



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: 102015-010

Project Number: 2014-11-062
Installation Number: 186-0035

Parent Company: Lhoist North America

Parent Company Address: P.O. Box 985004, Fort Worth, TX 76185

Installation Name: Lhoist North America of Missouri, Inc.

Installation Address: 20947 White Sands Road, Ste. Genevieve, MO 63670

Location Information: Ste. Genevieve County, S17, T38N, R9W

Application for Authority to Construct was made for:
Installation of a new lime hydration line. 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.

Prepared by
J Luebbert
New Source Review Unit

Director or Designee
Department of Natural Resources

OCT 28 2015

Effective Date

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 Department's 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.

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."

Lhoist North America of Missouri, Inc.
Ste. Genevieve County, S17, T38N, R9W

1. Control Device Requirement-Baghouse

- A. Lhoist North America of Missouri, Inc. shall control particulate emissions from the emission units in Appendix B, which are stated as having baghouses, by enclosing and venting each particulate emission source listed in Appendix B to a baghouse. The enclosures of the emissions units shall be constructed and maintained such that no visible emissions are allowed to occur from these sources except through the gases exiting from the baghouse.
- 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. On the days when the equipment is running, Lhoist North America of Missouri, Inc. shall conduct a daily examination on the baghouses listed in Appendix B. This shall be completed during the daily workplace examinations. During the examination, the person completing the workplace exam shall visually inspect and record that all emission control devices are working as per manufacturer's guidelines.
- E. Lhoist North America of Missouri, Inc. shall monitor and record the operating pressure drop across the baghouses listed in Appendix B at least once per week. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- F. Lhoist North America of Missouri, Inc shall submit the fan curves for the fans associated with the baghouses listed in Appendix B to the Air Pollution Control Program within 30 days of equipment start-up.

SPECIAL CONDITIONS:

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

- G. Lhoist North America of Missouri, Inc. 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.

- 2. Control Device Requirement-Custom Process Filter
 - A. Lhoist North America of Missouri, Inc. shall control particulate emissions from the emission units listed in Appendix B which are stated as having custom process filter by enclosing and venting each particulate emission source listed in Appendix B to the custom process filter. The enclosures of the emissions units shall be constructed and maintained such that no visible emissions are allowed to occur from these sources except through the gases exiting from the custom process filter.

 - B. The custom process filter shall be operated and maintained in accordance with the manufacturer's specifications. The custom process filter 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 custom process filter shall be kept on hand at all times. The filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

 - D. On the days when the equipment is running, Lhoist North America of Missouri, Inc. shall conduct a daily examination on the custom process filter listed in Table 1. This shall be completed during the daily workplace examinations. During the examination, the person completing the workplace exam shall visually inspect and record that all emission control devices are working as per manufacturer's guidelines.

 - E. Lhoist North America of Missouri, Inc. shall monitor and record the operating pressure drop across the custom process filter listed in Table 1 at least once per week. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

SPECIAL CONDITIONS:

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

- F. Lhoist North America of Missouri, Inc shall submit the fan curve for the fan associated with the custom process filter listed in Table 1 to the Air Pollution Control Program within 30 days of equipment start-up.
 - G. Lhoist North America of Missouri, Inc. shall maintain an operating and maintenance log for the custom process filter 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.
3. Control Measure – Capture Efficiency (100%)
- A. Emission units listed in Appendix B as having baghouse or custom process filter control shall be totally enclosed and maintained under negative pressure and vented to its respective baghouse or custom process filter.
 - B. If any openings or holes should appear on emission units listed in Appendix B as having baghouse or custom process filter control due to wear or maintenance activities these openings or holes shall maintain negative pressure.
 - C. Lhoist North America of Missouri, Inc. shall demonstrate negative pressure at all emission unit openings listed in Appendix B as having baghouse or custom process filter control by using visual indicators such as streamers, talc puff test, negative pressure gauges, flags, etc. at openings that are not closed during normal operations. These openings shall include but are not limited to head boxes, drop point opening, etc. All openings, when operating, must indicate the presence of negative pressure for compliance.
 - D. During the hydrated lime truck loading operation (SP-4562) Lhoist North America of Missouri, Inc. shall keep all doors entering and exiting the truck loadout building completely closed.
 - E. Lhoist North America of Missouri, Inc. shall maintain an operating and maintenance log for the storage equipment and process equipment which shall include the following:
 - 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions.
 - 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
 - 3) A record of regular inspection schedule, the date and results of all

SPECIAL CONDITIONS:

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

inspections, including any actions or maintenance activities that result from the inspections. Either paper copy or electronic formats are acceptable.

4. Record Keeping and Reporting Requirements

- A. Lhoist North America of Missouri, Inc. 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 MSDS for all materials used.
- B. Lhoist North America of Missouri, Inc. 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 show an exceedance of a limitation imposed by this permit.

5. Performance Testing

- A. Lhoist North America of Missouri, Inc. shall conduct performance testing on the baghouses and custom process filter listed below in order to verify that the grain loadout and emission rates in Table 1 for PM is not exceeded. The following conditions shall be measured and recorded during the test:
 - 1) The baghouse and custom process filters' filterable PM emission factor in grains per standard cubic feet (gr/dscf) using the U.S. EPA Method 201, 201A, 17, or 5. Other Air Pollution Control Program preapproved methods may be substituted for any of the above EPA test methods.
 - 2) The baghouse and custom process filters' respective flowrate in DSCFM using methods preapproved by the Air Pollution Control Program.
 - 3) The baghouse and custom process filters' respective pressure drop in inches of water column.
 - 4) The baghouse and custom process filters' respective emission rate, lbs/hr.
 - 5) Process material throughput, tph.

Table 1: Emission Rates from the Baghouses and Custom Process Filter

Control Device	Controlled Emission Units	Emission Point	MHDR (tph)	Control Device Fan Flow Rate (dscfm)	Grain Loadout (gr/dscf)	Controlled PM, Emission Rates (lb/hr)

SPECIAL CONDITIONS:

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

DC-4516 – Baghouse	HD-4513	EP-269	■	3,734	0.005	0.16
PF-4532 Custom Process Filter	Transfer from ML-4530 to SC-4540	EP-270	■	22,405	0.005	0.96
DC-4570 - Baghouse	BN-4570	EP-272	■	3,000	0.005	0.13

- B. Lhoist North America of Missouri, Inc. shall perform a stack test on DC-4516 and PF-4532 by performing EPA test method 18, or other preapproved test method, on the lime hydration system while the plant is fully operational. This test shall be conducted within 10% of the maximum hourly production rate. The results from the stack tests shall be used to calculate actual and potential HAP and VOC emissions as mass. Lhoist North America shall verify, by the testing required by this special condition, that maximum hourly VOC emissions does not exceed 9.13 pounds of VOC per hour.
- C. These tests shall be performed within 60 days after achieving the maximum production rate of the installation, but not later than 180 days after initial start-up of the Hydrator (HD-4513) for commercial operation. These tests shall be conducted at the MHDR in listed Table 1 or within 10 percent of the MHDR. If the tests are conducted below 90 percent of the MHDR, then the tested production rate is the new MHDR. If the tested production rate is below 90 percent of the true MHDR, Lhoist North America of Missouri, Inc. will be allowed to operate at 10 percent above the tested production rate and not have to retest. These tests shall be conducted in accordance with the Stack Test Procedures outlined in Special Condition 5.A.
- D. A completed Proposed Test Plan Form (enclosed) must be submitted to the Air Pollution Control Program 30 days prior to the proposed test date so that the Air Pollution Control Program may arrange a pretest meeting, if necessary, and assure that the test date is acceptable for an observer to be present. The Proposed Test Plan may serve the purpose of notification and must be approved by the Director prior to conducting the required emission testing.

SPECIAL CONDITIONS:

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

- E. Two copies of the written reports of the performance test results shall be submitted to the Director within 30 days of completion of any required testing. The report must include legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required U.S. EPA Method for at least one sample run.
- F. The test report is to fully account for all operational and emission parameters addressed both in the permit conditions as well as in any other applicable state or federal rules or regulations.
- G. If the results of the performance testing show that the tested particulate emission rates are greater than the stack emission rates (Table 1), or that the tested VOC emission rate is greater than 9.13 pounds per hour, then Lhoist North America of Missouri, Inc. shall evaluate what effects these higher emission rates would have had on the permit applicability, modeling applicability, and emission factors for compliance and emission inventory. Lhoist North America of Missouri, Inc. shall submit to the Air Pollution Control Program the results of any such evaluation in a completed Application for Authority to Construct within 30 days of submitting the Performance Test Results report required in Special Condition 5.D. of this permit.

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

Project Number: 2014-11-062
Installation ID Number: 186-0035
Permit Number:

Installation Address:

Lhoist North America of Missouri, Inc.
20947 White Sands Road
Ste. Genevieve, MO 63670

Parent Company:

Lhoist North America
P.O. Box 985004
Fort Worth, TX 76185

Ste. Genevieve County, S17, T38N, R9W

REVIEW SUMMARY

- Lhoist North America of Missouri, Inc. has applied for authority to install a new lime hydration line.
- The application was deemed complete on December 12, 2014
- The HAP emissions are expected to remain well below all representative SMALs. This will be verified by the requirement of Special Condition 5 of this permit.
- 40 CFR 60 Subpart HH, "Standards of Performance for Lime Manufacturing Plants" applies to the source but does not apply to the proposed equipment in this project.
- 40 CFR 60 Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" applies to the proposed equipment in this project.
- 40 CFR 63, Subpart AAAAA, "National Emission Standard for Hazardous Air Pollutants for Lime Manufacturing Plants", applies to the source but not to the proposed equipment because the processed stone handling requirements apply to the limestone feed prior to the kiln and do not apply to the finished lime product.
- Baghouses are being used to control the PM, PM₁₀ and 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*. Controlled potential emissions of PM_{2.5}, PM₁₀, PM and VOC are below de minimis levels.
- This installation is located in Ste. Genevieve 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 below de minimis levels.
- Emissions testing are required for the equipment.
- An amendment to your Part 70 Operating Permit is required for this installation within 1 year of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Lhoist North America of Missouri, Inc. (formerly Chemical Lime Company) operates a [REDACTED] ton per day lime manufacturing plant near Ste. Genevieve. Raw limestone is transported to the site from a nearby quarry (Tower Rock Stone). The limestone is calcined in two solid fuel fired (supplemented with natural gas) rotary preheater kilns. Product lime is then transported to customers by barge, rail, and truck. Fuel in the form of coal and coke arrives at the plant via barge, rail, or truck and is stored in covered bins.

Lhoist North America of Missouri, Inc. (Lhoist) is considered a major source under construction permits and a Part 70 source under operating permits. A Part 70 operating permit was issued February 5 of 2010 (OP2010-016). Table 2 lists the construction permits that have been issued to Lhoist from the Air Pollution Control Program.

Table 2: Permit History

Permit Number	Description
1294-004	Lime kiln
1298-023	Temporary Permit for transfer of iron ore
012000-021	Temporary Permit for coal hopper
012001-004	Temporary Permit for coal hopper
092001-005	Installation of emergency reject bin, modification of BN-809 system and increase feeding rate on BN-411 weigh feeder.
092010-111	Limestone Storage
092010-111A	Removal of baghouse requirement (EP-227) on transfer emission point from BC-363 to BC-365
032014-009	Lime hydration line

PROJECT DESCRIPTION

Lhoist is installing a lime hydration line at their Ste. Genevieve location for manufacturing slaked lime from calcium oxide (quicklime). The quicklime is manufactured at the Lhoist facility and used as the feedstock for the lime hydration facility. The hydrated lime products will be manufactured by controlled hydration in an atmospheric hydrator.

The lime hydration line consists of material storage and transfer equipment, lime hydration equipment, and product loadout operations. All emission points within the process are either controlled by a baghouse or a process filter.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Lhoist North America has requested confidentiality for this project to protect trade secrets. The confidential version of this project may be found under project number 2014-11-063.

EMISSIONS/CONTROLS EVALUATION

The potential emissions from this project were calculated using the grain loadout rating of each individual baghouse and process filter. Each baghouse and process filter has an estimated grain loadout rating of 0.005 grains per dry standard cubic foot (gr/dscf). Using the maximum flow rate of each control device, the potential emissions from the equipment was calculated. The estimated flow rate of each control device is summarized in the table below. A capture efficiency of 100% was given to each process as it is required to implement grain loadout as a method to calculate potential emissions from equipment. Lhoist shall demonstrate 100% capture per the special conditions of this permit.

Table 3: Flow Rate of Each Control Device

Emission Point	Description of Controlled Emission Unit	Flow Rate (dscf)
EP-269	Hydrator	3,734
EP-270	Transfer from [REDACTED] to screw conveyor (ML-4530 to SC-4540)	22,405
EP-271	Storage bin (BN-4538)	2,000
EP-272	Storage silos (BN-4570)	3,000
EP-273	Truck loadout (SP-4562)	1,800

The truck loadout area occurs within an enclosed building with roll up doors at the entrance and exit. Per the special conditions of this permit Lhoist shall keep all doors that enter and exit the truck loading building closed at all times during product loading into trucks.

The VOC potential emissions from this project were estimated based on a test conducted by Lhoist North America. However, the test was unable to confirm potential VOC emissions because the test method does not detect all volatile HAPs emitted. Therefore, Special Condition 5 of this permit requires Lhoist North America to test emissions from the hydrator using applicable stack test methods to verify potential emissions.

Potential emissions from the [REDACTED] process heater (EU-4545) were estimated using emission factors from the [REDACTED].

Quicklime is the feedstock of the hydrated lime process. Lhoist produces its own quicklime to feed the hydration process. This project does not allow Lhoist to increase the production of quicklime or essentially debottleneck the quicklime production line. It is expected that the same amount of total product in tons will be shipped from Lhoist whether it be as quicklime or hydrated lime. The truck loading emission point for the quicklime is at the same location as the truck loadout for the hydrated lime within the Lhoist facility. With the same amount of total product expected to be shipped no increase in haul road emissions would occur, therefore no haul road emissions were calculated for this project.

The following table provides an emissions summary for this project. Existing actual emissions were taken from the installation's 2014 EIQ. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year).

Table 4: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2014 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM	25.0	Major	N/D	7.35	N/A
PM ₁₀	15.0	Major	143.98	7.35	N/A
PM _{2.5}	10.0	Major	59.72	7.35	N/A
SO _x	40.0	Major	17.75	0.04	N/A
NO _x	40.0	Major	1,516.64	7.45	N/A
VOC	40.0	Major	13.93	*0.41	N/A

CO	100.0	Major	30.52	6.25	N/A
HAPs	10.0/25.0	Major	15.64	0.14	N/A

N/A = Not Applicable ; N/D – Not Determined

*Potential VOC and HAP emissions do not include potential that will be estimated in accordance with Special Condition 5 of this permit.

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}, PM₁₀, PM and VOC are below de minimis levels.

APPLICABLE REQUIREMENTS

Lhoist North America of Missouri, Inc. 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. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
 - Per 10 CSR 10-6.110(4)(B)2.B(II) and (4)(B)2.C(II) a full EIQ is required for the first full calendar year the equipment (or modifications) approved by this permit are in operation.
- *Operating Permits*, 10 CSR 10-6.065
- *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

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- 40 CFR 60 Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants"

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*, it is recommended that this permit be granted with special conditions.

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated November 24, 2014, received November 26, 2014, designating Lhoist North America as the owner and operator of the installation.

APPENDIX A

Abbreviations and Acronyms

%	percent	m/s	meters per second
°F	degrees Fahrenheit	Mgal	1,000 gallons
acfm	actual cubic feet per minute	MW	megawatt
BACT	Best Available Control Technology	MHDR	maximum hourly design rate
BMPs	Best Management Practices	MMBtu	Million British thermal units
Btu	British thermal unit	MMCF	million cubic feet
CAM	Compliance Assurance Monitoring	MSDS	Material Safety Data Sheet
CAS	Chemical Abstracts Service	NAAQS ...	National Ambient Air Quality Standards
CEMS	Continuous Emission Monitor System	NESHAPs	National Emissions Standards for Hazardous Air Pollutants
CFR	Code of Federal Regulations	NO_x	nitrogen oxides
CO	carbon monoxide	NSPS	New Source Performance Standards
CO₂	carbon dioxide	NSR	New Source Review
CO_{2e}	carbon dioxide equivalent	PM	particulate matter
COMS	Continuous Opacity Monitoring System	PM_{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
CSR	Code of State Regulations	PM₁₀	particulate matter less than 10 microns in aerodynamic diameter
dscf	dry standard cubic feet	ppm	parts per million
EQ	Emission Inventory Questionnaire	PSD	Prevention of Significant Deterioration
EP	Emission Point	PTE	potential to emit
EPA	Environmental Protection Agency	RACT	Reasonable Available Control Technology
EU	Emission Unit	RAL	Risk Assessment Level
fps	feet per second	SCC	Source Classification Code
ft	feet	scfm	standard cubic feet per minute
GACT	Generally Available Control Technology	SDS	Safety Data Sheet
GHG	Greenhouse Gas	SIC	Standard Industrial Classification
gpm	gallons per minute	SIP	State Implementation Plan
gr	grains	SMAL	Screening Model Action Levels
GWP	Global Warming Potential	SO_x	sulfur oxides
HAP	Hazardous Air Pollutant	SO₂	sulfur dioxide
hr	hour	tph	tons per hour
hp	horsepower	tpy	tons per year
lb	pound	VMT	vehicle miles traveled
lbs/hr	pounds per hour	VOC	Volatile Organic Compound
MACT	Maximum Achievable Control Technology		
µg/m³	micrograms per cubic meter		

Appendix B: Emission Unit Summary
 Lhoist North America of Missouri, Inc.
 Ste. Genevieve County, S17, T38N, R9W
 Project Number: 2014-11-062
 Installation Number: 186-0035

Emission Unit	Emission Point	Description	Control Device No.	Description
HD-4513	EP-269	Quicklime, Hydrator	DC-4516	Baghouse
ML-4530 to SC-4540	EP-270	Transfer from [REDACTED] to screw conveyor	PF-4532	Process Filter
BN-4538	EP-271	Storage Bin	DC-4539	Baghouse
BN-4570	EP-272	Storage Silos	DC-4570	Baghouse
SP-4562	EP-273	Truck Loadout	DC-4563	Baghouse
EU-4545	EP-274	Process Heater	None	None

Mr. Schuyler Johnson
Environmental, Health and Safety Manager
Lhoist North America of Missouri, Inc.
P.O. Box 488
Ste. Genevieve, MO 63670

RE: New Source Review Permit - Project Number: 2014-11-062

Dear Mr. Johnson:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions 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, your new source review permit application and with your amended operating permit 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 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, Truman State Office Building, Room 640, 301 W. High Street, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.oa.mo.gov/ahc.

Mr. Schuyler Johnson
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If you have any questions regarding this permit, please do not hesitate to contact J Luebbert, at the Department of Natural Resources' 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:jl

Enclosures

c: Southeast Regional Office
PAMS File: 2014-11-062

Permit Number: