



Eric R. Greitens, Governor • Carol S. Comer, Acting Director

DEPARTMENT OF NATURAL RESOURCES

dnr.mo.gov

FEB 28 2017

Mr. Joe Garuccio
Environmental, Health & Safety Manager
Lange-Stegmann Company
1 Angelica Street
St. Louis, MO 63147

RE: New Source Review Permit Amendment - Permit Number: 062016-011A
Project Number: 2017-02-001; Installation Number: 510-0468

Dear Mr. Garuccio:

The Air Pollution Control Program has received your January 30, 2017 request to amend construction permit 062016-011 to increase the paved haul road silt loading from 0.5 g/m² to 3.0 g/m². Initial testing performed in September through November of 2016 indicates a silt loading of 3.0 g/m² better represents the conditions at the installation. The Program has also received notification that all haul roads are paved and has received the potential emissions calculations for the installation. This permit amendment modifies Construction Permit 062016-011, Special Condition 6 to increase the silt loading and remove the optional paving requirement; and removes Special Condition 8 which requires the submission of potential emissions. Please replace the special conditions of Construction Permit 062016-011 with the revised conditions included with this letter.

Increasing the silt loading results in increased haul road emission factors and project potential emissions. The PM₁₀ emission limitation in Construction Permit 062016-011 does not change, as it is based on de minimis plus baseline actual emissions. Construction Permit 062016-011 Tables 6 and 7 have been updated to reflect this amendment.

Amended Table 6: Past actuals to future potential analysis

Pollutants	Controlled PTE of this project (tons/yr)	Past actuals of EP-9, EP-10, and haul roads (tons/year)	Project PTE minus past actuals (Baseline actual emissions) (tons/year)	Scaled to PM ₁₀ value of de minimis + past actual (tons/year)
PM	680.85	5.00	675.84	56.62
PM ₁₀	205.55	2.05	203.50	17.05
PM _{2.5}	46.27	0.40	45.86	3.84



Recycled paper

Amended Table 7: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions ¹	Existing Actual Emissions (2015 EIQ)	Potential Emissions of the Amended Project ²	Amended Conditioned Potential ³
PM	25.0	ND	NR	56.62	ND
PM ₁₀	15.0	43.11	13.71	17.05	43.11
PM _{2.5}	10.0	9.33	1.84	3.84	10.36
SOx	40.0	ND	NR	ND	ND
NOx	40.0	ND	NR	ND	ND
VOC	40.0	ND	2.81	ND	ND
CO	100.0	ND	NR	ND	ND
GHG (CO _{2e})	NA	ND	NR	ND	ND
GHG (mass)	NA	ND	NR	ND	ND
HAPs	10.0/25.0	ND	NR	ND	ND

ND = Not Determined; NR=Not Reported; NA=Not Applicable

¹Existing potential emissions were taken from Operating Permit project 2016-12-027. These values include calculated values of 17.05 PM₁₀ and 2.81 PM_{2.5} from Construction Permit 062016-011 and emissions from point source EP5, loading of fertilizer domes (26.06 PM₁₀ and 6.52 PM_{2.5}). Fugitive particulate sources not already included in Construction Permit 062016-011 and tank volatile organic compounds were not evaluated in the Operating Permit project.

²Potential emissions of the amended project accounts for paved haul roads and increased silt loading.

³Fugitive particulate sources not already included in Construction Permit 062016-011 and tank volatile organic compounds are not included. Includes potential emissions of EP5.

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.

Mr. Garuccio
Page Three

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

Kendall B. Hale
Permits Section Chief

KBH:nwj

Enclosures

c: St. Louis Regional Office
PAMS File: 2017-02-001

Page No.	4
Permit No.	062016-011A
Project No.	2017-02-001

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."

Lange-Stegmann Co.
St. Louis City County, Land grant #01342

1. **Superseding Condition**
The conditions of this permit supersede all special conditions found in the previously issued construction permits #98-12-080, 00-11-047, and 042007-018, and any amendments, corrections, or permit matters¹ associated with those permits.
2. **PM₁₀ Emission Limitations**
 - A. Lange-Stegmann Co. shall emit less than 17.05 tons of PM₁₀ in any consecutive 12-month period from the emission sources listed in Table 3.
 - 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 Condition 2.A.
3. **Operational Limitations-Warehouse**
 - A. Lange-Stegmann Co. shall keep all warehouse doors closed at all times except during personnel or equipment entrance or egress.
 - B. Lange-Stegmann shall operate and maintain the ventilation system of the warehouse such that negative pressure is maintained at all warehouse openings and all internal air passes through the EP-19A or EP-19B baghouses.
 - C. The permittee shall demonstrate negative pressure once a quarter as required. This demonstration may be done by using streamers or puff tests on building openings or an alternative method. The results shall be documented. When documentation indicates that negative pressure has been maintained for four consecutive quarters, this demonstration requirement shall sunset and additional demonstrations are no longer required.

¹ Permit Matter documents were issued by St. Louis City Air Program and are similar to permit amendments, however they are not titled as such.

Page No.	5
Permit No.	062016-011A
Project No.	2017-02-001

SPECIAL CONDITIONS:

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

4. Control Device Requirement-Baghouses
 - A. Lange-Stegmann Co. shall control emissions from the equipment contained in this permit as specified in Table 3.
 - B. If Lange-Stegmann Co. operates CD7 and CD7A as currently designed, the compliance records shall use the overall control efficiencies in the 'current design' column of the table below. Alternatively, Lange-Stegmann Co. has the option to permanently modify the design so that CD-7 and CD-7A are operated with a damper system such that when product is transferred to EP10S2, the pickup point located at EP-10 is closed off. When product is transferred to truck/railcar loading activities at EP-10, the pickup point at EP10S2 shall be closed off. After these modifications are complete, the compliance records shall use the overall control efficiencies in the 'modified design' column of the table below. If Lange-Stegmann Co. performs these alternative modifications, notification shall be submitted to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 30 days after the completion of the modifications.

Table 1: Overall Control Efficiencies for CD7 and CD7A

Emission points	Current design	Modified design
EP-10 series	49.75%	79.6%
EP-10S2 spout to BC-222	89.5%	98.5%

- C. Lange-Stegmann Co. shall install a baghouse pickup point from baghouse 19A on the enclosed drop point of belt conveyor BC-219a to belt conveyor BC-219b.
- D. The baghouses shall be operated and maintained in accordance with the manufacturer's specifications. The baghouses 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 Department of Natural Resources' employees may easily observe them.
- E. 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). Baghouses CD-19A, 19B, and 20 shall use the same type of bags as documented in the construction permit application.

Page No.	6
Permit No.	062016-011A
Project No.	2017-02-001

SPECIAL CONDITIONS:

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

- F. Lange-Stegmann Co. 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.
 - G. Lange-Stegmann Co. shall maintain a copy of the baghouses' operations and maintenance manual or equivalent on site.
 - H. Lange-Stegmann Co. 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.
5. Control Device Requirement-Enclosure
- A. The enclosed drop points identified in Table 3 shall be completely enclosed. The enclosure shall be constructed and maintained such that no visible emissions are allowed to occur from these sources except through baghouse pickup points.
 - B. Lange-Stegmann Co. shall conduct a detailed visual inspection of the enclosures listed in Table 3 once every six months to ensure compliance with Special Condition 5.A. A record shall be maintained acknowledging that the enclosures have been inspected.
6. Operational Requirements-Haul Roads
- A. The silt loading shall not exceed 3.0 grams/meter² on any of the paved haul roads at the installation.
 - B. Lange-Stegmann Co. shall develop, maintain, and implement a Fugitive Dust Control Plan (FDCP) that will control emissions from haul roads to comply with Special Condition 6.A. The FDCP shall at a minimum include control and/or cleaning methods and establish a documentation procedure for the control and/or cleaning methods.
 - C. Compliance with the silt loading limitation in Special Condition 6.A. shall be demonstrated by conducting a series (as defined in Appendix C of AP-42) of silt loading performance tests. The silt loading tests shall be representative (as defined in Appendix C of AP-42) and conducted in accordance with ASTM-c-136 method. Testing cannot be done immediately after cleaning. If there is a regular

SPECIAL CONDITIONS:

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

cleaning schedule, testing shall be done at the midpoint of the cleaning cycle (i.e. if cleaning is scheduled every 8 hours, then testing must be done at the midpoint of 4 hours). A summary of the testing method is found in Appendix C of AP-42. Testing shall be conducted according to the following schedule:

- A. Initial testing shall be conducted within 30 days of issuance of this permit amendment. Should the testing yield no exceedance of the limit during this period then,
 - B. Testing shall be conducted one a quarter for four consecutive quarters. Should the testing yield no exceedance of the limit during this period then,
 - C. Testing shall be conducted once annually.
 - D. If at any time an exceedance is shown, testing shall be conducted within 30 days and progress in a manner according to the above schedule.
- D. Lange-Stegmann, Co. shall use the following emission factors to quantify PM₁₀ emissions from the haul roads:

Table 2: Haul road emission factors in lb PM₁₀/ton of product

Haul Road	Emission Factor
HR1	0.0055
HR2	0.0033
HR2a	0.0069
HR2b	0.0067
HR3a	0.0063
HR3b	0.0061

- E. Two copies (one hardcopy, one electronic) of the full test report and results shall be submitted to the Compliance/Enforcement Section within 60 days of completion of the initial testing. At a minimum, the report shall include sample road segment locations, recent weather conditions, HEPA vacuum bag model number, cleaning method and schedule, sampling date/time, tons of material received and shipped on the sampling day compared to the permitted capacity, legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required EPA Method for at least one sample run. Subsequent test results shall be kept on site.
- F. For each week of operation, the installation shall conduct a survey of the plant property and haul roads to determine if visible fugitive emissions are being generated and if these emissions are leaving the plant property. Documentation of all corrective actions and daily surveys shall be maintained.

Page No.	8
Permit No.	062016-011A
Project No.	2017-02-001

SPECIAL CONDITIONS:

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

7. Record Keeping and Reporting Requirements
 - A. Lange-Stegmann Co. 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.
 - B. Lange-Stegmann Co. shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 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.