



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: **072013-016**

Project Number: 2013-05-070
Installation Number: 510-0070

Parent Company: ICL Performance Products LP

Parent Company Address: 622 Emerson Road, Suite 500, St. Louis, MO 63141

Installation Name: ICL Performance Products LP

Installation Address: 8201 Idaho Avenue, St. Louis, MO 63111

Location Information: St. Louis City County, LG 3102

Application for Authority to Construct was made for:

The activation of the North Lime Silo, EP-26. It has been abandoned in place since 2003. ICL will install a new dust collector, lime truck blow-off and silo discharge equipment on this silo. Total lime usage in the plant will not change. 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.

JUL 29 2013

EFFECTIVE DATE

Kyra L. Moore

DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

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.

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Project No.	2013-05-070

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."

ICL Performance Products LP
St. Louis City County, LG31025

1. Control Device Requirement-Baghouse
 - A. ICL Performance Products LP shall control emissions from the North Lime Silo, EP-26, using a baghouse (CD-74) as specified in the permit application.
 - B. ICL Performance Products LP shall operate and maintain the baghouse, CD-74, in accordance with the manufacturer's specifications.
 - C. ICL Performance Products LP shall equip the baghouse with a gauge or meter, which indicates the pressure drop across the control device.
 - D. ICL Performance Products LP's personnel shall read and document the pressure drop readings displayed by the instrumentation for the North Lime Silo sometime during the unloading process.
 - E. ICL Performance Products LP shall monitor and record the operating pressure drop across the baghouse, CD-74, at least weekly, if used. ICL Performance Products LP shall maintain the operating pressure drop within the design conditions specified by the manufacturer's performance warranty.
 - F. ICL Performance Products LP shall keep replacement filters for the baghouse 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).
 - G. ICL Performance Products LP shall maintain a copy of the baghouse manufacturer's performance warranty on site.
 - H. ICL Performance Products LP shall maintain an operating and maintenance log for the baghouse, CD-74, which shall include the following:

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SPECIAL CONDITIONS:

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

- 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. Record Keeping and Reporting Requirements
- A. ICL Performance Products LP 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. ICL Performance Products LP 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 show an exceedance of a limitation imposed by this permit.

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

Project Number: 2013-05-070
Installation ID Number: 510-0070
Permit Number:

ICL Performance Products LP
8201 Idaho Avenue
St. Louis, MO 63111

Complete: May 30, 2013

Parent Company:
ICL Performance Products LP
622 Emerson Road, Suite 500
St. Louis, MO 63141

St. Louis City County, T44N, R6E

REVIEW SUMMARY

- ICL Performance Products LP has applied for authority to activate the North Lime Silo, EP-26. It has been abandoned in place since 2003. ICL will install a new dust collector (CD-74), lime truck blow-off and silo discharge equipment on this silo. Use of this silo, in addition to the South Lime Silo, EP-98, currently in use, will allow for the separation and storage of different lime grades (i.e. the more costly, low aluminum lime will be stored and used separately from regular lime). Total lime usage in the plant will not change.
- HAP emissions are not expected from the proposed equipment.
- None of the NESHAPs apply to this installation. None of the currently promulgated MACT regulations apply to the proposed equipment.
- A baghouse is being used to control the particulate matter 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 particulate matter, considering the required particulate matter control device, are below the de minimis levels.
- This installation is located in St. Louis City, a nonattainment area for the 8-hour ozone standard and the PM-2.5 standard and an attainment area for all other criteria pollutants.
- This installation is on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 100 tons per year and fugitive emissions are counted toward major source applicability.

- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- A Part 70 Operating Permit application revision is required for this installation within 1 year of commencement of operations.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

ICL Performance Products LP (ICL) owns and operates a phosphate salts production installation (SIC #2819) at 8201 Idaho Avenue in the City of St. Louis near the southern city limit, River des Peres and St. Louis County. The installation is on the list of named installations in 10 CSR 10-6.020 Definitions and Common Reference Tables Section (3)(B), Table 2, number 20, Chemical process plants. The installation receives bulk raw materials including phosphoric acid (H₃PO₄), lime and other chemicals. ICL combines these raw materials and produces desired salts including sodium tripolyphosphate (STPP), sodium aluminum phosphate (SALP), monocalcium phosphate (MCP), dicalcium phosphate (DCP) and tricalcium phosphate (TCP). The salts are processed to obtain the desired moisture content and grain size, then either packed into bags or shipped in bulk to external customers.

ICL has the potential to emit PM₁₀, PM_{2.5}, nitrogen oxides (NO_x) and sulfur oxides (SO_x) above the Part 70 “major source” threshold level of one hundred (100) tons per year. The installation does not emit a significant amount of HAP. ICL has a Part 70 Operating Permit (OP2004-005) that expired 24 February 2009 and has a valid renewal application on file.

Table 1 lists the permits issued to this ICL installation by St. Louis City or the Missouri Department of Natural Resources Air Pollution Control Program (MDNR-APCP).

The following New Source Review permits have been issued to ICL Performance Products LP from the Air Pollution Control Program.

Table 1: Permit History

<i>Permit Date or Number</i>	<i>Description</i>
January 22, 1969	City of Saint Louis Source Registration Form for a bag packaging machine St. Regis, double spout, force flow, valve bags (EP-20)
May 19, 1972	City of Saint Louis Source Registration Form for manufacture of sodium tripolyphosphate (EP-41)
December 17, 1973 (approved 9/10/74)	City of Saint Louis Source Registration Form for two (2) DCP mill process burners (EP-35) (Revised by permit dated December 5, 2000)
April 1974	City of Saint Louis Source Registration Form for milling and drying of product (EP-35)
March 19, 1975	City of Saint Louis Source Registration Form for new dust collection system for bag blow off station

Table 1: Permit History

<i>Permit Date or Number</i>	<i>Description</i>
November 15, 1976	City of Saint Louis Source Registration Form for installation of new dust collector for process conveyors and rededication of old dust collector for ventilation of equipment (EP-42)
November 15, 1976	City of Saint Louis Source Registration Form for a vacuum cleaning system for Monsanto's warehouse, packaging and pyran production area (EP-55)
February 28, 1978	City of Saint Louis Source Registration Form for calcium phosphate milling, classifying, blending and packaging operations (EP-31)
April 5, 1979	City of Saint Louis Source Registration Form for New HCl storage tank with vent for breathing – both normal breathing and displacement during filling (EP-57)
June 12, 1979	City of Saint Louis Source Registration Form for alumina trihydrate storage silo ventilation (EP-45)
May 27, 1982	City of Saint Louis Source Registration Form for stack for tri-calcium phosphate – third floor hold tank (EP-38)
May 27, 1982	City of Saint Louis Source Registration Form for a stack for tetra sodium pyrophosphate (TSP) tank (EP-38)
June 21, 1983	City of Saint Louis Source Registration Form for stack for unmilled tri calcium phosphate bag filling. Venting from the bag filler into the surge bin and venting from the surge bin to the dust collector (EP-44)
February 22, 1984	Saint Louis Department of Public Safety Permit for the Installation of a Fuel or Refuse Burning Device for Clayton 3,876,000 BTU /hr input steam boiler – natural gas fuel
March 8, 1984	City of Saint Louis Source Registration Form for nuisance dust collected at bag receiving conveyor for automatic bag filling operation (EP-54)
July 31, 1984	City of Saint Louis Source Registration Form for stack for DCP bulk truck and railcar loading. Venting from railcars/trucks and totes to the dust collector (EP-56)
July 1984	City of Saint Louis Source Registration Form for ventilation of monocalcium phosphate bulk loading, classifying and storage operations
September 5, 1984	Saint Louis Department of Public Safety Permit for the Installation of a Fuel or Refuse Burning Device for Vogt 57.8 MMBTU/hour boiler – natural gas or fuel oil
March 29, 1985	City of Saint Louis Source Registration Form for stack for dust collection from the STP granular area (new)
March 29, 1985	City of Saint Louis Source Registration Form for vacuum blower exhaust (EP-69)
January 21, 1986	City of Saint Louis Source Registration Form for clean air to atmosphere vent on filter bag dump station
January 21, 1986	City of Saint Louis Source Registration Form for a discharge from a filter bag dump station
February 4, 1986	City of Saint Louis Source Registration Form for acid/base/water reaction – with solids additions – tri magnesium phosphate wet mix stack
February 4, 1986	City of Saint Louis Source Registration Form for acid/base/water reaction – with solids additions – TCP wet mix stack

Table 1: Permit History

<i>Permit Date or Number</i>	<i>Description</i>
April 16, 1986	City of Saint Louis Source Registration Form for vapor space sweep (from #2 Mix Tank) during production of di/tri-potassium phosphate (EP-25)
June 6, 1986	City of Saint Louis Source Registration Form for ventilation through fan to atmosphere of the CaO + H ₂ O reactor (EP-27)
October 21, 1986	City of Saint Louis Source Registration Form for ventilation through dust collector of process equipment plus mill
February 20, 1987	City of Saint Louis Source Registration Form for ventilation through TCP dust collector and TCP process equipment (EP-43)
February 23, 1988	City of Saint Louis Source Registration Form for discharge from a pneumatic lime transfer system (EP-47)
February 23, 1988	City of Saint Louis Source Registration Form for discharge from Rotoclone wet type dust collector on reactor (EP-48)
February 23, 1988	City of Saint Louis Source Registration Form for discharge from pulse type dust collector on south mixer (EP-49)
November 21, 1989	City of Saint Louis Source Registration Form for lime silos, crusher and elevator (EP-26)
November 21, 1989	City of Saint Louis Source Registration Form for discharge from MCP#2 spray tower and aging bins (EP-29)
July 13, 1990	City of Saint Louis Source Registration Form for discharge from cyclone on Dept. 8 dryer exhaust duct (EP-24)
January 14, 1992	City of Saint Louis Source Registration Form for ventilation through dust collector of process equipment, mill and cut-in station
November 22, 1993	Dicalcium phosphate packaging line (EP-53)
December 2, 1993	Phosphorous storage tank (Replaced by permit dated December 12, 1997)
April 18, 1994	Request for a temporary dust collection system for STP granular bulk loading (temporary authorization expired September 1, 1994)
April 20, 1994	Phosphorous storage tank (amends permit dated December 2, 1993) (Replaced by permit dated December 12, 1997)
94-03-006	STP granular bulk loading and dust collection system (EP-21) (Replaced by Permit #07-12-025)
94-10-100	DCP semi-bulk filler bin system
94-10-101	DCP bag packing bin system
94-10-102	MCP bag packing bin (Modified by Permit #07-10-021)
94-10-103	Semi-bulk packing bin
94-10-104	Department 20 packing bin system (EP-65)
94-10-108	DCP recovery and premix dust collection system (EP-32)
94-10-109	Bin vent filter for STP dense phase system (Revised by Permit #99-02-014)
94-10-110	STP #0038 – receiver bin
94-10-111	STP #0210 – receiver bin
94-10-112	STP Packing (Replaced by Permit #07-04-006)
94-10-113	STP bin vent – West
94-10-117	Calcium phosphate dust collection system (EP-54)
95-07-084	SHMP dust collector

Table 1: Permit History

<i>Permit Date or Number</i>	<i>Description</i>
December 12, 1997	Amended Permit – Phosphorous storage tank (replaces permits dated December 2, 1993 and April 20, 1994) (Permit nullified September 18, 2003)
99-02-008	MCP process mill
99-02-014 (Permit Matter)	Revision of Permit No. 94-10-109
December 5, 2000	Addition of magnesium oxide to milling and drying operations (EP-35 and EP-73) (Revision to Dec. 17, 1973 source registration)
00-07-038	Expansion to sodium aluminum phosphate process (Replaced by Permit #01-06-018)
01-06-018	Expansion to sodium aluminum phosphate process and addition of new boiler #1 (replaces Permit #00-07-038) (Replaced by Permit #01-06-018 PM)
01-06-018 PM	Expansion to sodium aluminum phosphate process and addition of new boiler #1 (replaces Permit #01-06-018)
03-01-004	Modification of lime department
OP2004-005	Title V Operating Permit
04-11-022	Soda ash & STPP rework transfer system (Permit withdrawn June 15, 2006)
07-04-006	Addition of two new bin vent dust collectors to the sodium tripolyphosphate packaging transfer system (replaces permit 94-10-112)
07-10-021	Modification of Permit 94-10-102 (MCP Packing Bin EP-61)
07-12-025	Sodium Tripolyphosphate Bulk Loading and Transfer System Modification (replaces permit 94-03-006)
09-01-003	Tricalcium Phosphate Grinder and Air Classifier
09-10-021 NPR	No Permit Required Determination: EP-35 DCP Mill Dust Collector Replacement
10-08-018	Potassium Phosphate Salts Production Unit in Building #19

PROJECT DESCRIPTION

The permittee abandoned the *North Lime Silo*, EP-26, in place in 2003 (please refer to Attachment B for the location of the modification within the site). The permittee proposes to reactivate EP-26 using a new dust collector, lime truck blow-off, and silo discharge equipment (please refer Attachment C for an elevation view of the equipment). The permittee's use of EP-26, in addition to the continued use of the *South Lime Silo*, EP-98, will allow them to separate and store different lime grades (i.e. the more costly, low aluminum content lime will be stored and used separately from the regular lime). The permittee will not use more lime in the facility as a result of this change.

EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies used in this analysis were obtained from the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

The following table provides an emissions summary for this project. Existing potential emissions were taken from the 2012 annual MoEIS reporting. Existing actual emissions were also taken from the installation's 2012 EIQ. Potential emissions of the application represent the potential of the modified equipment, assuming continuous operation (8760 hours per year). Please refer to Attachment D for several selected pages from the application that contain pertinent information regarding emissions calculations. Particulate matter is the only regulated air pollutant expected from this source.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions ¹ (2012 EIQ)	Potential Emissions of the Application ²	New Installation Conditioned Potential
PM	25.0	>100	³	0.15	>100
PM ₁₀	15.0	>100	11.5	0.09	>100
PM _{2.5}	10.0	12.9	1.1	0.09 ⁴	12.9
SO _x	40.0	>100	0.1	--	>100
NO _x	40.0	>100	6.8	--	>100
VOC	40.0	33.5	1.1	--	33.5
CO	100.0	>100	23.2	--	>100
GHG (CO ₂ e)	75,000 / 100,000	>100,000	⁵	--	>100,000
GHG (mass)	0.0 / 100.0 / 250.0	>100	⁶	--	>100
HAPs	10.0/25.0	--	0.0	--	--

N/A = Not Applicable; N/D = Not Determined; "--" Below Detectable;

Attachment A contains an analysis of the only relevant regulation applicable to this application. This permit contains special conditions that require the operation, maintenance, monitoring and record keeping of the proposed baghouse for the subject source (EP-26).

¹ Reported values rounded to one decimal place.

² These emissions are after the control device, which is required by special conditions.

³ Particulate matter (PM) is not an annually reported pollutant.

⁴ All of the particulate matter emissions are considered to be PM_{2.5}, due to the efficiency of the baghouse on these types of sources.

⁵ GHG (CO₂e) is not an annually reported pollutant.

⁶ GHG (mass) is not an annually reported pollutant.

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 particulate matter are below the de minimis levels.

APPLICABLE REQUIREMENTS

ICL Performance Products LP 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 the installation, please consult the operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
- *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 (exemption provided through special conditions, see Attachment A)

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.

Raymond, Randy
New Source Review Unit

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

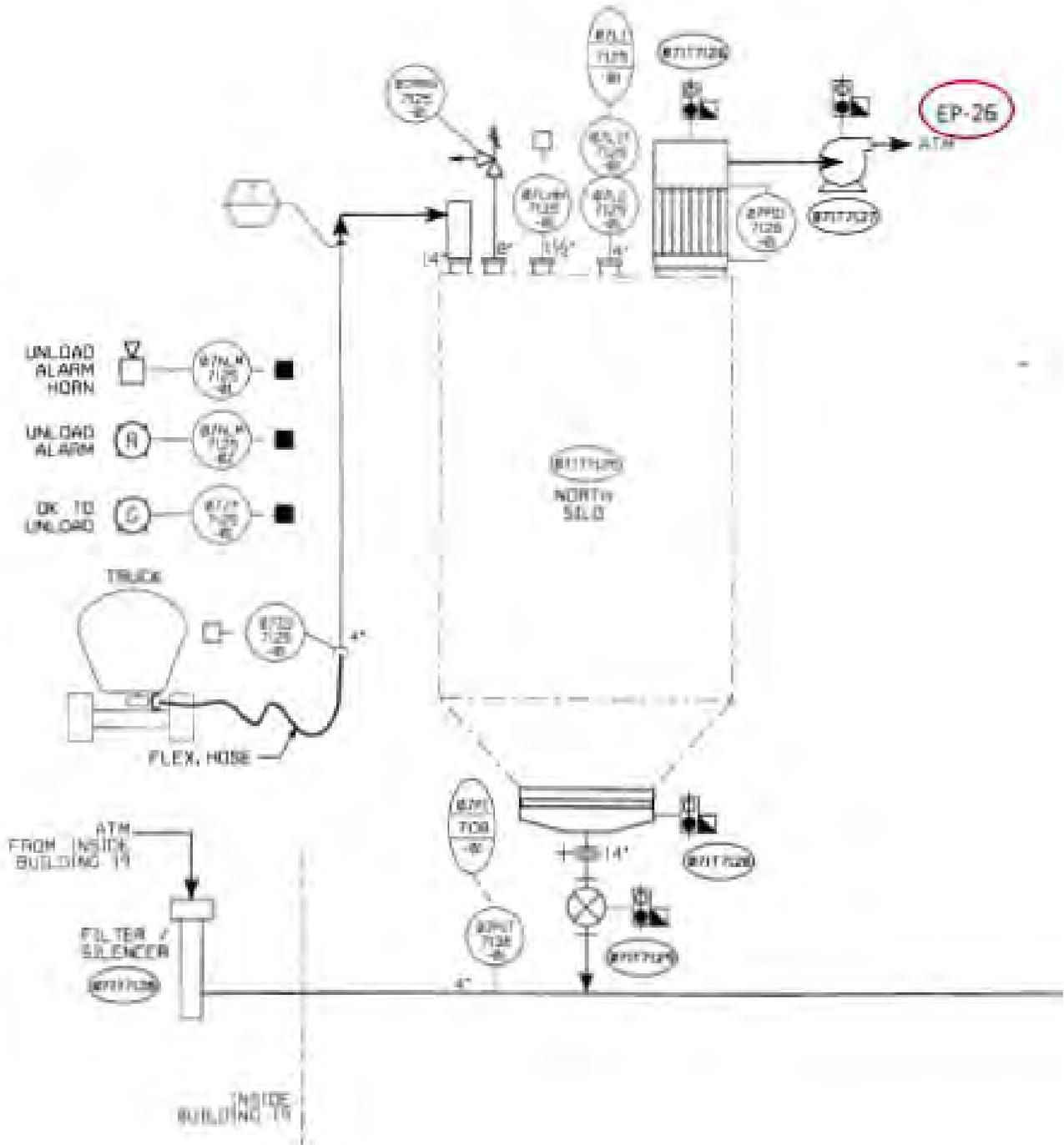
- The Application for Authority to Construct form, dated May 24, 2013, received May 30, 2013, designating ICL Performance Products LP as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

Attachment A - Compliance Worksheet

EU	Description	Process Weight Rate (ton/hr)	PM Emission Factor (lb/ton)	Control Device Efficiency (%)	Uncontrolled Emission Rate (lb/hr)	Controlled Emission Rate (lb/hr)	Allowable Emission Rate (lb/hr)	PTE is less than 0.5 lbs per hour? (with control / without control)	Is unit in compliance without controls?	Is the Control Efficiency Greater Than 90%?	Is unit in compliance with controls?	PTE as percentage of Allowable
EP-26	North Lime Silo	22.50	1.50	99.90	33.75	0.034	33.02	YES/w	NO	YES	YES	0%

The columns 9, 10 and 11 represent exemptions from *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400. This permit contains conditions requiring the control device used in these calculations. Therefore, this sources is exempt from 10 CSR 10-6.400, provided the control device is required by a federally enforceable permit condition.

Attachment C – Equipment Elevation Diagram



Attachment D – Selected Application Pages

Emission Information for Air Construction Permit Application

Form 2.0 Emission Point Information (duplicate this form as needed.)

INSTALLATION NAME (A.) ICL Performance Products LP		FIPS COUNTY NO. (B.) 510	PLANT NO. (C.) 0070				
POINT IDENTIFICATION							
POINT NO. (D.) EP-26	POINT DESCRIPTION (E.) North Lime Silo						
SOURCE CLASSIFICATION CODE (SCC) (F.) 30199999		MAKE (G.)	MODEL (H.)	YEAR (I.)			
STACK/VENT PARAMETERS							
STACK NO. (J.) EP-26	HEIGHT (FT) (K.) 53	DIAMETER (FT) (L.) 1					
TEMPERATURE (F) (M.) Ambient	VELOCITY (FT/MIN) (N.) 4230	FLOW RATE (STANDARD CUBIC FT/MIN) (O.) 1280					
OPERATING RATE/SCHEDULE							
EXPECTED ANNUAL THROUGHPUT (P.) 12,500		UNITS (Q.) TONS	MAXIMUM HOURLY DESIGN RATE (R.) 22.5		UNITS/HR (S.) TONS/HR		
HOURS/DAY (T.) 24		DAYS/WEEK 7		WEEKS/YEAR 52			
AIR POLLUTION CONTROLS							
DEVICE NO. (U.)	CONTROL DEVICE DESCRIPTION (V.)	Control Device Destruction/Removal Efficiency % (w.)					
		PM ₁₀	SO _x	NO _x	VOC	CO	HAPs
CD-74	DUST COLLECTOR	99.9					
DEVICE NO.	DESCRIPTION OF COLLECTION/SUPPRESSION SYSTEM (X.)						
CD-74	Hard piped and sealed						

GRIFFIN FILTERS

ICL Performance
Proposal # 132064-B

COLLECTION EFFICIENCY

Griffin Filters guarantees that the fabric filter dust collectors, as quoted in Griffin Filters' proposals, will collect, at minimum, 99.9%+ down to 0.5 micron based on the weight of the suspended solids contained in the gas entering the dust collector. An outlet loading of .002 grains per actual cubic foot or less shall constitute fulfillment of the guarantee and current requirements. This guarantee is based on the parameters as outlined in the proposal. The guarantee is invalid if the equipment is not installed, properly precoated, operated, or maintained within the guidelines of Griffin's installation, operation and maintenance manual.

Testing shall be done using EPA test method 5.

If test results indicate the dust collectors are out of compliance, Griffin personnel shall address the problem in the following manner:

- 1) If bag material or workmanship is found to be the cause of the non-compliance, Griffin will replace the bags in question at no charge, or make compensation to the end user in the amount of our cost of the bags to be replaced on a one-for-one basis.

- 2) If the failure is a result of faulty installation, faulty operation, or incorrect maintenance, or the system failure is a result of continuous operation in an upset condition, or the operating conditions have been altered from those defined in the initial specification, then all guaranties and warranties are void.

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	SIC	Standard Industrial Classification
GHG	Greenhouse Gas	SIP	State Implementation Plan
gpm	gallons per minute	SMAL	Screening Model Action Levels
gr	grains	SO_x	sulfur oxides
GWP	Global Warming Potential	SO₂	sulfur dioxide
HAP	Hazardous Air Pollutant	tph	tons per hour
hr	hour	tpy	tons per year
hp	horsepower	VMT	vehicle miles traveled
lb	pound	VOC	Volatile Organic Compound
lbs/hr	pounds per hour		
MACT	Maximum Achievable Control Technology		
µg/m³	micrograms per cubic meter		

Ms. Catherine Boehm
ESH Leader
ICL Performance Products LP
8201 Idaho Avenue
St. Louis, MO 63111

RE: New Source Review Permit - Project Number: 2013-05-070

Dear Ms. Boehm:

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, 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, 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 have any questions regarding this permit, please do not hesitate to contact Randall E. Raymond, 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:rrl

Enclosures

St. Louis Regional Office
PAMS File: 2013-05-070

Permit Number: