to Melter feed material silo		0.017	99.9	1	
EP03-01	3 way diverter to seed material silo		0.017	99.9	1	
EP08	boiler	(MMBtu)	0.002 lb/MMBtu	none		
EP03-11	crusher		6.78	98.901	1	
EP14	DCD bag unloader to DCD feed elevator hopper #1		0.017	3	1	
EP15	DCD feed elevator hopper #2 to DCD screw elevator		0.017	99.9	1	
EP03-03	DCD feed screw elevator to DCD feed elevator		0.017	99.9	1	
EP16	DCD feed elevator to DCD surge bin		0.017	99.9	1	
EP17	DCD screw feeder to DCD melt feed piping		0.017	3	1	
EP18	DCD surge bin discharger to DCD feed bin hopper		0.017	3	1	
EP04	diverter to fluid bed deduster		3.7	99.9	1	
EP09	Emergency Generator		12.60 lb/1000	none		

Column 1		Column 2	Column 3	Column 4	Column 5	Column 6
EP #	Description	Amount of Monthly Material Throughput (tons)	PM ₁₀ Emission Factor (lb/ton)	Control Efficiencies per Drop Point (%)	# of Drop Points at specified Control Efficiency	Total Monthly Emissions (tons)
		(1000 gallons)	gallons			
EU017b	final product conveyors to truck loading		0.017	3	1	
EP07	final product conveyors to LSCO warehouse		0.017	50	1	
EP05-01	fluid bed deduster to granulation drum		5.40	99	1	
EP02-02	fluid bed process cooler		3.7	99.9	1	
EP02-03	granulation drum to granulating drum grizzly		0.017	50	1	
EP02-01	grizzly to process cooler		0.017	50	1	
EP19	melter feed silo bin discharger to melter feeder hopper		0.017	50	1	
EP20	melter feed hopper to melter weigh belt feeder		0.017	50	1	
EP21	melter weigh belt feeder to melter feed transfer conveyor		0.017	98.901	1	
EP03-04	melter feed transfer conveyor to melter feed elevator		0.017	98.901	1	
EP03-09	process cooler to process screen feed elevator		0.017	99.9	1	
EP03-08	process screen bypass diverter to process screen		0.017	3	1	
EP03-07	process screen to internal recycle elevator		0.017	99.9	1	
EP03-06	recycle diverter to recycle surge bin		0.017	99.9	1	
EP01	process screen to product cooler		3.7	99.9	1	
EP03-10	product cooler to product/storage elevator		0.017	99.9	1	
EP22	product/storage elevator to final product conveyors		0.017	98.5	1	

Column 1		Column 2	Column 3	Column 4	Column 5	Column 6
EP #	Description	Amount of Monthly Material Throughput (tons)	PM ₁₀ Emission Factor (lb/ton)	Control Efficiencies per Drop Point (%)	# of Drop Points at specified Control Efficiency	Total Monthly Emissions (tons)
EP06	raw material conveyor system		0.017	98.901	3	
				50	1	
EP23	seed silo bin discharger to seed feed hopper		0.017	50	1	
EP24	seed feed hopper to seed weigh belt feeder		0.017	50	1	
EP25	seed weigh belt feeder to seed feed transfer conveyor		0.017	98.901	1	
EP03-05	seed feed transfer conveyor to drum feed elevator		0.017	98.901	1	
EP11	temporary portable conveyor SM (outdoor)-2 drop points		0.017	none	2	
EP12	temporary portable conveyor LG (Indoor)- 2 drop points		0.017	none	2	
EP05-02	urea melter emissions from melter feed splitter		0.017	99	1	
EP10	unpaved roads		0.142	none		
Summation and calculation of consecutive 12-month rolling total						
(b) Total PM ₁₀ emissions calculated for this month (tons):						
(c) 12-month rolling PM ₁₀ emissions total from previous month's worksheet (tons):						
(d) Monthly PM ₁₀ emissions total from previous year's worksheet (tons):						
(e) New 12-month rolling PM ₁₀ emissions total (tons):						

Instructions:

(a) Calculation methodology:

1. Enter monthly throughput of material for the specific emission unit in Column 2. For EP10, throughput is the amount of material loaded onto trucks.
2. Multiply Column 2 by the emission factor in Column 3. Multiply this value by (1-control efficiency) per drop point in Column 4, then multiply that value by the number of drop points in Column 5 and divide by 2000. Enter this value in Column 6. Repeat this step for all drop points assigned to that emissions unit.
 - a. Example: 2,000 tons of fertilizer passed through EP06 in the current month

$$20,000 \frac{\text{tons}}{\text{month}} \times 0.017 \frac{\text{lbs PM}_{10}}{\text{ton}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times (1 - .50 \text{ control}) \times 1 \text{ drop point} \\ = 0.085 \text{ tons (1 drop point at 50\% control)}$$

$$20,000 \frac{\text{tons}}{\text{month}} \times 0.017 \frac{\text{lbs PM}_{10}}{\text{ton}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times (1 - 0.985 \text{ control}) \times 3 \text{ drop points} = \\ 0.008 \text{ tons (3 drop points at 98.5\% control)}$$

(b) Summation of Column 6.

(c) 12-month rolling PM₁₀ emissions total from previous month's worksheet (tons).

(d) Monthly PM₁₀ emissions total from previous year's worksheet (tons).

(e) Calculate the new 12 month rolling PM₁₀ emissions total. **A total of less than 15.0 indicates compliance.** Start-up, shutdown, and malfunction emissions as reported to the Air Pollution Control Program's Compliance and Enforcement Section during the most recent 12 month period must be included in the rolling total.