Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
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SEP 0 7 2016

Mr. Tim Phillips
Operations Manager
Ray-Carroll County Grain Growers, Inc.
807 West Main Street
Richmond, MO 64085

RE: New Source Review Permit Amendment - Permit Number: 032013-004A
Project Number: 2016-05-044; Installation Number: 107-0068

Dear Mr. Phillips:

The Missouri Department of Natural Resources' Air Pollution Control Program recently received your request to amend Construction Permit 032013-004 for your grain elevator located 1.2 miles east of Highway 20 & State Highway V in Corder, Missouri. Your permit was amended to update the capture/ control efficiencies of the grain receiving, handling, and shipping operations to reflect the same values recently applied to similar operations at other Ray-Carroll County Grain Growers, Inc. installations.

In Construction Permit 032013-004, Ray-Carroll County Grain Growers, Inc. constructed a new grain elevator with an overall maximum design rate of 1,680 tons per hour. The facility has the ability to receive and ship grain by trucks or railcars, and a grain dryer is used on-site. Installation wide PM_{10} emissions were voluntarily limited below the de minimis level, a baghouse was used to control emissions from the two receiving pits, and chemical dust suppressants were applied to haul roads. The receiving pits were given a 70% capture efficiency for particulate matter, and the grain handling conveyors/ legs were given a 3.7% capture efficiency for building enclosure. The use of chemical dust suppressants on haul roads was given a 90% control efficiency for PM and PM_{10} and a 40% control efficiency for $PM_{2.5}$.

During the review of Ray-Carroll County Grain Growers, Inc.'s Carrollton facility (Project 2015-08-002), it was determined that the ventilation system on the receiving pits achieves a capture efficiency of 90% for all particulate matter. Because the Corder facility uses a similar ventilation system, the same capture efficiency was applied to the receiving pits at this installation. All grain handling conveyors/ legs at the grain elevator have totally enclosed tops and are routed to a baghouse, so they were also given a capture efficiency of 90%, instead of the 3.7% previously applied for only having building enclosure. The baghouse that controls emissions from the

receiving pits and the grain handling equipment was given a control efficiency of 99.5% for PM and PM_{10}, and a control efficiency of 99% for $PM_{2.5}$. The control efficiency associated with the use of chemical dust suppressants on haul roads will remain the same.

Ray-Carroll County Grain Growers, Inc. is also proposing to begin applying mineral oil to all grain shipped out by truck. The application of mineral oil was given a 60% control efficiency for all particulate matter, similar to Ray-Carroll County Grain Growers, Inc.'s Carrollton facility.

The emission factors used in this analysis were obtained from the EPA document AP-42 *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 9.9.1 *Grain Elevators and Processes* (May 2003) and Section 1.5 *Liquefied Petroleum Gas Combustion* (July 2008). Emissions from haul roads were calculated using the predictive equations from AP-42 Section 13.2.1 *Paved Roads* (January 2011) and Section 13.2.2 *Unpaved Roads* (November 2006).

The following table provides an emissions summary for the project. Existing potential emissions were taken from the installation's previous construction permit (032013-004). Existing actual emissions were taken from the installation's 2014 EIQ (the most recent full EIQ performed). Potential emissions of the installation represent the potential of the entire facility (listed in Table 2) after accounting for the use of the aforementioned control devices' updated capture/ control efficiencies and assuming continuous operation (8,760 hours per year). Conditioned potential emissions of the installation represent the potential of the entire facility after voluntarily limiting PM_{10} emissions below the de minimis level.

Table 1. Emissions Summary (tons per year)

Pollutant	Regulatory *De Minimis* Levels	Existing Potential Emissions	Existing Actual Emissions (2014 EIQ)	Potential Emissions of the Installation	Conditioned Potential Emissions of the Installation
PM	25.0	42.93	N/D	1,119.06	52.20
PM_{10}	15.0	<15.0	10.11	321.56	<15.0
$PM_{2.5}$	10.0	3.14	2.05	83.17	3.88
SO_x	40.0	N/D	0.05	2.72	N/D
NO_x	40.0	N/D	0.48	23.56	N/D
VOC	40.0	N/D	0.03	1.81	N/D
CO	100.0	N/D	0.28	13.59	N/D
Total HAPs	25.0	N/D	N/D	0.31	N/D

N/A = Not Applicable

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.oa.mo.gov/ahc.

If you have any questions regarding this amendment, please do not hesitate to contact Ryan Schott 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

Kendall B. Hale
Permits Section Chief

KBH:rsj

Enclosures

c: Kansas City Regional Office
PAMS File: 2016-05-044