

**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

BUNGE NORTH AMERICA, INC.,	)	
	)	
Petitioner,	)	
	)	
v.	)	
	)	PCB No. 2023-089
ILLINOIS ENVIRONMENTAL PROTECTION	)	(Permit Appeal – Air)
AGENCY	)	
	)	
Respondent.	)	

**NOTICE OF FILING**

To: See Attached Service List (Via Electronic Filing)

PLEASE TAKE NOTICE that the undersigned filed today with the Office of the Clerk of the Illinois Pollution Control Board by electronic filing the following CERTIFICATE OF RECORD ON APPEAL and RECORD, copies of which are attached hereto and hereby served upon you.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION  
AGENCY

By: /s/Christina L. Nannini  
Christina L Nannini, #6327367  
Natalie Long, # 6309569  
Assistant Attorneys General  
Environmental Bureau  
500 South Second Street  
Springfield, Illinois 62706  
(217) 782-9031  
[christina.nannini@ilag.gov](mailto:christina.nannini@ilag.gov)  
[natalie.long@ilag.gov](mailto:natalie.long@ilag.gov)

Dated: February 24, 2023

**SERVICE LIST**

Thor W. Ketzback  
Nora J. Faris  
Bryan Cave Leighton Paisner  
161 N. Clark Street, Suite 4300  
Chicago, IL 60601  
Thor.Ketzback@bclplaw.com  
Nora.Faris@bclplaw.com

Carol Webb  
Hearing Officer  
Illinois Pollution Control Board  
1021 North Grand Avenue East  
P.O. Box 19274  
Springfield, IL 62794-9274  
carol.webb@illinois.gov

**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that on February 24, 2023, she caused to be served by electronic mail, a true and correct copy of the following instruments entitled Notice of Filing, Certificate Record on Appeal and Record to:

Thor W. Ketzback  
Nora J. Faris  
Bryan Cave Leighton Paisner  
161 N. Clark Street, Suite 4300  
Chicago, IL 60601  
Thor.Ketzback@bclplaw.com  
Nora.Faris@bclplaw.com

Carol Webb  
Hearing Officer  
Illinois Pollution Control Board  
1021 North Grand Avenue East  
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Springfield, IL 62794-9274  
carol.webb@illinois.gov

/s/ Katie J. Johnson  
Katie J. Johnson  
Environmental Bureau

Under penalties as provided by law pursuant to Section 1-109 of the Code of Civil Procedure, the undersigned certifies that the statements set forth in this Certificate of Service are true and correct, except as to matters therein stated to be on information and belief and as to such matters the undersigned certifies as aforesaid that she verily believes the same to be true.

/s/ Katie J. Johnson  
Katie J. Johnson  
Environmental Bureau

**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

BUNGE NORTH AMERICA, INC., )  
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Petitioner, )  
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v. )  
 ) PCB No. 2023-089  
ILLINOIS ENVIRONMENTAL PROTECTION ) (Permit Appeal – Air)  
AGENCY )  
 )  
Respondent. )

**CERTIFICATE OF RECORD ON APPEAL**

Respondent, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (“Illinois EPA”), in accordance with the procedural rules of the Illinois Pollution Control Board (“Board”) as set forth in 35 Ill. Adm. Code 105.212 and 105.116, files as its Record in this cause the Illinois EPA’s record of Construction Permit 22110001 issued to Bunge North America, INC., on December 21, 2022, which is attached and consists of the following documents:

- R1 – R4: Letter submitting Construction Permit Application to replace soybean cleaning and drying equipment and requesting an expedited review dated October 24, 2022
- R5 – R37: Initial Application: Diagram of Soybean Cleaning/Drying, PTE Emission Calculations, Form 197 – Fee Determination for Construction Permit Application, Form 199 – Construction Permit Application for a Proposed Project at a CAAPP Source, Form 220 - Past Actual to PTE Emission Calculations, Form 260C - Process Emission Unit Data and Information – CD-1 Bean Cleaning, Form 220 - Supplemental Form Air Pollution Control Equipment Filter and, Process Emission Unit Data and Information – CD-3A, 3B, 3C, 4A, 4B, 4C Bean Drying
- R38: Completeness Review Worksheet for Construction Permit Fees
- R39 – R40: Email from Marlisha Walton to Jason Schnepf dated November 3, 2022 with Attachment - Request for Expedited Review
- R41 – R42: Email from Daniel Rowell to Marlisha Walton dated November 4, 2022 (2 copies)
- R43: Email from Daniel Rowell to Robert Smet dated November 4, 2022

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- R44: Email from Robert Smet to Daniel Rowell dated November 4, 2022
- R45 – R49: Email from Robert Smet to Daniel Rowell dated November 4, 2022 with Attachment – Notice of Incompleteness Draft
- R50 – R51: Forwarded email from Marlisha Walton to Daniel Rowell dated November 9, 2022
- R52 – R53: Email from Daniel Rowell to Cecilia Li dated November 9, 2022
- R54 – R55: Email from Cecilia Li to Daniel Rowell dated November 9, 2022
- R56 – R61: Email from Daniel Rowell to James Burris dated November 10, 2022 with Attachment- Comments and Questions on the Application for Bunge dated November 10, 2022
- R62 – R63: Email from James Burris to Daniel Rowell dated November 11, 2022
- R64: Email calendar invite from Jason Schnepf to Daniel Rowell dated November 14, 2022
- R65: Blank page
- R66 – R67: Webex meeting invite from Daniel Rowell to James Burris, Michelle Publitz, and Jason Schnepf for November 16, 2022
- R68 – R73: Email from Sabrina Bailey to Daniel Rowell dated November 17, 2022 with Attachment – EJ Indicators
- R74: Email from EJ Outreach database to Daniel Rowell, Cassandra Metz, Brad Frost, Chris Pressnall, Alane Herr, James Mensah dated November 18, 2022
- R75 - R76: Email from Jason Schnepf to Daniel Rowell dated November 19, 2022 with Attachment – Request for Expedited Review
- R77 – R79: Email from Daniel Rowell to Jason Schnepf dated November 22, 2022 with Attachments - EJ clearance memo and Request for Expedited Review
- R80 - R84: Email from Jason Schnepf to Julie Armitage dated November 23, 2022 with Attachments - EJ clearance memo and EJ Indicators
- R85: Email from EJ Outreach database to Cassandra Metz, Brad Frost, Chris Pressnall, Alane Herr, James Mensah, and Daniel Rowell dated November 23, 2022
- R86 – R88: Email from James Mensah to Daniel Rowell dated November 23, 2022 with Attachment - Letter from Chris Pressnall to the EJ Distribution List dated November 23, 2022
- R89: Email from Daniel Rowell to Jason Schnepf dated November 23, 2022

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- R90: Email from Jason Schnepf to Julie Armitage dated November 23, 2022
- R91: Forwarded email from to Bill Marr – to Jason Schnepf and Bob Bernoteit dated December 1, 2022
- R92 – R93: Email from Jason Schnepf to Marlisha Walton dated December 1, 2022 with Attachment - Request for Expedited Review
- R94: Email from Daniel Rowell to Marlisha Walton dated December 1, 2022
- R95 – R97: Email from Marlisha Walton to Amy Adelman dated December 1, 2022
- R98: Blank page
- R99 – R100: Email from Marlisha Walton to Amy Adelman dated December 1, 2022
- R101 - R112: Email from Amy Adelman to Jason Schnepf dated December 2, 2022 with Attachments - Routing and Approval Slip, Memo on expedited review from Bill Marr to Julie Armitage dated December 9, 2022, and Agreement for Expedited Review of Permit Application
- R113 – R122: Email from Jason Schnepf to Amy Adelman dated December 2, 2022 with Attachments - Agreement for Expedited Review of Permit Application and Routing and Approval Slip
- R123 – R134: Email from Jason Schnepf to Amy Adelman dated December 2, 2022 with Attachments - Memo on expedited review from Bill Marr to Julie Armitage dated December 9, 2022, Agreement for Expedited Review of Permit Application, and Routing and Approval Slip
- R135 - R142: Email from Amy Adelman to James Burris, Bill Marr, Jason Schnepf, and Daniel Rowell dated December 2, 2022 with Attachment - Agreement for Expedited Review of Permit Application
- R143 – R144: Email from Daniel Rowell to Amy Adelman dated December 2, 2022
- R145 – R146: Email from Amy Adelman to Daniel Rowell dated December 2, 2022
- R147 – R149: Email from Daniel Rowell to Amy Adelman and Marlisha Walton dated December 2, 2022
- R150: Blank page
- R151 – R152: Email from Amy Adelman to James Burris, Bill Marr, Jason Schnepf, Daniel Rowell dated December 2, 2022
- R153 – R155: Email from Amy Adelman to Daniel Rowell and Marlisha Walton dated December 2, 2022
- R156: Blank page

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- R157 – R159: Email from Marlisha Walton to Daniel Rowell and Amy Adelman dated December 5, 2022
- R160: Blank page
- R161: Email from James Burris to Daniel Rowell dated December 6, 2022
- R162 – R172: Construction Permit Application Addendum dated December 6, 2022
- R173: Email from Daniel Rowell to James Burris dated December 7, 2022
- R174 – R177: Email from Amy Adelman to James Burris, Bill Marr, Jason Schnepf, and Daniel Rowell dated December 8, 2022
- R178: Routing and Approval Slip
- R179: Construction Permit Fee
- R180: Memo from Bill Marr to Julie Armitage regarding the expedited permit application review dated December 9, 2022
- R186: Fully Executed Agreement for Expedited Review of Permit Application
- R187 – R199: Email from Daniel Rowell to James Burris dated December 13, 2022 with Attachment - Draft Construction Permit dated December 13, 2022
- R200 – R203: Email from James Burris to Daniel Rowell dated December 16, 2022
- R204 – R208: Email from Daniel Rowell to James Burris dated December 16, 2022
- R209 – R225: Email from Daniel Rowell to James Burris dated December 20, 2022 with Attachment - Draft Construction Permit dated December 20, 2022
- R226 – R231: Email from James Burris to Daniel Rowell dated December 21, 2022
- R232: Email from EJ Outreach database to Cassandra Metz, Brad Frost, Chris Pressnall, Alane Herr, James Mensah, and Daniel Rowell dated December 21, 2022
- R233 – R238: Email from Daniel Rowell to James Burris dated December 21, 2022
- R239 – R245: Email from James Burris to Daniel Rowell dated December 21, 2022
- R246: Email from EJ Outreach database to Cassandra Metz, Bard Frost, Chris Pressnall, Alane Herr, James Mensah and Daniel Rowell dated December 21, 2022
- R247 – R248: Email from Chris Pressnall to Daniel Rowell, Cassandra Metz, Brad Frost, Alane Herr, and James Mensah dated December 21, 2022
- R249: Permit Review - Traveler Sheet

Electronic Filing: Received, Clerk's Office 02/24/2023

- R250 – R262: Email from Daniel Rowell to Marlisha Walton, Trent Nation, Marcus Rothenberg, Amy Adelman, and Jason Schnepf dated December 21, 2022 with Attachment – Draft Construction Permit dated December 21, 2022
- R263: Email from Jason Schnepf to Daniel Rowell dated December 21, 2022
- R264 – R276: Email from Trent Nation to Daniel Rowell, Marlisha Walton, Marcus Rothenberg, and Amy Adelman dated December 21, 2022 with Attachment - Construction Permit issued December 21, 2022
- R277-R288: Final Permit
- R289 – R304: Email from Amy Adelman to James Burris, Bill Marr, Jason Schnepf, and Daniel Rowell dated December 21, 2022 with Attachment - Construction Permit issued December 21, 2022
- R305 – R306: Calculation Sheet dated December 21, 2022
- R307 – R385: Compliance Monitoring and Control of Fabric Filters – Particulate Monitoring and Control Solutions
- R386 – R425: ACM Capture System, Baghouse Leak Detection, & Control Device Operation and Maintenance (O&M), Preventive Maintenance Plan (PMP), Scrap Certification & Selection Plan Startup Shutdown and Malfunction Abatement (SSM), Compliance Assurance Monitoring (CAM), Mold Light-off Plans
- R426 – R433: Auburn Systems – Bag Leak Detection Blog
- R434 – R443: USEPA letter to Michigan Department of Environment, Great Lakes and Energy

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I, Daniel Rowell, of the Illinois EPA, hereby certify that the documents of the Record on Appeal filed in the above referenced matter and summarized in the above Index are complete to the best of my knowledge, information, and belief.

BY: /s/ Daniel Rowell  
Daniel Rowell  
Environmental Protection Engineer, IV  
Illinois Environmental Protection Agency

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION  
AGENCY

BY: /s/ Christina L. Nannini  
CHRISTINA L. NANNINI, #6327367  
NATALIE LONG, #6309569  
Assistant Attorneys General  
Environmental Bureau  
Illinois Attorney General's Office  
500 South 2<sup>nd</sup> Street  
Springfield, Illinois 62701  
Ph: (217) 782-9031  
Fax: (217) 524-7740  
christina.nannini@ilag.gov  
natalie.long@ilag.gov

Dated: February 24, 2023



Bunge North America, Inc.  
203 34<sup>th</sup> Street  
Cairo, IL 62914

October 24, 2022

Division of Air Pollution Control – Permit Section  
Illinois Environmental Protection Agency – Bureau of Air  
1021 North Grand Avenue East  
P.O. Box 19506  
Springfield, IL 62794-9506

RECEIVED  
STATE OF ILLINOIS  
NOV 03 2022  
Environmental Protection Agency  
BUREAU OF AIR

RE: Bunge North America, Inc. – Cairo, Illinois  
Source ID#: 003005AAI  
Construction Permit Application

Dear Sir or Madam:

Enclosed is the original and two copies of a complete construction permit application for a project at the above referenced Bunge facility to replace in kind soybean cleaning equipment and soybean drying equipment which results in a zero net increase in potential annual emissions.

Bunge is requesting an **Expedited Review** of the enclosed permit application in accordance with Section 39.14 of the Illinois Environmental Protection Act.

A check in the amount of \$40,000 made payable to Illinois EPA, Division of Air Pollution Control – Permit Section is enclosed with this letter. This fee represents the \$10,000 permit application fee times four required for an expedited review.

Should you have any questions regarding the enclosed application, please contact James Burris at 314-292-2937 or james.burris@bunge.com.

Sincerely,

Christopher Cunningham  
Plant Manager

Enclosure: Construction Permit Application  
Fee Check for \$40,000  
(payable to Illinois EPA, Division of Air Pollution Control – Permit Section)



**Bunge North America, Inc. – Cairo, IL**  
**Source ID No. 003005AAI**  
**Bean Cleaning/Drying Like Kind Replacement**  
**Construction Permit Application**  
**October 24, 2022**

### **Application Forms**

The following application forms are included with this application:

- Form 197-FEE; Fee Determination
- Form 199-CAAPP; Construction Permit Application for a Proposed Project at a CAAAPP Source
- Form 220-CAAPP for CD-1; Emission Unit Data and Information
- Form 260C-CAAPP for CD-1; Control Equipment Filter
- Form 220-CAAPP for CD-3, 4, 5, 6, 7 & 8; Emission Unit Data and Information

### **Project Description**

The Bunge – Cairo, IL facility is proposing a Bean Cleaning and Drying like kind replacement project to swap out old cleaning and drying equipment and replace it with new equipment with zero increase in annual potential emissions as presented in Table 1 below. Detailed calculations are presented at the end of this summary.

The equipment used to clean and dry the beans has reached the end of its use life and needs to be replaced. This project involves replacing the bean cleaning and drying equipment with like kind equipment.

Table 1. Summary of Project Annual Potential to Emit

Emission Unit ID	Emission Unit Description	PM (tpy)	PM10 (tpy)	PM2.5 (tpy)	SO <sub>2</sub> (tpy)	NO <sub>x</sub> (tpy)	CO (tpy)	VOC (tpy)	HAP (tpy)
CD-1 old	Bean Cleaning Old	-60.04	-15.21	-2.56	-	-	-	-	-
CD-1 new	Bean Cleaning New	60.04	15.21	2.56	-	-	-	-	-
CD-3 & 4 old <sup>1</sup>	Bean Dryers Old	-63.40	-31.70	-5.39	-0.10	-15.92	-13.39	-0.88	-0.29
CD-3A, 3B, 3C, 4A, 4B & 4C new <sup>1</sup>	Bean Dryers New	63.40	31.70	5.39	0.10	15.92	13.39	0.88	0.29
	<b>Total Increase or Decrease</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

<sup>1</sup> Two higher capacity dryers are being replaced with six lower capacity dryers.

### **Process Description**

The facility receives beans by truck or rail which are transferred to wet bean storage. From wet storage, beans are cleaned and dried prior to being processed in the soybean extraction plant. A process flow diagram is presented at the end of this summary.

### **Regulation Applicability**

The following regulations apply to the emission unit and equipment associated with this project.

#### **40 CFR 60, subpart DD, Standards of Performance for Grain Elevators**

The Cairo facility is a soybean oil extraction plant with a permanent grain storage capacity greater than one million bushels, therefore, 40 CFR 60, subpart DD applies to the facility.



The Bean Dyer Emission Units (CD-3A, 3B, 3C, 4A, 4B, 4C) meet the definition of an *affected facility* as defined by the subpart as they are column dryers. Pursuant to 60.302(a), the dryers are required to either 1) prohibit the discharge gases which exhibit greater than zero percent opacity, or 2) be equipped with column plate perforations no greater than 2.4 mm diameter (0.094 inch). The dryers will comply with this requirement by having plate perforations of no more than 2.4 mm (0.094 inch).

The Bean Cleaner Emission Unit (CD-1) is not an *affected facility* as defined by the subpart and there not subject to the subpart.

35 IAC 212.461, Grain Handling and Drying in General

This regulation applies to the Bean Cleaning Emission unit and associated baghouse control device (CD-1) and the Bean Dyer Emission Units (CD-3A, 3B, 3C, 4A, 4B, 4C) as follows:

- **Housekeeping Practices**  
All grain-handling and grain-drying operations, regardless of size, must implement and use the following housekeeping practices:
  - 1) Air pollution control devices shall be checked daily and cleaned as necessary to insure proper operation.
  - 2) Cleaning and Maintenance
    - A) Floors shall be kept swept and cleaned from boot pit to cupola floor. Roof or bin decks and other exposed flat surfaces shall be kept clean of grain and dust that would tend to rot or become airborne.
    - B) Cleaning shall be handled in such a manner as not to permit dust to escape to the atmosphere.
    - C) The yard and surrounding open area, including but not limited to ditches and curbs, shall be cleaned to prevent the accumulation of rotting grain.

Housekeeping checklists shall be completed and maintained on the premises for inspection by Agency personnel.

35 IAC 212.462, Grain Handling Operations

This regulation applies to the Bean Cleaning Emission unit and associated baghouse control device (CD-1) as indicated below. For the purposes of this regulation, the Cairo facility is located outside of a major population area.

- **Cleaning and Separation Operations**
  - 1) Particulate matter generated during cleaning and separating operations shall be captured to the extent necessary to prevent visible particulate matter emissions directly into the atmosphere.
  - 2) For grain-handling sources having a grain through-put of not more than 2 million bushels per year or located outside a major population area, air contaminants collected from cleaning and separating operations shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 90 percent by weight prior to release into the atmosphere.



- Internal Transfer Area
  - 1) Internal transferring area shall be enclosed to the extent necessary to prohibit visible particulate matter emissions directly into the atmosphere.
  - 2) Air contaminants collected from internal transfer operations for grain-handling sources having a grain through-put of not more than 2 million bushels per year or located outside a major population area shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 90 percent by weight prior to release into the atmosphere.

35 IAC 212.463, Grain Drying Operations

This regulation applies to the Bean Dyer Emission Units (CD-3A, 3B, 3C, 4A, 4B, 4C) as follows:

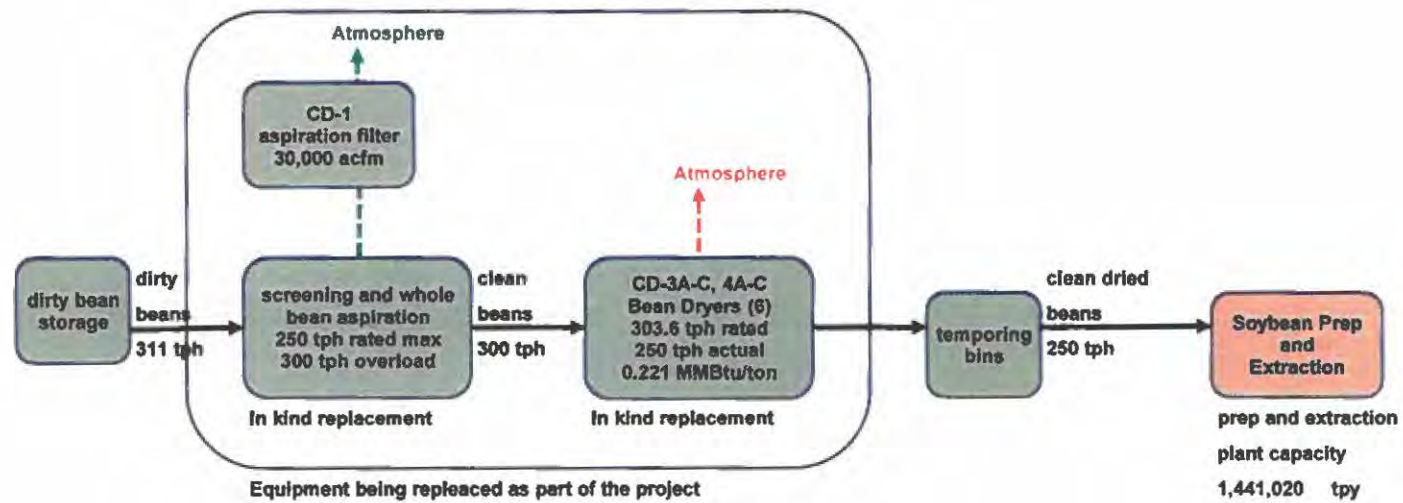
- Column Dryers

The largest effective circular diameter of transverse perforations in the external sheeting of a column dryer shall not exceed 0.094 inch, and the grain inlet and outlet shall be enclosed.

**Bunge North America, Inc.**  
**Cairo, IL - Cleaner/Dryer Project**

- 1) ---> Dashed lines indicate pneumatic transfer of materials. Un-dashed lines are mechanical or gravity transfer.
- 2) Green emissions to Atmosphere are controlled point sources.
- 3) Orange emissions to Atmosphere are fugitive sources or uncontrolled point sources.

**Soybean Cleaning/Drying**



**Bunge North America, Inc.**  
**Cairo, IL**  
**Facility ID 003005AAI**

**PTE Emission Calculations**

Existing Plant Capacity (bu/day)	131,600	
Existing Plant Capacity (ton/day)	3,948	
Existing Plant Capacity (ton/yr)	1,601,133	dirty beans (10% fm)
Existing Plant Capacity (ton/yr)	1,441,020	cleaned beans
Hours of Operation (hours/yr)	8,760	plant/extraction
Days of Operation (days)	365	

**Fuel Use/Combustion**

Boilers Natural Gas (MMBtu/ton)	0.221	highest expected MMBtu/ton beans
Boilers Natural Gas (MMCF/yr)	318.5	assumes heat content of natural gas is 1000 Btu/cf

**Bean Cleaning - old**

**CD-1 old**

Design Cleaning Rate	432 tons/hr	
Annual Average Cleaning Rate	164.5 tons/hr	bottlenecked rate
Capture Efficiency	100 %	all enclosed and aspirated
Operation	8,760 hours/year	
Annual Throughput	1,601,133 ton/year	beans received before cleaning

**Emission Factors**

		<u>Units</u>	<u>Basis</u>
PM	0.075	lb/ton	AP-42, Table 9.9.1-1
PM10	0.0190	lb/ton	AP-42, Table 9.9.1-1
PM2.5	0.0032	lb/ton	AP-42, Table 9.9.1-1

	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)
<b>Uncontrolled Potential</b>	32.40	8.21	1.38	60.0	15.2	2.6

**Bean Cleaning - new**

**CD-1 new**

Design Rate	250 tons/hr	
Annual Average Rate	164.5 tons/hr	bottlenecked rate
Capture Efficiency	100 %	all enclosed and aspirated
Operation	8,760 hours/year	
Annual Throughput	1,601,133 ton/year	beans received before cleaning
PM/PM10 Grain Loading	0.002 grain/dscf	expected baghouse grainloading
PM2.5 Grain Loading	0.001 grain/dscf	PM2.5 is 50% PM10 conservatively based on stack test data
Exhaust Fan Flow Rate	26,000 acfm	
Exhaust Fan Flow Rate	26,000 dscfm	

**Emission Factors**

		<u>Units</u>	<u>Basis</u>
PM	0.075	lb/ton	AP-42, Table 9.9.1-1
PM10	0.0190	lb/ton	AP-42, Table 9.9.1-1
PM2.5	0.0032	lb/ton	AP-42, Table 9.9.1-1

	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)
<b>Uncontrolled Potential</b>	32.40	8.21	1.38	60.0	15.2	2.6
<b>Baghouse Emissions</b>	0.45	0.45	0.22	1.95	1.95	0.98

**Bean Dryers - old****CD-3 & 4 old****Particulate Emissions**

Design Rate	250 tons/hr	
Annual Average Rate	164.5 tons/hr	bottlenecked rate
Capture Efficiency	0 %	
Operation	8,760 hours/year	
Annual Throughput	1,441,020 ton/year	bottlenecked rate

**Emission Factors**

Uncontrolled		<u>Units</u>	<u>Basis</u>
PM	0.088	lb/ton	1990 Stack Test
PM10	0.0440	lb/ton	50% of PM AP-42, Section 9.9
PM2.5	0.0075	lb/ton	50% of PM AP-42, Section 9.10

	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)
<b>Uncontrolled Potential</b>	22.00	11.00	1.87	63.40	31.70	5.39

**Combustion Emissions**

Heat Content of Fuel	1,000 MMBtu/MMCF	Natural Gas
Heat Use	0.221 MMBtu/ton	
Maximum Firing Rate	0.055 MMCF/hr	
Average Firing Rate	0.036 MMCF/hr	
Annual Firing Rate	318.5 MMCF/yr	total dryer natural gas burned in both dryers
Operation	8,760 hours/year	

**Emission Factors (lb/MMCF)**

PM	PM10	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	n-hexane
-	-	-	0.6	100.0	84	5.5	1.8

Emission factors for natural gas combustion are from AP42, Tables 1.4-1,-2,-3, July 1998

PM emissions are covered in dryer PM emissions

	<u>PM</u>	<u>PM10</u>	<u>PM2.5</u>	<u>SO<sub>2</sub></u>	<u>NO<sub>x</sub></u>	<u>CO</u>	<u>VOC</u>	<u>n-hexane</u>
<b>Max Hourly (lb/hr)</b>	-	-	-	0.033	5.53	4.64	0.30	0.10
<b>Max Annual (tpy)</b>	-	-	-	0.10	15.92	13.38	0.88	0.29

**Greenhouse Gasses**

Emission Factors (lb/MMCF)			Global Warming Potential		
CO <sub>2</sub>	N <sub>2</sub> O	Methane	CO <sub>2</sub>	N <sub>2</sub> O	Methane
120,000	0.64	2.3	1.0	310	21

	<u>CO<sub>2</sub></u>	<u>N<sub>2</sub>O</u>	<u>Methane</u>	<u>CO<sub>2e</sub></u>
<b>Max Hourly (lb/hr)</b>	6,630	0.035	0.127	6,644
<b>Max Annual (tpy)</b>	19,108	0.102	0.366	19,147



**Bean Dryers - new****CD-3A, 3B, 3C, 4A, 4B & 4C new****Particulate Emissions**

Design Rate	303.6 tons/hr	
Annual Average Rate	164.5 tons/hr	bottlenecked rate
Capture Efficiency	0 %	
Operation	8,750 hours/year	
Annual Throughput	1,441,020 ton/year	bottlenecked rate

**Emission Factors**

Uncontrolled		Units	Basis
PM	0.088	lb/ton	1990 Stack Test
PM10	0.0440	lb/ton	50% of PM AP-42, Section 9.9
PM2.5	0.0075	lb/ton	50% of PM AP-42, Section 9.10

	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)
<b>Uncontrolled Potential</b>	26.72	13.36	2.27	63.40	31.70	5.39

**Combustion Emissions**

Heat Content of Fuel	1,000 MMBtu/MMCF	Natural Gas
Heat Use	0.221 MMBtu/ton	
Maximum Firing Rate	0.067 MMCF/hr	
Average Firing Rate	0.036 MMCF/hr	
Annual Firing Rate	318.5 MMCF/yr	total dryer natural gas burned in both dryers
Operation	8,750 hours/year	

**Emission Factors (lb/MMCF)**

PM	PM10	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	n-hexane
-	-	-	0.6	100.0	84	5.5	1.8

Emission factors for natural gas combustion are from AP42, Tables 1.4-1,-2,-3, July 1998  
PM emissions are covered in dryer PM emissions

	PM	PM10	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	n-hexane
<b>Max Hourly (lb/hr)</b>	-	-	-	0.040	6.71	5.64	0.37	0.12
<b>Max Annual (tpy)</b>	-	-	-	0.10	15.92	13.38	0.88	0.29

**Greenhouse Gasses**

Emission Factors (lb/MMCF)			Global Warming Potential		
CO <sub>2</sub>	N <sub>2</sub> O	Methane	CO <sub>2</sub>	N <sub>2</sub> O	Methane
120,000	0.64	2.3	1.0	310	21

	CO <sub>2</sub>	N <sub>2</sub> O	Methane	CO <sub>2</sub> e
<b>Max Hourly (lb/hr)</b>	8,051	0.043	0.154	8,068
<b>Max Annual (tpy)</b>	19,108	0.102	0.366	19,147



# Illinois Environmental Protection Agency

Bureau of Air • 1021 North Grand Avenue East • P.O. Box 19506 • Springfield • Illinois • 62794-9506

## FEE DETERMINATION FOR CONSTRUCTION PERMIT APPLICATION

### FOR AGENCY USE ONLY

ID Number: \_\_\_\_\_ Permit #: \_\_\_\_\_  
 Complete     Incomplete    Date Complete: \_\_\_\_\_  
 Check Number: \_\_\_\_\_ Account Name: \_\_\_\_\_

This form is to be used to supply fee information that must accompany all construction permit applications. This application must include payment in full to be deemed complete. Make check or money order payable to the Illinois Environmental Protection Agency, Division of Air Pollution Control - Permit Section at the above address. Do NOT send cash. Refer to instructions (197-INST) for assistance.

### Source Information

1. Source Name: Bunge North America, Inc.  
 2. Project Name: Bean Cleaning/Drying Like Kind Replacement    3. Source ID #: (if applicable) 003005AAI  
 4. Contact Name: James Burris    5. Contact Phone #: 314-292-2937

### Fee Determination

6. The boxes below are automatically calculated.

Section 1 Subtotal    \$0.00    +    Section 2, 3 or 4 Subtotal    \$10,000.00    =    \$10,000.00  
Grand Total

### Section 1: Status of Source/Purpose of Submittal

7. Your application will fall under only one of the following five categories described below. Check the box that applies. Proceed to applicable sections. For purposes of this form:

- Major Source** is a source that is required to obtain a CAAPP permit.
  - Synthetic Minor Source** is a source that has taken limits on potential to emit in a permit to avoid CAAPP permit requirements (e.g., FESOP).
  - Non-Major Source** is a source that is not a major or synthetic minor source.
- Existing source without status change or with status change from synthetic minor to major source or vice versa. Proceed to Section 2.
- Existing non-major source that will become synthetic minor to major source. Proceed to Section 4.
- New major or synthetic minor source. Proceed to Section 4. \$0.00
- New non-major source. Proceed to Section 3. Section 1 Subtotal
- AGENCY ERROR.** If this is a timely request to correct an issued permit that involves only an agency error and if the request is received within the deadline for a permit appeal to the Pollution Control Board. Skip Sections 2, 3 and 4. Proceed directly to Section 5.

This agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 ET SEQ. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

### Section 2: Special Case Filing Fee

8. **Filing Fee.** If the application only addresses one or more of the following, check the appropriate boxes, skip Sections 3 and 4 and proceed directly to Section 5. Otherwise, proceed to Section 3 or 4 as appropriate.

Addition or replacement of control devices on permitted units.  
 Pilot projects/trial burns by a permitted unit  
 Land remediation projects \$0.00  
 Revisions related to methodology or timing for emission testing  
 Minor administrative-type change to a permit



Illinois Environmental Protection Agency  
Division Of Air Pollution Control – Permit Section  
P.O. Box 19506  
Springfield, Illinois 62794-9506

<b>Construction Permit Application for a Proposed Project at a CAAPP Source</b>	For Illinois EPA use only
	ID No.:
	Appl. No.:
	Date Rec'd:
Chk No./Amt:	

This form is to be used to supply general information to obtain a construction permit for a proposed project involving a Clean Air Act Permit Program (CAAPP) source, including construction of a new CAAPP source. Detailed information about the project must also be included in a construction permit application, as addressed in the "General Instructions For Permit Applications," Form APC-201.

Proposed Project
1. Working Name of Proposed Project: Bean Cleaning/Drying Like Kind Replacement
2. Is the project occurring at a source that already has a permit from the Bureau of Air (BOA)? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If Yes, provide BOA ID Number: <u>003005AAI</u>
3. Does this application request a revision to an existing construction permit issued by the BOA? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If Yes, provide Permit Number: _____
4. Brief Description of Proposed Project: Maintenance project to replace in kind bean cleaning and bean drying equipment that has exceeded its useful life.

Source Information		
1. Source name:* Bunge North America, Inc.		
2. Source street address:* 203 34th Street		
3. City: Cairo	4. County: Alexander	5. Zip code:* 62914
ONLY COMPLETE THE FOLLOWING FOR A SOURCE WITHOUT AN ID NUMBER		
6. Is the source located within city limits? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, provide Township Name: _____		
7. Description of source and product(s) produced:	8. Primary Classification Code of source: SIC: _____ or NAICS: _____	
9. Latitude (DD:MM:SS.SSSS):	10. Longitude (DD:MM:SS.SSSS):	

\* Is information different than previous information?  Yes  No  
If yes, then complete Form CAAPP 273 to apply for an Administrative Change to the CAAPP Permit for the source.

Identification of Permit Applicant	
1. Who is the applicant? <input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator	2. All correspondence to: (check one) <input checked="" type="checkbox"/> Source <input type="checkbox"/> Owner <input type="checkbox"/> Operator
3. Applicant's FEIN: 13-4977260	4. Attention name and/or title for written correspondence: Christopher Cunningham, Plant Manager

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

Owner Information*		
1. Name: Bunge Chevron Ag Renewables LLC		
2. Address: 1391 Timberlake Manor Parkway		
3. City: Chesterfield	4. State: MO	5. Zip code: 63017

\* Is this information idifferent than previous information?  Yes  No  
If yes, then complete Form CAAPP 273 to apply for an Administrative Change to the CAAPP Permit for the source.

Operator Information (if different from owner)*		
1. Name Bunge North America, Inc.		
2. Address: 203 34th Street		
3. City: Cairo	4. State: IL	5. Zip code: 62914

\* Is this information different than previous information?  Yes  No  
If yes, then complete Form CAAPP 273 to apply for an Administrative Change to the CAAPP Permit for the source.

Technical Contacts for Application	
1. Preferred technical contact: (check one) <input checked="" type="checkbox"/> Applicant's contact <input type="checkbox"/> Consultant	
2. Applicant's technical contact person for application: James Burris	
3. Contact person's telephone number(s) 314-292-2937	4. Contact person's e-mail address: james.burris@bunge.com
5. Consultant for application:	
6. Consultant's telephone number(s):	7. Consultant's e-mail address:

Other Addresses for the Permit Applicant	
ONLY COMPLETE THE FOLLOWING FOR A SOURCE WITHOUT AN ID NUMBER.	
1. Address for billing Site Fees for the source: <input checked="" type="checkbox"/> Source <input type="checkbox"/> Other (provide below):	
2. Contact person for Site Fees:	3. Contact person's telephone number:
4. Address for Annual Emission Report for the source: <input type="checkbox"/> Source <input type="checkbox"/> Other (provide below):	
5. Contact person for Annual Emission Report:	6. Contact person's telephone number:

<b>Review Of Contents of the Application</b>	
<b>NOTE: ANSWERING "NO" TO THESE ITEMS MAY RESULT IN THE APPLICATION BEING DEEMED INCOMPLETE</b>	
1. Does the application include a narrative description of the proposed project?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Does the application clearly identify the emission units and air pollution control equipment that are part of the project?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3. Does the application include process flow diagram(s) for the project showing new and modified emission units and control equipment, along with associated existing equipment and their relationships?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4. Does the application include a general description of the source, a plot plan for the source and a site map for its location?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A* * Material previously provided
5. Does the application include relevant technical information for the proposed project as requested on CAAPP application forms (or otherwise contain all relevant technical information)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6. Does the application include relevant supporting data and information for the proposed project as provided on CAAPP forms?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7. Does the application identify and address all applicable emission standards for the proposed project, including: State emission standards (35 IAC Chapter I, Subtitle B); Federal New Source Performance Standards (40 CFR Part 60)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
8. Does the application address whether the project would be a major project for Prevention of Significant Deterioration, 40 CFR 52.21?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
9. Does the application address whether the project would be a major project for "Nonattainment New Source Review," 35 IAC Part 203?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
10. Does the application address whether the proposed project would potentially be subject to federal regulations for Hazardous Air Pollutants (40 CFR Part 63) and address any emissions standards for hazardous air pollutants that would be applicable?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A* * Source not major <input type="checkbox"/> Project not major <input type="checkbox"/>
11. Does the application include a summary of annual emission data for different pollutants for the proposed project (tons/year), including: 1) The requested permitted emissions for individual new, modified and affected existing units*, 2) The past actual emissions and change in emissions for individual modified units* and affected existing units*, and 3) Total emissions consequences of the proposed project? (* Or groups of related units)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A * The project does not involve an increase in emissions from new or modified emission units.
12. Does the application include a summary of the current and requested potential emissions of the source (tons/year)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A* * Applicability of PSD, NA NSR or 40 CFR 63 to the project is not related to the source's emissions.
13. Does the application address the relationships and implications of the proposed project on the CAAPP Permit for the source?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A* * CAAPP Permit not issued
14. If the application contains information that is considered a TRADE SECRET, has it been properly marked and claimed and all requirements to properly support the claim pursuant to 35 IAC Part 130 been met? Note: "Claimed" information will not be legally protected from disclosure to the public if it is not properly claimed or does not qualify as trade secret information.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A* * No information in the application is claimed to be a TRADE SECRET
15. Are the correct number of copies of the application provided? (See Instructions for Permit Applications, Form 201)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
16. Does the application include a completed "FEE DETERMINATION FOR CONSTRUCTION PERMIT APPLICATION," Form 197-FEE, a check in the amount indicated on this form, and any supporting material needed to explain how the fee was determined?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

### Signature Block

Authorized Signature:

I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete and that I am a responsible official for the source, as defined by Section 39.5(1) of the Environmental Protection Act.

BY:

*Christopher Cunningham*  
SIGNATURE

Plant Manager  
TITLE OF SIGNATORY

AUTHORIZED

TITLE OF SIGNATORY

Christopher Cunningham  
TYPED OR PRINTED NAME OF SIGNATORY

10 26 2022  
DATE

TYPED OR PRINTED NAME OF SIGNATORY

DATE

Bunge North America, Inc.  
Cairo, IL  
Facility ID 003005AAI

Past Actual to PTE Emission Calculations

Existing Plant Capacity (bu/day)	131,600	
Existing Plant Capacity (ton/day)	3,948	
Existing Plant Capacity (ton/yr)	1,601,133	dirty beans (10% fm)
Existing Plant Capacity (ton/yr)	1,441,020	cleaned beans
Hours of Operation (hours/yr)	8,760	plant/extraction
Days of Operation (days)	365	

Fuel Use/Combustion

Dryer Natural Gas (MMBtu/ton)	0.221	highest expected MMBtu/ton beans
Dryer Natural Gas (MMCF/yr)	318.5	assumes heat content of natural gas is 1000 Btu/cf

Past Actual Feb 2015-Jan 2017

Beans Dried (ton/24-month)	2,431,234
Bean Cleaning Hours of Operation (hours/24-month)	8,104
Dryer Natural Gas (MMCF/24-month)	472.5

Bean Cleaning - old

CD-1 old

Design Cleaning Rate	432 tons/hr	
Annual Average Cleaning Rate	164.5 tons/hr	bottlenecked rate
Capture Efficiency	100 %	all enclosed and aspirated
Operation	8,104 hours/24-month	
24-Month Throughput	2,431,234 ton/24-month	
PM/PM10 Grain Loading	0.002 grain/dscf	expected baghouse grainloading
PM2.5 Grain Loading	0.001 grain/dscf	PM2.5 is 50% PM10 conservatively based on stack test data
Exhaust Fan Flow Rate	5,761 dscfm	

	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)
Baghouse Emissions 24-month	0.10	0.10	0.05	0.42	0.42	0.21
Baghouse Emissions annual				0.21	0.21	0.11

Emission Factors

		Units	Basis
PM	0.075	lb/ton	AP-42, Table 9.9.1-1
PM10	0.0190	lb/ton	AP-42, Table 9.9.1-1
PM2.5	0.0032	lb/ton	AP-42, Table 9.9.1-1

	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)
Uncontrolled Potential	32.40	8.21	1.38	91.2	23.1	3.9

Bean Cleaning - new

CD-1 new

Design Rate	250 tons/hr	
Annual Average Rate	164.5 tons/hr	bottlenecked rate
Capture Efficiency	100 %	all enclosed and aspirated
Operation	8,760 hours/year	
Annual Throughput	1,601,133 ton/year	beans received before cleaning
PM/PM10 Grain Loading	0.002 grain/dscf	expected baghouse grainloading
PM2.5 Grain Loading	0.001 grain/dscf	PM2.5 is 50% PM10 conservatively based on stack test data
Exhaust Fan Flow Rate	26,000 acfm	
Exhaust Fan Flow Rate	26,000 dscfm	

Emission Factors

		Units	Basis
PM	0.075	lb/ton	AP-42, Table 9.9.1-1
PM10	0.0190	lb/ton	AP-42, Table 9.9.1-1
PM2.5	0.0032	lb/ton	AP-42, Table 9.9.1-1

	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)
Uncontrolled Potential	32.40	8.21	1.38	91.2	23.1	3.9
Baghouse Emissions	0.45	0.45	0.22	1.95	1.95	0.98





ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF AIR POLLUTION CONTROL – PERMIT SECTION  
P.O. BOX 19506  
SPRINGFIELD, ILLINOIS 62794-9506

**FOR APPLICANT'S USE**

Revision #: \_\_\_\_\_  
Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
Page \_\_\_\_\_ of \_\_\_\_\_  
Source Designation: \_\_\_\_\_

<b>PROCESS EMISSION UNIT DATA AND INFORMATION</b>	<b>FOR AGENCY USE ONLY</b>
	ID NUMBER: _____
	EMISSION POINT #: _____
DATE: _____	

<b>SOURCE INFORMATION</b>	
1) SOURCE NAME: Bunge North America, Inc.	
2) DATE FORM PREPARED: 10-21-2022	3) SOURCE ID NO. (IF KNOWN): 003005AAI

<b>GENERAL INFORMATION</b>	
4) NAME OF EMISSION UNIT: CD-1 Bean Cleaning	
5) NAME OF PROCESS: Bean Cleaning	
6) DESCRIPTION OF PROCESS: Soybeans pass through the bean cleaning equipment to remove foreign material (FM).	
7) DESCRIPTION OF ITEM OR MATERIAL PRODUCED OR ACTIVITY ACCOMPLISHED: Cleaned Soybeans	
8) FLOW DIAGRAM DESIGNATION OF EMISSION UNIT: CD-1	
9) MANUFACTURER OF EMISSION UNIT (IF KNOWN): Kice	
10) MODEL NUMBER (IF KNOWN): Varies	11) SERIAL NUMBER (IF KNOWN): Varies
12) DATES OF COMMENCING CONSTRUCTION, OPERATION AND/OR MOST RECENT MODIFICATION OF THIS EMISSION UNIT (ACTUAL OR PLANNED)	a) CONSTRUCTION (MONTH/YEAR): December 1, 2022
	b) OPERATION (MONTH/YEAR): June 1, 2023
	c) LATEST MODIFICATION (MONTH/YEAR): NA
13) DESCRIPTION OF MODIFICATION (IF APPLICABLE): The existing bean cleaning equipment has reached the end of its useful life and is being replaced in kind.	

THIS AGENCY IS AUTHORIZED TO REQUIRE THIS INFORMATION UNDER ILLINOIS REVISED STATUTES, 1991, AS AMENDED 1992, CHAPTER 111 1/2, PAR. 1039.5. DISCLOSURE OF THIS INFORMATION IS REQUIRED UNDER THAT SECTION. FAILURE TO DO SO MAY PREVENT THIS FORM FROM BEING PROCESSED AND COULD RESULT IN THE APPLICATION BEING DENIED. THIS FORM HAS BEEN APPROVED BY THE FORMS MANAGEMENT CENTER.

APPLICATION PAGE \_\_\_\_\_

Printed on Recycled Paper  
220-CAAPP

**FOR APPLICANT'S USE**

14) DOES THE EMISSION UNIT HAVE MORE THAN ONE MODE OF OPERATION?  YES  NO  
 IF YES, EXPLAIN AND IDENTIFY WHICH MODE IS COVERED BY THIS FORM (NOTE: A SEPARATE PROCESS EMISSION UNIT FORM 220-CAAPP MUST BE COMPLETED FOR EACH MODE):

15) PROVIDE THE NAME AND DESIGNATION OF ALL AIR POLLUTION CONTROL EQUIPMENT CONTROLLING THIS EMISSION UNIT, IF APPLICABLE (FORM 260-CAAPP AND THE APPROPRIATE 260-CAAPP ADDENDUM FORM MUST BE COMPLETED FOR EACH ITEM OF AIR POLLUTION CONTROL EQUIPMENT):  
 CD-1 Baghouse

16) WILL EMISSIONS DURING STARTUP EXCEED EITHER THE ALLOWABLE EMISSION RATE PURSUANT TO A SPECIFIC RULE, OR THE ALLOWABLE EMISSION LIMIT AS ESTABLISHED BY AN EXISTING OR PROPOSED PERMIT CONDITION?  YES  NO  
 IF YES, COMPLETE AND ATTACH FORM 203-CAAPP, "REQUEST TO OPERATE WITH EXCESS EMISSIONS DURING STARTUP OF EQUIPMENT".

17) PROVIDE ANY LIMITATIONS ON SOURCE OPERATION AFFECTING EMISSIONS OR ANY WORK PRACTICE STANDARDS (E.G., ONLY ONE UNIT IS OPERATED AT A TIME):  
 Bottlenecked by other equipment at the plant. The cleaning equipment can not clean more beans annually than can be processed by the soybean processing plant.

**OPERATING INFORMATION**

18) ATTACH THE CALCULATIONS, TO THE EXTENT THEY ARE AIR EMISSION RELATED, FROM WHICH THE FOLLOWING OPERATING INFORMATION, MATERIAL USAGE INFORMATION AND FUEL USAGE DATA WERE BASED AND LABEL AS EXHIBIT 220-1. REFER TO SPECIAL NOTES OF FORM 202-CAAPP.

19a) MAXIMUM OPERATING HOURS 8760	HOURS/DAY: <del>18</del> 24	DAYS/WEEK: 7	WEEKS/YEAR: 52
b) TYPICAL OPERATING HOURS 6552	HOURS/DAY: 18	DAYS/WEEK: 7	WEEKS/YEAR: 52
20) ANNUAL THROUGHPUT 1,601,133 ton/yr	DEC-FEB(%): 25	MAR-MAY(%): 25	JUN-AUG(%): 25 SEP-NOV(%): 25

**MATERIAL USAGE INFORMATION**

21a) RAW MATERIALS	MAXIMUM RATES		TYPICAL RATES	
	LBS/HR	TONS/YEAR	LBS/HR	TONS/YEAR
Soybeans (as received)	600,000	1,601,133	555,000	Varies

21b) PRODUCTS	MAXIMUM RATES		TYPICAL RATES	
	LBS/HR	TONS/YEAR	LBS/HR	TONS/YEAR
Soybean (cleaned)	540,000	1,441,020	500,000	varies

21c) BY-PRODUCT MATERIALS	MAXIMUM RATES		TYPICAL RATES	
	LBS/HR	TONS/YEAR	LBS/HR	TONS/YEAR
Screening	60,000	160,113	50,000	varies

FUEL USAGE DATA		
22a) MAXIMUM FIRING RATE (MILLION BTU/HR): NA	b) TYPICAL FIRING RATE (MILLION BTU/HR): NA	c) DESIGN CAPACITY FIRING RATE (MILLION BTU/HR): NA
d) FUEL TYPE: <input type="checkbox"/> NATURAL GAS <input type="checkbox"/> FUEL OIL: GRADE NUMBER _____ <input type="checkbox"/> COAL <input type="checkbox"/> OTHER _____ IF MORE THAN ONE FUEL IS USED, ATTACH AN EXPLANATION AND LABEL AS EXHIBIT 220-2.		
e) TYPICAL HEAT CONTENT OF FUEL (BTU/LB, BTU/GAL OR BTU/SCF):	f) TYPICAL SULFUR CONTENT (WT %, NA FOR NATURAL GAS):	
g) TYPICAL ASH CONTENT (WT %, NA FOR NATURAL GAS):	h) ANNUAL FUEL USAGE (SPECIFY UNITS, E.G., SCF/YEAR, GAL/YEAR, TON/YEAR):	
23) ARE COMBUSTION EMISSIONS DUCTED TO THE SAME STACK OR CONTROL AS PROCESS UNIT EMISSIONS? <input type="checkbox"/> YES <input type="checkbox"/> NO IF NO, IDENTIFY THE EXHAUST POINT FOR COMBUSTION EMISSIONS:		

**APPLICABLE RULES**

24) PROVIDE ANY SPECIFIC EMISSION STANDARD(S) AND LIMITATION(S) SET BY RULE(S) WHICH ARE APPLICABLE TO THIS EMISSION UNIT (E.G., VOM, IAC 218.204(j)(4), 3.5 LBS/GAL):

REGULATED AIR POLLUTANT(S)	EMISSION STANDARD(S)	REQUIREMENT(S)
See Attached Summary		

25) PROVIDE ANY SPECIFIC RECORDKEEPING RULE(S) WHICH ARE APPLICABLE TO THIS EMISSION UNIT:

REGULATED AIR POLLUTANT(S)	RECORDKEEPING RULE(S)	REQUIREMENT(S)

26) PROVIDE ANY SPECIFIC REPORTING RULE(S) WHICH ARE APPLICABLE TO THIS EMISSION UNIT:

REGULATED AIR POLLUTANT(S)	REPORTING RULE(S)	REQUIREMENT(S)

27) PROVIDE ANY SPECIFIC MONITORING RULE(S) WHICH ARE APPLICABLE TO THIS EMISSION UNIT:

REGULATED AIR POLLUTANT(S)	MONITORING RULE(S)	REQUIREMENT(S)

28) PROVIDE ANY SPECIFIC TESTING RULES AND/OR PROCEDURES WHICH ARE APPLICABLE TO THIS EMISSION UNIT :

REGULATED AIR POLLUTANT(S)	TESTING RULE(S)	REQUIREMENT(S)

29) DOES THE EMISSION UNIT QUALIFY FOR AN EXEMPTION FROM AN OTHERWISE APPLICABLE RULE?  YES  NO

IF YES, THEN LIST BOTH THE RULE FROM WHICH IT IS EXEMPT AND THE RULE WHICH ALLOWS THE EXEMPTION. PROVIDE A DETAILED EXPLANATION JUSTIFYING THE EXEMPTION. INCLUDE DETAILED SUPPORTING DATA AND CALCULATIONS. ATTACH AND LABEL AS EXHIBIT 220-3, OR REFER TO OTHER ATTACHMENT(S) WHICH ADDRESS AND JUSTIFY THIS EXEMPTION.

**COMPLIANCE INFORMATION**

30) IS THE EMISSION UNIT IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS?  YES  NO

IF NO, THEN FORM 294-CAAPP "COMPLIANCE PLAN/SCHEDULE OF COMPLIANCE – ADDENDUM FOR NON COMPLYING EMISSION UNITS" MUST BE COMPLETED AND SUBMITTED WITH THIS APPLICATION.

31) EXPLANATION OF HOW INITIAL COMPLIANCE IS TO BE, OR WAS PREVIOUSLY, DEMONSTRATED:

32) EXPLANATION OF HOW ONGOING COMPLIANCE WILL BE DEMONSTRATED:

**TESTING, MONITORING, RECORDKEEPING AND REPORTING**

33a) LIST THE PARAMETERS THAT RELATE TO AIR EMISSIONS FOR WHICH RECORDS ARE BEING MAINTAINED TO DETERMINE FEES, RULE APPLICABILITY OR COMPLIANCE. INCLUDE THE UNIT OF MEASUREMENT, THE METHOD OF MEASUREMENT, AND THE FREQUENCY OF SUCH RECORDS (E.G., HOURLY, DAILY, WEEKLY):

PARAMETER	UNIT OF MEASUREMENT	METHOD OF MEASUREMENT	FREQUENCY
VE	Present or Not	Visual	Quarterly

33b) BRIEFLY DESCRIBE THE METHOD BY WHICH RECORDS WILL BE CREATED AND MAINTAINED. FOR EACH RECORDED PARAMETER INCLUDE THE METHOD OF RECORDKEEPING, TITLE OF PERSON RESPONSIBLE FOR RECORDKEEPING, AND TITLE OF PERSON TO CONTACT FOR REVIEW OF RECORDS:

PARAMETER	METHOD OF RECORDKEEPING	TITLE OF PERSON RESPONSIBLE	TITLE OF CONTACT PERSON
VE	Paper/Electronic	Varies	Varies

c) IS COMPLIANCE OF THE EMISSION UNIT READILY DEMONSTRATED BY REVIEW OF THE RECORDS?  YES  NO

IF NO, EXPLAIN:

d) ARE ALL RECORDS READILY AVAILABLE FOR INSPECTION, COPYING AND SUBMITTAL TO THE AGENCY UPON REQUEST?  YES  NO

IF NO, EXPLAIN:

34a) DESCRIBE ANY MONITORS OR MONITORING ACTIVITIES USED TO DETERMINE FEES, RULE APPLICABILITY OR COMPLIANCE:

NA

b) WHAT PARAMETER(S) IS(ARE) BEING MONITORED (E.G., VOM EMISSIONS TO ATMOSPHERE)?

NA

c) DESCRIBE THE LOCATION OF EACH MONITOR (E.G., IN STACK MONITOR 3 FEET FROM EXIT):

NA

34d) IS EACH MONITOR EQUIPPED WITH A RECORDING DEVICE?  YES  NO  
 IF NO, LIST ALL MONITORS WITHOUT A RECORDING DEVICE:  
 NA

---

e) IS EACH MONITOR REVIEWED FOR ACCURACY ON AT LEAST A QUARTERLY BASIS?  YES  NO  
 IF NO, EXPLAIN:  
 NA

---

f) IS EACH MONITOR OPERATED AT ALL TIMES THE ASSOCIATED EMISSION UNIT IS IN OPERATION?  YES  NO  
 IF NO, EXPLAIN:  
 NA

---

35) PROVIDE INFORMATION ON THE MOST RECENT TESTS, IF ANY, IN WHICH THE RESULTS ARE USED FOR PURPOSES OF THE DETERMINATION OF FEES, RULE APPLICABILITY OR COMPLIANCE. INCLUDE THE TEST DATE, TEST METHOD USED, TESTING COMPANY, OPERATING CONDITIONS EXISTING DURING THE TEST AND A SUMMARY OF RESULTS. IF ADDITIONAL SPACE IS NEEDED, ATTACH AND LABEL AS EXHIBIT 220-4:

TEST DATE	TEST METHOD	TESTING COMPANY	OPERATING CONDITIONS	SUMMARY OF RESULTS
NA				

---

36) DESCRIBE ALL REPORTING REQUIREMENTS AND PROVIDE THE TITLE AND FREQUENCY OF REPORT SUBMITTALS TO THE AGENCY:

REPORTING REQUIREMENTS	TITLE OF REPORT	FREQUENCY
NA		

(37) EMISSION INFORMATION											
REGULATED AIR POLLUTANT		<input type="checkbox"/> <sup>1</sup> ACTUAL EMISSION RATE <input type="checkbox"/> <sup>1</sup> UNCONTROLLED EMISSION RATE					ALLOWABLE BY RULE EMISSION RATE			<sup>2</sup> PERMITTED EMISSION RATE	
		LBS PER HOUR (LBS/HR)	TONS PER YEAR (TONS/YR)	<sup>3</sup> OTHER TERMS	<sup>3</sup> OTHER TERMS	<sup>4</sup> DM	<sup>5</sup> RATE	(UNITS)	APPLICABLE RULES	TONS PER YEAR (TONS/YR)	RATE (UNITS)
CARBON MONOXIDE (CO)	MAXIMUM:	See	Attached				( )				
	TYPICAL:						( )				
LEAD	MAXIMUM:						( )				
	TYPICAL:						( )				
NITROGEN OXIDES (NOx)	MAXIMUM:						( )				
	TYPICAL:						( )				
PARTICULATE MATTER (PART)	MAXIMUM:						( )				
	TYPICAL:						( )				
PARTICULATE MATTER <= 10 MICROMETERS (PM10)	MAXIMUM:						( )				
	TYPICAL:						( )				
SULFUR DIOXIDE (SO2)	MAXIMUM:						( )				
	TYPICAL:						( )				
VOLATILE ORGANIC MATERIAL (VOM)	MAXIMUM:						( )				
	TYPICAL:						( )				
OTHER, SPECIFY:	MAXIMUM:						( )				
	TYPICAL:						( )				
EXAMPLE: PARTICULATE MATTER	MAXIMUM:	5.00	21.9	0.3 GR/DSCF		1	6.0 (LBS/HR)	212.321	26.28	5.5 LBS/HR	22
	TYPICAL:	4.00	14.4	0.24 GR/DSCF		4	5.5 (LBS/HR)	212.321	19.80		

IMPORTANT: ATTACH CALCULATIONS, TO THE EXTENT THEY ARE AIR EMISSIONS RELATED, ON WHICH EMISSIONS WERE DETERMINED AND LABEL AS EXHIBIT 220-5.

- <sup>1</sup>CHECK UNCONTROLLED EMISSION RATE BOX IF CONTROL EQUIPMENT IS USED, OTHERWISE CHECK AND PROVIDE THE ACTUAL EMISSION RATE TO ATMOSPHERE, INCLUDING INDOORS. SEE INSTRUCTIONS.
- <sup>2</sup>PROVIDE THE EMISSION RATE THAT WILL BE USED AS A PERMIT SPECIAL CONDITION. THIS LIMIT WILL BE USED TO DETERMINE THE PERMIT FEE.
- <sup>3</sup>PLEASE PROVIDE ANY OTHER EMISSION RATE WHICH IS COMMONLY USED, REQUIRED BY A SPECIFIC LIMITATION OR THAT WAS MEASURED (E.G. PPM, GR/DSCF, ETC.)
- <sup>4</sup>DM - DETERMINATION METHOD: 1) STACK TEST, 2) MATERIAL BALANCE, 3) STANDARD EMISSION FACTOR (AP-42 OR AIRS), 4) ENGINEERING ESTIMATE, 5) SPECIAL EMISSION FACTOR (NOT AP-42 OR AIRS)
- <sup>5</sup>RATE - ALLOWABLE EMISSION RATE SPECIFIED BY MOST STRINGENT APPLICABLE RULE.

**APPLICATION PAGE** \_\_\_\_\_

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220-CAAPP





<b>EXHAUST POINT INFORMATION</b>		
THIS SECTION SHOULD NOT BE COMPLETED IF EMISSIONS ARE EXHAUSTED THROUGH AIR POLLUTION CONTROL EQUIPMENT.		
39) FLOW DIAGRAM DESIGNATION OF EXHAUST POINT: CD-1		
40) DESCRIPTION OF EXHAUST POINT (STACK, VENT, ROOF MONITOR, INDOORS, ETC.). IF THE EXHAUST POINT DISCHARGES INDOORS, DO NOT COMPLETE THE REMAINING ITEMS. Stack		
41) DISTANCE TO NEAREST PLANT BOUNDARY FROM EXHAUST POINT DISCHARGE (FT): TBD		
42) DISCHARGE HEIGHT ABOVE GRADE (FT): TBD		
43) GOOD ENGINEERING PRACTICE (GEP) HEIGHT, IF KNOWN (FT): Unknown		
44) DIAMETER OF EXHAUST POINT (FT): NOTE: FOR A NON CIRCULAR EXHAUST POINT, THE DIAMETER IS 1.128 TIMES THE SQUARE ROOT OF THE AREA. TBD		
45) EXIT GAS FLOW RATE 26,000	a) MAXIMUM (ACFM): 26,000	b) TYPICAL (ACFM): 26,000
46) EXIT GAS TEMPERATURE Ambient	a) MAXIMUM (°F):	b) TYPICAL (°F):
47) DIRECTION OF EXHAUST (VERTICAL, LATERAL, DOWNWARD): Vertical		
48) LIST ALL EMISSION UNITS AND CONTROL DEVICES SERVED BY THIS EXHAUST POINT:		
NAME	FLOW DIAGRAM DESIGNATION	
a) CD-1 Bean Cleaning		
b)		
c)		
d)		
e)		
THE FOLLOWING INFORMATION NEED ONLY BE SUPPLIED IF READILY AVAILABLE.		
49a) LATITUDE:		b) LONGITUDE:
50) UTM ZONE:	b) UTM VERTICAL (KM):	c) UTM HORIZONTAL (KM):



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
 DIVISION OF AIR POLLUTION CONTROL – PERMIT SECTION  
 P.O. BOX 19506  
 SPRINGFIELD, ILLINOIS 62794-9506

FOR APPLICANT'S USE	
Revision #:	_____
Date:	____ / ____ / ____
Page	_____ of _____
Source Designation:	_____

<b>SUPPLEMENTAL FORM                  AIR POLLUTION CONTROL                  EQUIPMENT                  FILTER (260C)</b>	<b>FOR AGENCY USE ONLY</b>
	ID NUMBER: _____
	CONTROL EQUIPMENT #: _____
	DATE: _____

DATA AND INFORMATION					
1) FLOW DIAGRAM DESIGNATION OF FILTER:  CD-1 Bean Cleaning					
2) FILTER CONFIGURATION (CHECK ONE): <input type="checkbox"/> OPEN PRESSURE <input type="checkbox"/> CLOSED PRESSURE <input checked="" type="checkbox"/> CLOSED SUCTION <input type="checkbox"/> OTHER, SPECIFY: _____					
3) DESCRIBE FILTER MATERIAL: TBD					
4) FILTERING AREA (SQUARE FEET): TBD	5) AIR TO CLOTH RATIO (FEET/MIN): TBD				
6) CLEANING METHOD <input type="checkbox"/> SHAKER <input type="checkbox"/> REVERSE AIR <input checked="" type="checkbox"/> PULSE AIR <input type="checkbox"/> PULSE JET <input type="checkbox"/> OTHER, SPECIFY: _____					
7) NORMAL RANGE OF PRESSURE DROP:    0.5                      TO                      10.0                      (INCH H <sub>2</sub> O)					
8a) INLET EMISSION STREAM PARAMETERS:					
	MAX                      TYPICAL				
MOISTURE CONTENT (% BY VOLUME):	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">Ambient</td> <td style="width: 50%; text-align: center;">Ambiet</td> </tr> <tr> <td style="width: 50%; text-align: center;">Varies</td> <td style="width: 50%; text-align: center;">Varies</td> </tr> </table>	Ambient	Ambiet	Varies	Varies
Ambient	Ambiet				
Varies	Varies				
PARTICULATE INLET LOADING (GRAINS/SCF):	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">Varies</td> <td style="width: 50%; text-align: center;">Varies</td> </tr> </table>	Varies	Varies		
Varies	Varies				
b) MEAN PARTICLE DIAMETER (MICRONS):  Varies					

THIS AGENCY IS AUTHORIZED TO REQUIRE THIS INFORMATION UNDER ILLINOIS REVISED STATUTES, 1991, AS AMENDED 1992, CHAPTER 111 1/2, PAR. 1039.5. DISCLOSURE OF THIS INFORMATION IS REQUIRED UNDER THAT SECTION. FAILURE TO DO SO MAY PREVENT THIS FORM FROM BEING PROCESSED AND COULD RESULT IN THE APPLICATION BEING DENIED. THIS FORM HAS BEEN APPROVED BY THE FORMS MANAGEMENT CENTER.

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FOR APPLICANT'S USE
_____

9) FILTER OPERATING PARAMETERS:

	DURING MAXIMUM OPERATION OF FEEDING UNIT(S)	DURING TYPICAL OPERATION OF FEEDING UNIT(S)
INLET FLOW RATE (SCFM):	26,000	26,000
INLET GAS TEMPERATURE (DEGREES FAHRENHEIT):	Ambient	Ambient
EFFICIENCY (PM REDUCTION):	(%) 90-99%	(%) 90-99%
EFFICIENCY (PM10 REDUCTION):	(%) 90-99%	(%) 90-99%

10) HOW IS FILTER MONITORED FOR INDICATIONS OF DETERIORATION (E.G., BROKEN BAGS)?

CONTINUOUS OPACITY     
  PRESSURE DROP     
  ALARMS-AUDIBLE TO PROCESS OPERATOR

VISUAL OPACITY READINGS, FREQUENCY: Quarterly

OTHER, SPECIFY: \_\_\_\_\_

11) DESCRIBE ANY RECORDING DEVICE AND FREQUENCY OF LOG ENTRIES:

Records of VE kept by paper or electronic.

12) DESCRIBE ANY FILTER SEEDING BEING PERFORMED:

NA



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF AIR POLLUTION CONTROL – PERMIT SECTION  
P.O. BOX 19506  
SPRINGFIELD, ILLINOIS 62794-9506

**FOR APPLICANT'S USE**

Revision #: \_\_\_\_\_  
Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
Page \_\_\_\_ of \_\_\_\_  
Source Designation: \_\_\_\_\_

<b>PROCESS EMISSION UNIT DATA AND INFORMATION</b>	<b>FOR AGENCY USE ONLY</b>
	ID NUMBER: _____
	EMISSION POINT #: _____
DATE: _____	

<b>SOURCE INFORMATION</b>	
1) SOURCE NAME: Bunge North America, Inc.	
2) DATE FORM PREPARED: 10-21-2022	3) SOURCE ID NO. (IF KNOWN): 003005AAI

<b>GENERAL INFORMATION</b>	
4) NAME OF EMISSION UNIT: CD-3A, 3B, 3C, 4A, 4B, 4C Bean Drying	
5) NAME OF PROCESS: Bean Drying	
6) DESCRIPTION OF PROCESS: Soybeans pass through the bean dryers to remove moisture from the beans.	
7) DESCRIPTION OF ITEM OR MATERIAL PRODUCED OR ACTIVITY ACCOMPLISHED: Dried Soybeans	
8) FLOW DIAGRAM DESIGNATION OF EMISSION UNIT: CD-3A, 3B, 3C, 4A, 4B, 4C	
9) MANUFACTURER OF EMISSION UNIT (IF KNOWN): Sukup	
10) MODEL NUMBER (IF KNOWN): TC245	11) SERIAL NUMBER (IF KNOWN): TBD
12) DATES OF COMMENCING CONSTRUCTION, OPERATION AND/OR MOST RECENT MODIFICATION OF THIS EMISSION UNIT (ACTUAL OR PLANNED)	a) CONSTRUCTION (MONTH/YEAR): December 1, 2022
	b) OPERATION (MONTH/YEAR): June 1, 2023
	c) LATEST MODIFICATION (MONTH/YEAR): NA
13) DESCRIPTION OF MODIFICATION (IF APPLICABLE): The existing bean dryers have reached the end of their useful life and are being replaced in kind.	

THIS AGENCY IS AUTHORIZED TO REQUIRE THIS INFORMATION UNDER ILLINOIS REVISED STATUTES, 1991, AS AMENDED 1992, CHAPTER 111 1/2, PAR. 1039.5. DISCLOSURE OF THIS INFORMATION IS REQUIRED UNDER THAT SECTION. FAILURE TO DO SO MAY PREVENT THIS FORM FROM BEING PROCESSED AND COULD RESULT IN THE APPLICATION BEING DENIED. THIS FORM HAS BEEN APPROVED BY THE FORMS MANAGEMENT CENTER.

APPLICATION PAGE \_\_\_\_\_

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**FOR APPLICANT'S USE**

14) DOES THE EMISSION UNIT HAVE MORE THAN ONE MODE OF OPERATION?  YES  NO  
 IF YES, EXPLAIN AND IDENTIFY WHICH MODE IS COVERED BY THIS FORM (NOTE: A SEPARATE PROCESS EMISSION UNIT FORM 220-CAAPP MUST BE COMPLETED FOR EACH MODE):

15) PROVIDE THE NAME AND DESIGNATION OF ALL AIR POLLUTION CONTROL EQUIPMENT CONTROLLING THIS EMISSION UNIT, IF APPLICABLE (FORM 260-CAAPP AND THE APPROPRIATE 260-CAAPP ADDENDUM FORM MUST BE COMPLETED FOR EACH ITEM OF AIR POLLUTION CONTROL EQUIPMENT):  
 None

16) WILL EMISSIONS DURING STARTUP EXCEED EITHER THE ALLOWABLE EMISSION RATE PURSUANT TO A SPECIFIC RULE, OR THE ALLOWABLE EMISSION LIMIT AS ESTABLISHED BY AN EXISTING OR PROPOSED PERMIT CONDITION?  YES  NO  
 IF YES, COMPLETE AND ATTACH FORM 203-CAAPP, "REQUEST TO OPERATE WITH EXCESS EMISSIONS DURING STARTUP OF EQUIPMENT".

17) PROVIDE ANY LIMITATIONS ON SOURCE OPERATION AFFECTING EMISSIONS OR ANY WORK PRACTICE STANDARDS (E.G., ONLY ONE UNIT IS OPERATED AT A TIME):  
 Bottlenecked by other equipment at the plant. The bean dryers can not dry more beans annually than can be processed by the soybean processing plant.

**OPERATING INFORMATION**

18) ATTACH THE CALCULATIONS, TO THE EXTENT THEY ARE AIR EMISSION RELATED, FROM WHICH THE FOLLOWING OPERATING INFORMATION, MATERIAL USAGE INFORMATION AND FUEL USAGE DATA WERE BASED AND LABEL AS EXHIBIT 220-1. REFER TO SPECIAL NOTES OF FORM 202-CAAPP.

19a) MAXIMUM OPERATING HOURS 8760	HOURS/DAY: <del>48</del> 24	DAYS/WEEK: 7	WEEKS/YEAR: 52
b) TYPICAL OPERATING HOURS 6552	HOURS/DAY: 18	DAYS/WEEK: 7	WEEKS/YEAR: 52
20) ANNUAL THROUGHPUT 1,441,020 ton/yr	DEC-FEB(%): 25	MAR-MAY(%): 25	JUN-AUG(%): 25 SEP-NOV(%): 25

**MATERIAL USAGE INFORMATION**

21a) RAW MATERIALS	MAXIMUM RATES		TYPICAL RATES	
	LBS/HR	TONS/YEAR	LBS/HR	TONS/YEAR
Soybeans	607,200	1,441,020	500,000	Varies

21b) PRODUCTS	MAXIMUM RATES		TYPICAL RATES	
	LBS/HR	TONS/YEAR	LBS/HR	TONS/YEAR
Soybean	607,200	1,441,020	500,000	varies

21c) BY-PRODUCT MATERIALS	MAXIMUM RATES		TYPICAL RATES	
	LBS/HR	TONS/YEAR	LBS/HR	TONS/YEAR
Screening	60,000	160,113	50,000	varies

FUEL USAGE DATA		
22a) MAXIMUM FIRING RATE (MILLION BTU/HR): 318.5 MMCF/yr	b) TYPICAL FIRING RATE (MILLION BTU/HR): Varies	c) DESIGN CAPACITY FIRING RATE (MILLION BTU/HR): 67.1
d) FUEL TYPE: <input checked="" type="checkbox"/> NATURAL GAS <input type="checkbox"/> FUEL OIL: GRADE NUMBER _____ <input type="checkbox"/> COAL <input type="checkbox"/> OTHER _____ IF MORE THAN ONE FUEL IS USED, ATTACH AN EXPLANATION AND LABEL AS EXHIBIT 220-2.		
e) TYPICAL HEAT CONTENT OF FUEL (BTU/LB, BTU/GAL OR BTU/SCF): 1000 Btu/CF	f) TYPICAL SULFUR CONTENT (WT %, NA FOR NATURAL GAS): NA	
g) TYPICAL ASH CONTENT (WT %, NA FOR NATURAL GAS): NA	h) ANNUAL FUEL USAGE (SPECIFY UNITS, E.G., SCF/YEAR, GAL/YEAR, TON/YEAR): 318.5 MMCF/yr	
23) ARE COMBUSTION EMISSIONS DUCTED TO THE SAME STACK OR CONTROL AS PROCESS UNIT EMISSIONS? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF NO, IDENTIFY THE EXHAUST POINT FOR COMBUSTION EMISSIONS: Grain dryer screens.		

**APPLICABLE RULES**

24) PROVIDE ANY SPECIFIC EMISSION STANDARD(S) AND LIMITATION(S) SET BY RULE(S) WHICH ARE APPLICABLE TO THIS EMISSION UNIT (E.G., VOM, IAC 218.204(j)(4), 3.5 LBS/GAL):

REGULATED AIR POLLUTANT(S)	EMISSION STANDARD(S)	REQUIREMENT(S)
See Attached Summary		

25) PROVIDE ANY SPECIFIC RECORDKEEPING RULE(S) WHICH ARE APPLICABLE TO THIS EMISSION UNIT:

REGULATED AIR POLLUTANT(S)	RECORDKEEPING RULE(S)	REQUIREMENT(S)

26) PROVIDE ANY SPECIFIC REPORTING RULE(S) WHICH ARE APPLICABLE TO THIS EMISSION UNIT:

REGULATED AIR POLLUTANT(S)	REPORTING RULE(S)	REQUIREMENT(S)

27) PROVIDE ANY SPECIFIC MONITORING RULE(S) WHICH ARE APPLICABLE TO THIS EMISSION UNIT:

REGULATED AIR POLLUTANT(S)	MONITORING RULE(S)	REQUIREMENT(S)

28) PROVIDE ANY SPECIFIC TESTING RULES AND/OR PROCEDURES WHICH ARE APPLICABLE TO THIS EMISSION UNIT :

REGULATED AIR POLLUTANT(S)	TESTING RULE(S)	REQUIREMENT(S)



29) DOES THE EMISSION UNIT QUALIFY FOR AN EXEMPTION FROM AN OTHERWISE APPLICABLE RULE?  YES  NO

IF YES, THEN LIST BOTH THE RULE FROM WHICH IT IS EXEMPT AND THE RULE WHICH ALLOWS THE EXEMPTION. PROVIDE A DETAILED EXPLANATION JUSTIFYING THE EXEMPTION. INCLUDE DETAILED SUPPORTING DATA AND CALCULATIONS. ATTACH AND LABEL AS EXHIBIT 220-3, OR REFER TO OTHER ATTACHMENT(S) WHICH ADDRESS AND JUSTIFY THIS EXEMPTION.

**COMPLIANCE INFORMATION**

30) IS THE EMISSION UNIT IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS?  YES  NO

IF NO, THEN FORM 294-CAAPP "COMPLIANCE PLAN/SCHEDULE OF COMPLIANCE – ADDENDUM FOR NON COMPLYING EMISSION UNITS" MUST BE COMPLETED AND SUBMITTED WITH THIS APPLICATION.

31) EXPLANATION OF HOW INITIAL COMPLIANCE IS TO BE, OR WAS PREVIOUSLY, DEMONSTRATED:

32) EXPLANATION OF HOW ONGOING COMPLIANCE WILL BE DEMONSTRATED:

**TESTING, MONITORING, RECORDKEEPING AND REPORTING**

33a) LIST THE PARAMETERS THAT RELATE TO AIR EMISSIONS FOR WHICH RECORDS ARE BEING MAINTAINED TO DETERMINE FEES, RULE APPLICABILITY OR COMPLIANCE. INCLUDE THE UNIT OF MEASUREMENT, THE METHOD OF MEASUREMENT, AND THE FREQUENCY OF SUCH RECORDS (E.G., HOURLY, DAILY, WEEKLY):

PARAMETER	UNIT OF MEASUREMENT	METHOD OF MEASUREMENT	FREQUENCY
None			

33b) BRIEFLY DESCRIBE THE METHOD BY WHICH RECORDS WILL BE CREATED AND MAINTAINED. FOR EACH RECORDED PARAMETER INCLUDE THE METHOD OF RECORDKEEPING, TITLE OF PERSON RESPONSIBLE FOR RECORDKEEPING, AND TITLE OF PERSON TO CONTACT FOR REVIEW OF RECORDS:

PARAMETER	METHOD OF RECORDKEEPING	TITLE OF PERSON RESPONSIBLE	TITLE OF CONTACT PERSON
None			

c) IS COMPLIANCE OF THE EMISSION UNIT READILY DEMONSTRATED BY REVIEW OF THE RECORDS?  YES  NO

IF NO, EXPLAIN:

d) ARE ALL RECORDS READILY AVAILABLE FOR INSPECTION, COPYING AND SUBMITTAL TO THE AGENCY UPON REQUEST?  YES  NO

IF NO, EXPLAIN:

34a) DESCRIBE ANY MONITORS OR MONITORING ACTIVITIES USED TO DETERMINE FEES, RULE APPLICABILITY OR COMPLIANCE:

NA

b) WHAT PARAMETER(S) IS(ARE) BEING MONITORED (E.G., VOM EMISSIONS TO ATMOSPHERE)?

NA

c) DESCRIBE THE LOCATION OF EACH MONITOR (E.G., IN STACK MONITOR 3 FEET FROM EXIT):

NA

34d) IS EACH MONITOR EQUIPPED WITH A RECORDING DEVICE?  YES  NO  
 IF NO, LIST ALL MONITORS WITHOUT A RECORDING DEVICE:  
 NA

---

e) IS EACH MONITOR REVIEWED FOR ACCURACY ON AT LEAST A QUARTERLY BASIS?  YES  NO  
 IF NO, EXPLAIN:  
 NA

---

f) IS EACH MONITOR OPERATED AT ALL TIMES THE ASSOCIATED EMISSION UNIT IS IN OPERATION?  YES  NO  
 IF NO, EXPLAIN:  
 NA

---

35) PROVIDE INFORMATION ON THE MOST RECENT TESTS, IF ANY, IN WHICH THE RESULTS ARE USED FOR PURPOSES OF THE DETERMINATION OF FEES, RULE APPLICABILITY OR COMPLIANCE. INCLUDE THE TEST DATE, TEST METHOD USED, TESTING COMPANY, OPERATING CONDITIONS EXISTING DURING THE TEST AND A SUMMARY OF RESULTS. IF ADDITIONAL SPACE IS NEEDED, ATTACH AND LABEL AS EXHIBIT 220-4:

TEST DATE	TEST METHOD	TESTING COMPANY	OPERATING CONDITIONS	SUMMARY OF RESULTS
NA				

---

36) DESCRIBE ALL REPORTING REQUIREMENTS AND PROVIDE THE TITLE AND FREQUENCY OF REPORT SUBMITTALS TO THE AGENCY:

REPORTING REQUIREMENTS	TITLE OF REPORT	FREQUENCY
NA		

<b>(37)EMISSION INFORMATION</b>											
REGULATED AIR POLLUTANT		<input type="checkbox"/> <sup>1</sup> ACTUAL EMISSION RATE <input type="checkbox"/> <sup>1</sup> UNCONTROLLED EMISSION RATE					ALLOWABLE BY RULE EMISSION RATE			<sup>2</sup> PERMITTED EMISSION RATE	
		LBS PER HOUR (LBS/HR)	TONS PER YEAR (TONS/YR)	<sup>3</sup> OTHER TERMS	<sup>3</sup> OTHER TERMS	<sup>4</sup> DM	<sup>5</sup> RATE (UNITS)	APPLICABLE RULES	TONS PER YEAR (TONS/YR)	RATE (UNITS)	TONS PER YEAR (TONS/YR)
CARBON MONOXIDE (CO)	MAXIMUM:	See	Attached				( )				
	TYPICAL:						( )				
LEAD	MAXIMUM:						( )				
	TYPICAL:						( )				
NITROGEN OXIDES (NOx)	MAXIMUM:						( )				
	TYPICAL:						( )				
PARTICULATE MATTER (PART)	MAXIMUM:						( )				
	TYPICAL:						( )				
PARTICULATE MATTER <= 10 MICROMETERS (PM10)	MAXIMUM:						( )				
	TYPICAL:						( )				
SULFUR DIOXIDE (SO2)	MAXIMUM:						( )				
	TYPICAL:						( )				
VOLATILE ORGANIC MATERIAL (VOM)	MAXIMUM:						( )				
	TYPICAL:						( )				
OTHER, SPECIFY:	MAXIMUM:						( )				
	TYPICAL:						( )				
EXAMPLE: PARTICULATE MATTER	MAXIMUM:	5.00	21.9	0.3 GR/DSCF		1	6.0 (LBS/HR)	212.321	26.28	5.5 LBS/HR	22
	TYPICAL:	4.00	14.4	0.24 GR/DSCF		4	5.5 (LBS/HR)	212.321	19.80		

**IMPORTANT: ATTACH CALCULATIONS, TO THE EXTENT THEY ARE AIR EMISSIONS RELATED, ON WHICH EMISSIONS WERE DETERMINED AND LABEL AS EXHIBIT 220-5.**

<sup>1</sup>CHECK UNCONTROLLED EMISSION RATE BOX IF CONTROL EQUIPMENT IS USED, OTHERWISE CHECK AND PROVIDE THE ACTUAL EMISSION RATE TO ATMOSPHERE, INCLUDING INDOORS. SEE INSTRUCTIONS.

<sup>2</sup>PROVIDE THE EMISSION RATE THAT WILL BE USED AS A PERMIT SPECIAL CONDITION. THIS LIMIT WILL BE USED TO DETERMINE THE PERMIT FEE.

<sup>3</sup>PLEASE PROVIDE ANY OTHER EMISSION RATE WHICH IS COMMONLY USED, REQUIRED BY A SPECIFIC LIMITATION OR THAT WAS MEASURED (E.G. PPM, GR/DSCF, ETC.)

<sup>4</sup>DM - DETERMINATION METHOD: 1) STACK TEST, 2) MATERIAL BALANCE, 3) STANDARD EMISSION FACTOR (AP-42 OR AIRS), 4) ENGINEERING ESTIMATE, 5) SPECIAL EMISSION FACTOR (NOT AP-42 OR AIRS)

<sup>5</sup>RATE - ALLOWABLE EMISSION RATE SPECIFIED BY MOST STRINGENT APPLICABLE RULE.

**APPLICATION PAGE \_\_\_\_\_**

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**(38) HAZARDOUS AIR POLLUTANT EMISSION INFORMATION**

		<input type="checkbox"/> <sup>1</sup> ACTUAL EMISSION RATE <input type="checkbox"/> <sup>1</sup> UNCONTROLLED EMISSION RATE				ALLOWABLE BY RULE	
		POUNDS PER HOUR (LBS/HR)	TONS PER YEAR (TONS/YR)	<sup>3</sup> OTHER TERMS	<sup>4</sup> DM	<sup>5</sup> RATE OR STANDARD	APPLICABLE RULE
NAME OF HAP EMITTED	<sup>2</sup> CAS NUMBER						
See Attached		MAXIMUM:					
		TYPICAL:					
		MAXIMUM:					
		TYPICAL:					
		MAXIMUM:					
		TYPICAL:					
		MAXIMUM:					
		TYPICAL:					
		MAXIMUM:					
		TYPICAL:					
		MAXIMUM:					
		TYPICAL:					
		MAXIMUM:					
		TYPICAL:					
<i>EXAMPLE:</i>		MAXIMUM:	10.0	1.2		2	
<i>Benzene</i>	71432	TYPICAL:	8.0	0.8		2	
							98% by wt control device leak-tight trucks
							CFR 61 61.302(b),(d)

**IMPORTANT: ATTACH CALCULATIONS, TO THE EXTENT THEY ARE AIR EMISSIONS RELATED, ON WHICH EMISSIONS WERE DETERMINED AND LABEL AS EXHIBIT 220-6.**

<sup>1</sup>PROVIDE UNCONTROLLED EMISSIONS IF CONTROL EQUIPMENT IS USED. OTHERWISE, PROVIDE ACTUAL EMISSIONS TO THE ATMOSPHERE, INCLUDING INDOORS. CHECK BOX TO SPECIFY.

<sup>2</sup>CAS - CHEMICAL ABSTRACT SERVICE NUMBER.

<sup>3</sup>PLEASE PROVIDE ANY OTHER EMISSION RATE WHICH IS COMMONLY USED, REQUIRED BY A SPECIFIC LIMITATION OR THAT WAS MEASURED (E.G., PPM, GR/DSCF, ETC.).

<sup>4</sup>DM - DETERMINATION METHOD: 1) STACK TEST, 2) MATERIAL BALANCE, 3) STANDARD EMISSION FACTOR (AP-42 OR AIRS), 4) ENGINEERING ESTIMATE, 5) SPECIAL EMISSION FACTOR (NOT AP-42 OR AIRS).

<sup>5</sup>RATE - ALLOWABLE EMISSION RATE OR STANDARD SPECIFIED BY MOST STRINGENT APPLICABLE RULE.

<b>EXHAUST POINT INFORMATION</b>		
THIS SECTION SHOULD NOT BE COMPLETED IF EMISSIONS ARE EXHAUSTED THROUGH AIR POLLUTION CONTROL EQUIPMENT.		
39) FLOW DIAGRAM DESIGNATION OF EXHAUST POINT: CD-3, 4, 5, 6, 7 & 8		
40) DESCRIPTION OF EXHAUST POINT (STACK, VENT, ROOF MONITOR, INDOORS, ETC.). IF THE EXHAUST POINT DISCHARGES INDOORS, DO NOT COMPLETE THE REMAINING ITEMS. Fugitive		
41) DISTANCE TO NEAREST PLANT BOUNDARY FROM EXHAUST POINT DISCHARGE (FT): TBD		
42) DISCHARGE HEIGHT ABOVE GRADE (FT): TBD		
43) GOOD ENGINEERING PRACTICE (GEP) HEIGHT, IF KNOWN (FT): Unknown		
44) DIAMETER OF EXHAUST POINT (FT): NOTE: FOR A NON CIRCULAR EXHAUST POINT, THE DIAMETER IS 1.128 TIMES THE SQUARE ROOT OF THE AREA. NA		
45) EXIT GAS FLOW RATE NA	a) MAXIMUM (ACFM): NA	b) TYPICAL (ACFM): NA
46) EXIT GAS TEMPERATURE 250	a) MAXIMUM (°F): 250-300	b) TYPICAL (°F): 250
47) DIRECTION OF EXHAUST (VERTICAL, LATERAL, DOWNWARD): NA		
48) LIST ALL EMISSION UNITS AND CONTROL DEVICES SERVED BY THIS EXHAUST POINT:		
NAME		FLOW DIAGRAM DESIGNATION
a)	CD-3, 4, 5, 6, 7 & 8 Bean Drying	
b)		
c)		
d)		
e)		
THE FOLLOWING INFORMATION NEED ONLY BE SUPPLIED IF READILY AVAILABLE.		
49a) LATITUDE:		b) LONGITUDE:
50) UTM ZONE:	b) UTM VERTICAL (KM):	c) UTM HORIZONTAL (KM):

COMPLETENESS REVIEW WORKSHEET  
FOR CONSTRUCTION PERMIT FEES

R000038

FACILITY: <u>BUNGE</u> ID NO.: <u>003005AA1</u> APPLICATION NO.: <u>22110001</u> DATE REC'D: <u>11/03/22</u> ANALYST: <u>Daniel</u>	IDENTIFICATION OF REVIEW NUMBER (CIRCLE): <u>①</u> 2 3 4 5 6 7 8 <input checked="" type="checkbox"/> INITIAL COMPLETENESS REVIEW <input type="checkbox"/> SUPPLEMENTAL SUBMITTAL (DATE): ___/___/___ <input type="checkbox"/> OTHER TRIGGER (DESCRIBE): _____
--	---

TYPE OF SOURCE		
<input checked="" type="checkbox"/> MAJOR	<input type="checkbox"/> SYNTHETIC MINOR HAVE FESOP? <input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> NON-MAJOR

COMPLETENESS REVIEW FOR TECHNICAL INFORMATION	
<input type="checkbox"/> INCOMPLETE (DESCRIBE): _____  ACTION TO BE TAKEN <input type="checkbox"/> CALL <input type="checkbox"/> REQUEST ADDITIONAL INFORMATION <input type="checkbox"/> REJECT <input type="checkbox"/> DENY ACTION COMPLETED: ___/___/___    "DAY": _____	<input checked="" type="checkbox"/> APPLICATION COMPLETE

COMPLETENESS REVIEW FOR FEES													
<input type="checkbox"/> INADEQUATE <input type="checkbox"/> UNCERTAIN  ACTION TO BE TAKEN <input type="checkbox"/> CONTINUE WITH TECHNICAL REVIEW <input type="checkbox"/> REQUEST TECHNICAL INFO (SEE ABOVE) <input type="checkbox"/> REQUEST TECHNICAL INFO & UPDATED FEE INFO (SEE ABOVE) <input type="checkbox"/> BILL & CONTINUE WITH TECHNICAL REVIEW <input type="checkbox"/> BILL & NO TECHNICAL REVIEW (EXPLAIN): _____	<input checked="" type="checkbox"/> CORRECT <input type="checkbox"/> OVERPAID (DESCRIBE): _____  <table style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">BILL AMOUNT</th> </tr> <tr> <th style="width:70%; text-align: center;">REASON</th> <th style="width:30%; text-align: center;">AMOUNT</th> </tr> <tr> <td>1. _____</td> <td style="text-align: right;">\$ _____</td> </tr> <tr> <td>2. _____</td> <td style="text-align: right;">\$ _____</td> </tr> <tr> <td>3. _____</td> <td style="text-align: right;">\$ _____</td> </tr> <tr> <td colspan="2" style="text-align: right;">TOTAL: \$ _____</td> </tr> </table> BILL DATE: ___/___/___    "DAY": _____	BILL AMOUNT		REASON	AMOUNT	1. _____	\$ _____	2. _____	\$ _____	3. _____	\$ _____	TOTAL: \$ _____	
BILL AMOUNT													
REASON	AMOUNT												
1. _____	\$ _____												
2. _____	\$ _____												
3. _____	\$ _____												
TOTAL: \$ _____													

INITIALS	
ANALYST: <u>DBR</u> DATE: ___/___/___	COMMENTS: <u>SEE NOTES</u>
REVIEW: _____    DATE: ___/___/___	COMMENTS: _____

NOTES: BUNGE REQUESTED EXPEDITED REVIEW OF THIS APPLICATION.  
BUNGE INCLUDED A CHECK FOR \$40K WITH ITS APPLICATION.  
THIS REPRESENTS THE EXPEDITED FEE.  
THE "BASE" FEE FOR THIS APP IS \$10K (MAX FEES FOR NEW UNITS)  
BUNGE PROVIDED THE \$10K BASE FEE WITH ITS EXPEDITED AGREEMENT  
 ↑  
 SIGNED

**Schnepp, Jason**

---

**From:** Walton, Marlisha M.  
**Sent:** Thursday, November 3, 2022 11:14 AM  
**To:** Schnepp, Jason  
**Cc:** Nation, Trent; Rothenberg, Marcus A.  
**Subject:** New Expedited Construction  
**Attachments:** 003005AAI.pdf Request for Review Jason - Bunge North America Inc 003005AAI  
 22110001.docx

Not printed as this is a scan of the app received 11-03-2022. JMS

Bunge North America Inc  
003005AAI  
22110001

*Office Coordinator  
Illinois Environmental Protection Agency  
Bureau of Air*

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## Request for Expedited Review

Provide the following information and return the file to Marlisha ASAP.  
Thank you

Company	Bunge North America Inc
ID Number	003005AAI
Permit Number	22110001
Analyst?	
How much OT? (total for both analyst and supervisor)	
Application Received	11-03-22
Standard Fee?	
When can we issue?	
EJ?	
Public notice required?	
Fugitive Dust Plan required?	
Modeling required?	
Short Project Description for Contract:	
Longer Memo Description	

**Rowell, Daniel**

---

**From:** Rowell, Daniel  
**Sent:** Friday, November 4, 2022 9:12 AM  
**To:** Walton, Marlisha M.  
**Cc:** Schnepf, Jason  
**Subject:** Bunge (22110001)

Marlisha-

Has the check for construction permit application 22110001 for Bunge (003005AAI) been processed by Fiscal? The check number is 1800000103 and is in the amount of \$40,000.

If this check has not yet been processed, can we ask Fiscal to wait to process it? There may be issues with this application that I want to discuss with Jason before that check gets processed.

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Daniel

**Schnepp, Jason**

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**Rowell, Daniel**

---

**From:** Rowell, Daniel  
**Sent:** Friday, November 4, 2022 10:58 AM  
**To:** Smet, Robert  
**Subject:** Peer review

Bob-

Could you review the draft document and application in the folder below?

[N:\BOA\share\New Applications\Bunge North America \(Cairo\)](N:\BOA\share\New Applications\Bunge North America (Cairo))

Thanks!  
Daniel

**Rowell, Daniel**

---

**From:** Smet, Robert  
**Sent:** Friday, November 4, 2022 11:00 AM  
**To:** Rowell, Daniel  
**Subject:** RE: Peer review

I have a call now from 11 to 12 but after lunch I should be able to get back to you.

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Friday, November 4, 2022 10:58 AM  
**To:** Smet, Robert <Robert.Smet@Illinois.gov>  
**Subject:** Peer review

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N:\BOA\share\New Applications\Bunge North America (Cairo)

Thanks!  
Daniel

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**Rowell, Daniel**

---

**From:** Smet, Robert  
**Sent:** Friday, November 4, 2022 1:06 PM  
**To:** Rowell, Daniel  
**Subject:** RE: Peer review  
**Attachments:** BungeBob,NA-NOI-DRAFT.110422.doc

IMO, you covered all the key areas. I only proposed minor (optional in some cases) changes.

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Friday, November 4, 2022 10:58 AM  
**To:** Smet, Robert <Robert.Smet@Illinois.gov>  
**Subject:** Peer review

Bob-

Could you review the draft document and application in the folder below?

N:\BOA\share\New Applications\Bunge North America (Cairo)

Thanks!  
Daniel

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217/785-1705

## NOTICE OF INCOMPLETENESS

Bunge North America, Inc  
 Attn: Christopher Cunningham, Plant Manager  
 203 34<sup>th</sup> Street  
 Cairo, Illinois 62914

Application No.: 22110001  
Source ID. No.: 003005AAI  
Received: November 3, 2022  
Construction of: Grain Cleaning and Drying Equipment  
Location: 203 34<sup>th</sup> Street, Cairo, Alexander County

The Illinois EPA has determined the above referenced construction permit application(s) to be incomplete because information was not provided as required by 35 IAC 201.152 and Section 39(a) of the Illinois Environmental Protection Act (Act). Specifically, the following information must be provided in order for the application to be considered complete:

1. The application must address applicability of Illinois' rules for Prevention of Significant Deterioration, 35 IAC Part 204. In this regard, the application does not demonstrate that the project would not be a major modification at a major source of emissions for purposes of PSD.
  - ~~a.~~ Bunge is proposing to replace the existing grain cleaning and drying units with like-kind replacements. For purposes of evaluating whether this project represents a major modification for purposes of PSD, the application must include information for the increases in emissions of particulate matter (PM), as PM, PM<sub>10</sub> and PM<sub>2.5</sub>, nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO) and sulfur dioxide (SO<sub>2</sub>) from the grain cleaning and drying units. In this regard, for each pollutant, the application must include the following data, accompanied by supporting information (e.g., operating data and emission factors with supporting documentation) and sample calculations.
    - ~~ai.~~ Baseline actual emissions, as defined by 35 IAC 204.240, of the existing grain cleaning and drying units. In this regard, the application submitted by Bunge incorrectly uses information for the potential emissions of the existing grain cleaning and drying units to evaluate whether a major modification at a major source is occurring.
    - ~~bi.~~ The increases in emissions with this project determined as the difference between the baseline actual emissions of the existing grain cleaning and drying units and potential emissions of the proposed grain cleaning and drying units.
    - ~~ciii.~~ If the application will rely on the demand growth exclusion for a unit, data and information related to reliance on the demand growth exclusion. In particular, as generally provided by 35 IAC 204.600(b)(3), if there is an increase in emissions of a pollutant from the grain cleaning and/or

drying units, the demand growth exclusion may be relied upon to show that some or all emission increases, as determined above, would be unrelated to the project. This information would need to provide the basis for the amount of emissions that is proposed to be excluded, with sample calculations.

044. If the application will rely on the demand growth exclusion for any units, as addressed above, data for the adjusted increases in emissions from these units, calculated by subtracting the amount of the demand growth exclusion, as addressed in Item ~~1(a)-(iii)~~(c), from the increases in emissions determined in accordance with Item 1(b)(ii).

2. As the application indicates that Bunge will replace the existing grain cleaning and drying units with like-kind replacements, the application must include information that clearly demonstrates the proposed grain cleaning and drying units will each qualify as a "replacement unit," as defined by 35 IAC 204.620. In order to be considered a "replacement unit," all of the criteria at 35 IAC 204.620 must be met. In particular, as generally provided by 35 IAC 204.620(c)(2), the basic design parameter or parameters for any process unit that is not at a steam electric generating facility are maximum rate of fuel input or heat input, maximum rate of material input or maximum rate of product output.

- a. For the grain cleaning unit, Bunge must demonstrate that the basic design parameters of the grain cleaning unit are not being altered. In its application, Bunge indicates that the maximum grain cleaning capacities of the existing and proposed grain cleaners are 432 tons/hour and 250 tons/hour, respectively. It is apparent that the basic design parameters of the grain cleaning unit are being altered, notwithstanding the reduced processing capacity of the proposed grain cleaning unit. In its application, Bunge indicates that the existing and proposed grain cleaning unit is and will continue to be bottlenecked to a material input rate of 164.5 tons/hour by downstream process units. A bottlenecked production rate is not representative of a basic design parameter. Accordingly, based on the information provided by Bunge, the new grain cleaning units cannot be addressed as replacement units for purposes of determining applicability of PSD to this project.
- b. For the grain drying units, Bunge must demonstrate that the basic design parameters of the grain dryers are not being altered. In its application, Bunge indicates that two existing grain dryers with a combined grain drying capacity of 250 tons/hour and combined natural gas firing rate of 0.055 million cubic feet per hour (equivalent to 481.8 million cubic feet per year) will be replaced with six grain dryers that have a combined grain drying capacity of 303.6 tons/hour and combined natural gas firing rate of 0.067 million cubic feet per hour (equivalent to 586.9 million cubic feet per year). It is apparent that the basic design parameters of the grain drying units are being altered. Similar to the grain cleaning unit, Bunge indicated in its application that the existing and proposed grain dryers are and will continue

Commented [SR1]: There was no (b) so if correct, this should be updated.



to be bottlenecked by downstream process units to a material input rate of 164.5 tons/year. As addressed above, a bottlenecked production rate is not representative of a basic design parameter. Accordingly, based on the information provided by Bunge, the new grain dryers cannot be addressed as replacement units for purposes of determining applicability of PSD to this project.

c. If additional information is provided for the new grain cleaning and drying units and it does not show that these units should be addressed as replacement units when evaluating applicability of PSD, the application would not appropriately address these units because the application does not address these units as new emission units.

**Commented [SR2]:** This (c) is a bit confusing. May want to reword to clarify...

d. Alternatively, if the additional information that is provided demonstrates that the new grain cleaning and drying units should be addressed as replacements unit for purposes of PSD, the application does not include the following supporting information related to the proposed adjustments to the calculation of the increase in emissions of the grain cleaning and drying units.

i. Supporting information for the emissions that are proposed to be excluded due to the so-called "demand growth exclusion" to show that those emissions are unrelated to this project. In this regard, 35 IAC 204.600(b)(3) provides that emissions may only be excluded to the extent that they are unrelated to the particular project. The application does not include this information.

**Commented [SR3]:** May want to swap (ii) with (i) here. If you do, you should mention 204.600(b)(3).

ii. Supporting information for the "could have accommodated" emissions or the data that was provided for the emissions that the grain cleaning and drying units could have accommodated during the selected baseline period, including sample calculations.

e. The application does not include the following supporting information for the data provided for the baseline actual emissions of the grain cleaning and drying units. It should be noted that this information would be relevant even if the new grain cleaning and drying units are not replacement units if applicability of PSD would now be addressed by either project emissions accounting or netting.

i. The monthly amounts of grain processed by the existing cleaning and drying units for the last ten years.

ii. The emission factors used to determine the baseline emissions of the cleaning and drying units, with explanation and justification, accompanied by sample calculations.

f. If the additional information that is provided ~~does not demonstrate~~ demonstrates that the project is ~~not~~ subject to PSD for a regulated NSR pollutant, with the increase in emissions from the project continuing to be greater than the significant emissions increase, as defined by 35

Page 4

IAC 204.670, the application must include information addressing the applicable requirements of the PSD rules for emissions of that pollutant, including:

- a. A demonstration of Best Available Control Technology (BACT) for the pollutant for new grain cleaning and/or drying units, with proposed BACT limits prepared consistent with USEPA's guidance for BACT determination, accompanied by supporting documentation.
- b. An analysis of air quality impacts accompanying the project, using appropriate modeling and analysis.
- c. An analysis of the impacts of the project on visibility, vegetations and soils.

The Illinois EPA will be pleased to review an application for this project that includes the necessary information and documentation to respond to the deficiencies identified above. The reapplication will be considered filed on the date it is received by the Illinois EPA and will constitute a new permit application for purposes of Section 39(a) of the Act. Two copies of this information must be submitted and should reference the application and I.D. numbers assigned above.

If you have any questions on this matter, please contact Daniel Rowell at 217/558-4368.

William D. Marr  
Manager, Permit Section  
Bureau of Air

WDM:DBR:

**Rowell, Daniel**

---

**From:** Walton, Marlisha M.  
**Sent:** Wednesday, November 9, 2022 2:28 PM  
**To:** Rowell, Daniel  
**Subject:** FW: Bunge (22110001)

**From:** Li, Cecilia <Cecilia.Li@Illinois.gov>  
**Sent:** Wednesday, November 9, 2022 2:26 PM  
**To:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>  
**Cc:** Kindlon, Ai <Ai.Kindlon@illinois.gov>; Suthar, Anil <Anil.Suthar@Illinois.gov>  
**Subject:** RE: Bunge (22110001)

Hi Marlisha,

We don't have this check in fiscal. Has it been delivered to us yet?

Thanks,

Cecilia

**From:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>  
**Sent:** Wednesday, November 9, 2022 2:03 PM  
**To:** Kindlon, Ai <Ai.Kindlon@illinois.gov>; Suthar, Anil <Anil.Suthar@Illinois.gov>; Li, Cecilia <Cecilia.Li@Illinois.gov>  
**Subject:** FW: Bunge (22110001)

Good Afternoon,

Do you know if we have the check information below.

-Marlisha

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Friday, November 4, 2022 9:12 AM  
**To:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>  
**Cc:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Subject:** Bunge (22110001)

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Daniel

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**Rowell, Daniel**

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**From:** Rowell, Daniel  
**Sent:** Wednesday, November 9, 2022 2:37 PM  
**To:** Li, Cecilia  
**Cc:** Walton, Marlisha M.  
**Subject:** RE: Bunge (22110001)

I took a closer look at the application I am trying to find the check for.

Has fiscal received or processed check #1800000105 from Total Grain Marketing LLC in the amount of \$40,000?

Thanks-  
Daniel

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**Sent:** Wednesday, November 9, 2022 2:28 PM  
**To:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Subject:** FW: Bunge (22110001)

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**To:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>  
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**Cc:** Schnepf, Jason <[Jason.Schnepf@Illinois.gov](mailto:Jason.Schnepf@Illinois.gov)>  
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**Rowell, Daniel**

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**From:** Li, Cecilia  
**Sent:** Wednesday, November 9, 2022 2:48 PM  
**To:** Rowell, Daniel  
**Cc:** Walton, Marlisha M.  
**Subject:** RE: Bunge (22110001)

Yes, this check no. 1800000105 (Amount:\$40,000) has been deposited to account 003005AAI on 11/03/2022. The payer is 1391 TIMBERLAKE MANOR PARKWAY.

On the same day, we also received one check no.500006713 (amount: \$500) from Toral Grain Marketing LLC, it has been deposited to account 079030AAA.

Thank you,

Cecilia

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Wednesday, November 9, 2022 2:37 PM  
**To:** Li, Cecilia <Cecilia.Li@Illinois.gov>  
**Cc:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>  
**Subject:** RE: Bunge (22110001)

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**To:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
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**Cc:** Schnepf, Jason <[Jason.Schnepf@Illinois.gov](mailto:Jason.Schnepf@Illinois.gov)>  
**Subject:** Bunge (22110001)

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**Rowell, Daniel**

---

**From:** Rowell, Daniel  
**Sent:** Thursday, November 10, 2022 3:36 PM  
**To:** james.burris@bunge.com  
**Cc:** Schnepf, Jason  
**Subject:** Comments and Questions on Cairo Grain Cleaning and Drying Project  
**Attachments:** Bunge.NA-Questions.Comments-111022.doc

Good afternoon James,

Bunge's construction permit application submitted for the proposed grain cleaning and drying units at Bunge's Cairo facility was received November 3. I have reviewed the application and prepared and attached to this email a document detailing initial comments and questions that I have on the application.

If Bunge has questions during its review of my comments and questions, please contact me. It would be beneficial to have a follow up call once Bunge has reviewed my comments and questions. Please provide times that Bunge is available and I will make arrangements for a call.

Thank you,

Daniel Rowell, P.E.

**ILLINOIS EPA**

Technical Expert, Construction Unit  
Bureau of Air  
1021 North Grand Avenue East  
Springfield, Illinois 62794

Ph: 217-558-4368

November 10, 2022

Comments and Questions on Bunge's Construction Permit Application for  
Replacement of Grain Cleaning and Drying Equipment

1. The application does not address applicability of Illinois' rules for Prevention of Significant Deterioration (PSD), 35 IAC Part 204.
  - a. The application indicates that the grain cleaning and drying equipment will be replaced with like-kind equipment. "Replacement unit" is defined in Illinois' PSD rules at 35 IAC 204.620. For the grain cleaning and drying equipment to be considered replacement units for purposes of determining applicability of PSD to this project, all of the criteria at 35 IAC 204.620(a), (b), (c) and (d) must be met. In particular, as generally provided by 35 IAC 204.620(c)(2), the basic design parameter or parameters for any process unit that is not at a steam electric generating facility are maximum rate of fuel input or heat input, maximum rate of material input or maximum rate of product output.
    - i. Based on the information provided in the application for the grain cleaning units, the maximum rate of material input, i.e., grain input, of the existing and proposed units are 432 tons/hour and 250 tons/hour, respectively. In this regard, it is apparent that a basic design parameter of the grain cleaning unit is being altered and the proposed grain cleaning unit may not be able to be addressed as a replacement unit for purposes of determining applicability of PSD to this project.
    - ii. Similar to the grain cleaning units, information provided in the application for the grain drying units suggests that the basic design parameters for the grain dryers is being altered. In particular, the maximum rates for material and fuel input appear to be altered. As presented in the application, the two existing grain dryers have a combined maximum grain drying capacity of 250 tons/hour and combined maximum fuel input rate of 0.055 million cubic feet per hour (mmscf/hr). The application proposes that these two dryers will be replaced with six grain dryers with a combined maximum drying capacity of 303.6 tons/hour and combined maximum fuel input of 0.067 mmscf/hr. Similar to the grain cleaning unit, it is apparent two basic design parameters of the grain drying units are being altered and the proposed grain dryers may not be able to be addressed as replacement units for purposes of determining applicability of PSD to this project.
    - iii. The application indicates that the existing and new grain cleaning and drying units are and will continue to be bottlenecked by downstream processes. Based on of the definition of "replacement unit" and the criteria for qualification as a replacement unit at 35 IAC 204.620, a bottlenecked rate of material input may not constitute a

basic design parameter of the grain cleaning and drying units.

- b. In the application, the emissions increase for this project was evaluated by comparing the potential emissions of the existing grain cleaning and drying units against the potential to emit of the proposed grain cleaning and drying units. This evaluation is inconsistent with relevant USEPA guidance and Illinois' PSD rules.

For purposes of evaluating whether this project represents a major modification for purposes of PSD, the application must include the information for the baseline actual emissions, as defined by 35 IAC 204.240(b), of particulate matter (PM), PM<sub>10</sub>, PM<sub>2.5</sub>, nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>) and hazardous air pollutants (HAPs) of the existing grain cleaning and drying units. For each pollutant, the application must include supporting information, such as operating data, emission factors and sample calculations.

As generally provided by 35 IAC 204.240(b), the baseline actual emissions are the average rate, in tons/year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 10 year period immediately preceding the date actual construction begins on the project, or the date a complete application is received for the project. In this regard, an applicant is not required to select the same baseline period for each pollutant. For example, Bunge may determine that a baseline period of January 2019 through January 2021 is representative for emissions of PM of the existing grain cleaning unit; a baseline period of March 2017 through March 2019 may be representative for emissions of NO<sub>x</sub> for combustion of fuel in the burners of the existing grain dryers.

- c. The application must include an evaluation of the increases in emissions with this project, determined as the difference between the baseline actual emissions of the existing grain cleaning and drying units and the "potential to emit," as defined by 35 IAC 204.560, of the proposed grain cleaning and drying units. This evaluation may include, but is not limited to, assumptions made for the control efficiency(ies) of baghouses controlling the grain cleaning unit.

Bunge's Cairo facility is a major source for purposes of PSD. This is because its potential emissions of HAPs are greater than 10 tons/year for an individual HAP, i.e., hexane. For purposes of determining whether this project represents a major modification of a major source, the difference between the baseline actual emissions and potential to emit of the proposed and existing grain cleaning and drying units must be compared against the "significant" emission rates at 35 IAC 204.660. A major modification is a significant increase in emissions, as shown below.

Pollutant (tons/year)					
PM	PM <sub>10</sub>	PM <sub>2.5</sub>	NOx	CO	SO <sub>2</sub>
25	15	10	40	100	40

d. Other items Bunge may consider in its evaluation of applicability of PSD to this project include:

- i. Demand growth exclusion. As generally provided by 35 IAC 204.600(b)(3), if there is an increase in emissions of a pollutant from the grain cleaning and/or drying units, the demand growth exclusion may be relied upon to show that some or all emission increases, as determined above, would be unrelated to the project. This information would need to provide the basis for the amount of emissions that is proposed to be excluded, with sample calculations.

If the application will rely on the demand growth exclusion for any units, as addressed above, data for the adjusted increases in emissions from these units, calculated by subtracting the amount of the demand growth exclusion, as addressed by 35 IAC 204.600(b)(3), from the increases in emissions determined in accordance with Item 1(c).

- ii. Supporting information for the "could have accommodated" emissions or the data that was provided for the emissions that the grain cleaning and drying units could have accommodated during the selected baseline period, including sample calculations. In this regard, 35 IAC 204.600(b)(3) generally provides that the portion of the unit's emissions following the project that an existing unit, such as the grain cleaning and/or drying units, could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions, as defined at 35 IAC 204.240.

2. The proposed grain dryers, by themselves, appear to represent a major modification of a major source.

- a. Based on information in the application, the emissions of the proposed grain drying units would be uncontrolled.<sup>1</sup> The potential to emit of the proposed grain dryers, as shown in the application are as follows.

Pollutant (tons/year)					
PM	PM <sub>10</sub>	PM <sub>2.5</sub>	NOx	CO	SO <sub>2</sub>
60.4	31.7	5.39	15.9	13.4	0.1

By themselves and in absence of information for baseline actual emissions of the existing grain dryers, the proposed grain dryers appear to represent a major modification of a major source. This

<sup>1</sup> The current Clean Air Act Permit Program (CAAPP) Permit issued to Bunge, Permit 96030140, indicates the grain dryers are presently uncontrolled.

is because the increases in PM, PM<sub>10</sub> and PM<sub>2.5</sub> are in excess of the major modification emission rates for PM, PM<sub>10</sub> and PM<sub>2.5</sub>, 25, 15 and 10 tons/year, respectively.

- b. If, after comparing the baseline actual emissions of the existing grain dryers to the potential emissions of the proposed grain dryers, the increases are still greater than the significant emission rates listed at 35 IAC 204.660 (and restated in Item 1(c)), then this project will be considered a major modification of a major source.
- c. If it is determined that this project is a major modification of a major source, Bunge must address the substantive requirements of Illinois' rules for PSD, including:
  - i. A demonstration of Best Available Control Technology (BACT) for each pollutant for the new, and if applicable, modified, emission units, with proposed BACT limits prepared consistent with USEPA's guidance for BACT determination, accompanied by supporting documentation. For this purpose, a demonstration of BACT must address the new grain cleaning unit and new grain dryers.
  - ii. An analysis of air quality impacts accompanying the project, using appropriate modeling and analysis.
  - iii. An analysis of the impacts of the project on visibility, vegetations and soils.
- d. If the project is a major modification subject to the substantive requirements of PSD, then this application for construction permit would be subject to additional fees under Section 9.12 of the Illinois Environmental Protection Act. In particular, an additional \$6,000 would be due to address additional supplemental fees for projects subject to PSD review.<sup>2</sup>

The additional payment and a corrected Form 197-FEE, "Fee Determination for Construction Permit Application," signed by a responsible official, should accompany other information submitted to the Illinois EPA in response to this information request.

3. Alternatively, Bunge may propose enforceable limits on the operation and emissions of the proposed grain cleaning and/or drying units such that the increase in emissions of PM, PM<sub>10</sub> and PM<sub>2.5</sub>, when comparing the baseline actual emissions of these pollutants against the potential emissions of the existing and proposed units, would be less than the significant emission rates for PM, PM<sub>10</sub> and PM<sub>2.5</sub> under Illinois' PSD rules.
4. Current information available on Illinois EPA's EJStart mapping tool indicates that Bunge's Cairo facility is located in an area that has

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<sup>2</sup> See Item 23 on the 197-FEE form.

been identified as an Environmental Justice (EJ) area.<sup>3</sup> With respect to EJ, how will Bunge achieve a net zero increase in permitted emissions of its Cairo facility when considering the increases in emissions with this project?

It should be noted that the evaluation of increases in permitted emissions for purposes of EJ is separate from an emissions evaluation performed to determine applicability of PSD to a project. In this regard, for purposes of EJ emissions increases from a project must be "offset" by taking a reduction in emissions at another unit or operation at a source equal to or greater than the increase in emissions from a project.

5. Confirm that the existing baghouses which control the existing grain cleaning unit would be used to control the proposed grain cleaning unit.
6. It is unclear whether emissions of boilers at Bunge's facilities are addressed.<sup>4</sup> Will there be an increase in utilization of the boilers at Bunge's facility, i.e., will there be an increase in steam demand of the grain cleaning and/or drying units that would be provided by the boilers?
  - a. If there will be an increase in utilization of the boilers, the application must include a comparison of the baseline actual emissions of the boilers and the projected actual emissions, as defined by 35 IAC 204.600, of the boilers. This evaluation must also be considered in the overall emissions increase from this project for purposes of determining applicability of PSD.
  - b. If there will not be an increase in utilization of the boilers, confirm that there will not be an increase in steam demand associated with this project.

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<sup>3</sup> As verified November 10, 2022. See also <https://illinois-epa.maps.arcgis.com/apps/webappviewer/index.html?id=9c5a017cec8149e3860f014ef7b4058e>

<sup>4</sup> As addressed on Page 1 of the application page titled "PTE Emissions Calculations."

**Rowell, Daniel**

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**From:** James Burris <James.Burris@bunge.com>  
**Sent:** Friday, November 11, 2022 11:29 AM  
**To:** Rowell, Daniel  
**Cc:** Schnepf, Jason; Michelle Bublitz  
**Subject:** [External] RE: Comments and Questions on Cairo Grain Cleaning and Drying Project

Daniel,

I received your list of comments and questions and agree a call to discuss them would be beneficial. I would be available any time on Wednesday or Thursday next week if you want to set it up.

Thank you,

**Jim Burris, PE**

Phone: 314-292-2937

Mobile: 314-308-3904

1391 Timberlake Manor Parkway  
Chesterfield, MO 63017

**BUNGE**

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Thursday, November 10, 2022 3:36 PM  
**To:** James Burris <James.Burris@bunge.com>  
**Cc:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Subject:** Comments and Questions on Cairo Grain Cleaning and Drying Project

**CAUTION: This email originated from outside of Bunge. Do not click links or open attachments unless you recognize the sender !**

Good afternoon James,

Bunge's construction permit application submitted for the proposed grain cleaning and drying units at Bunge's Cairo facility was received November 3. I have reviewed the application and prepared and attached to this email a document detailing initial comments and questions that I have on the application.

If Bunge has questions during its review of my comments and questions, please contact me. It would be beneficial to have a follow up call once Bunge has reviewed my comments and questions. Please provide times that Bunge is available and I will make arrangements for a call.

Thank you,

Daniel Rowell, P.E.

**ILLINOIS EPA**

Technical Expert, Construction Unit  
Bureau of Air  
1021 North Grand Avenue East  
Springfield, Illinois 62794

Ph: 217-558-4368

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If you are not the intended recipient, you must not use, disclose, distribute or copy any part of this message.



**Rowell, Daniel**

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**From:** Schnepf, Jason  
**Sent:** Monday, November 14, 2022 5:06 PM  
**To:** Rowell, Daniel  
**Subject:** Tentative: Bunge - Grain Cleaning and Drying Project

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**Join from a video system or application**

Dial 24643044528@illinois.webex.com

You can also dial 173.243.2.68 and enter your meeting number.

If you are a host, [click here to view host information](#).

Need help? Go to <https://help.webex.com>

**Rowell, Daniel**

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**From:** Bailey, Sabrina  
**Sent:** Thursday, November 17, 2022 9:45 AM  
**To:** Rowell, Daniel  
**Cc:** Schnepf, Jason  
**Subject:** Re: EJ Indicator Request - Bunge North America Inc  
**Attachments:** EJ Indicators Bunge North America Inc Nov 22.xlsx

Request attached.

Sabrina Bailey, PhD  
Office of Community Relations  
Illinois EPA  
(847) 294-4394  
Sabrina.Bailey@illinois.gov

---

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Thursday, November 17, 2022 8:12 AM  
**To:** Bailey, Sabrina <Sabrina.Bailey@Illinois.gov>  
**Cc:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Subject:** EJ Indicator Request - Bunge North America Inc

Sabrina-

Could you please provide EJ indicators for the following source:

Bunge North America Inc (BOA ID: 003005AAI)  
203 34<sup>th</sup> Street  
Cairo, Illinois

Thanks!

Daniel Rowell, P.E.

**ILLINOIS EPA**

Technical Expert, Construction Unit  
Bureau of Air  
1021 North Grand Avenue East  
Springfield, Illinois 62794

Ph: 217-558-4368

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error, please notify the sender immediately by return e-mail and destroy this communication and all copies thereof, including all attachments. Receipt by an unintended recipient does not waive attorney-client privilege, attorney work product privilege, or any other exemption from disclosure.

**Company**

**Bunge North America Inc**

003005AA

203 34<sup>th</sup> Street

Cairo,62914

<b>Environmental Indicators</b>	<b>Value</b>
<b>Particulate Matter (PM 2.5 in ug/m3)</b>	<b>9.16</b>
<b>Ozone (ppb)</b>	<b>44.6</b>
<b>Diesel PM (ug/m3)</b>	<b>0.199</b>
<b>Air Toxics Cancer Risk (risk per MM)</b>	<b>30</b>
<b>Air Toxics Respiratory Hazard Index</b>	<b>0.3</b>
<b>Traffic Proximity and Volume (daily traffic count/distance to road)</b>	<b>98</b>
<b>Lead Paint Indicator (% pre-1960s housing)</b>	<b>0.61</b>
<b>Superfund Proximity (site count/km distance)</b>	<b>0.03</b>
<b>RMP Proximity (facility count/km distance)</b>	<b>2.2</b>
<b>Hazardous Waste Proximity (facility count/km distance)</b>	<b>0.73</b>
<b>Underground Storage Tank Indicator</b>	<b>3.3</b>
<b>Wastewater Discharge Indicators (toxicity-weighted concentration/m distance)</b>	<b>0.021</b>



State Avg.	%ile in State	USA Avg.	%ile in USA
9.92	15	8.67	67
45.2	25	42.5	73
0.396	25	0.294	<50th
28	89	28	80-90th
0.37	45	0.36	<50th
760	24	760	33
0.4	66	0.27	80
0.095	24	0.13	28
1.2	84	0.77	91
2.7	30	2.2	50
8.6	43	3.9	69
27	49	12	75

**EJ Review Request #5087****Site/Facility Information**

Site Name: Bunge North America Inc

Site ID: 170000001343

Bureau Site ID: 003005AAI

Bureau: AIR

Address: 203 34th Street

EJ Status: 3 - EJ Area, Both Minority & Low  
Income

City/State/Zip: Cairo, Illinois 62914

Contact Name: James Burris

Contact Title:

Contact Address: 1391 Timberlake Manor Parkway

Contact City/State/Zip: Chesterfield, Missouri 63107

Phone: 314-292-2937

Email: james.burris@bunge.com

**Application Information**

Reference Number: 22110001

Activity Type: Permit

Activity Subtype: Construction

Application Scope/Description:

Bunge operates a vegetable oil extraction plant that processes grain (i.e., soybeans) into vegetable oil. Bunge is proposing to replace equipment in its grain cleaning and drying operations that has reached the end of their useful life. The new grain cleaning and drying equipment will not enable Bunge to process more grain or produce more vegetable oil. Accordingly, this project is not expected to increase emissions of the plant.

Other Relevant Information:

Request Submitted: 11/18/2022

Submitted by: Daniel.Rowell

Application Received: 11/3/2022

Decision Due: 2/1/2023

Reviewer Name: Daniel.Rowell

Review Status: Review Pending

Review Status Notes:

**Rowell, Daniel**

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**From:** DoNotReply.EJRequest@illinois.gov  
**Sent:** Friday, November 18, 2022 10:17 AM  
**To:** Rowell, Daniel; Metz, Cassandra; Frost, Brad; Pressnall, Chris; Herr, Alane; Mensah, James; Rowell, Daniel  
**Subject:** Request for EJ Review for Bunge North America Inc | 003005AAI | 22110001 | Air

A new request has been submitted to the EJ Outreach database.

Source Name: Bunge North America Inc

Activity/Subactivity Type: Permit / Construction

Decision Due Date: 02/01/2023

Reviewer - When the permit is ready to be issued, [click this link](#) to view the request. When viewing the request, click the button labeled 'Ready for issuance' to mark the record for EJ Release.

**Rowell, Daniel**

---

**From:** Schnepf, Jason  
**Sent:** Saturday, November 19, 2022 11:13 AM  
**To:** Rowell, Daniel  
**Subject:** FW: New Expedited Construction  
**Attachments:** 003005AAI.pdf; Request for Review Jason - Bunge North America Inc 003005AAI 22110001.docx

Please draft for my review.

Jason Schnepf  
Manager, CAAPP Construction Unit  
217-524-3724

**From:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>  
**Sent:** Thursday, November 3, 2022 11:14 AM  
**To:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Cc:** Nation, Trent <Trent.Nation@Illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@Illinois.gov>  
**Subject:** New Expedited Construction

**Bunge North America Inc**  
**003005AAI**  
**22110001**

*Office Coordinator*  
*Illinois Environmental Protection Agency*  
*Bureau of Air*

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## Request for Expedited Review

Provide the following information and return the file to Marlisha ASAP.

Thank you

Company	Bunge North America Inc
ID Number	003005AAI
Permit Number	22110001
Analyst?	
How much OT? (total for both analyst and supervisor)	
Application Received	11-03-22
Standard Fee?	
When can we issue?	
EJ?	
Public notice required?	
Fugitive Dust Plan required?	
Modeling required?	
Short Project Description for Contract:	
Longer Memo Description	

**Rowell, Daniel**

---

**From:** Rowell, Daniel  
**Sent:** Tuesday, November 22, 2022 11:52 AM  
**To:** Schnepf, Jason  
**Subject:** Bunge - Expedited Review Worksheet and EJ Memo  
**Attachments:** EJ Clearance Memo - Bunge NA (22110001) - 112222.docx; Request for Review -Bunge NA 21110001.docx

Attached are the EJ clearance memo and expedited review worksheet for Bunge

Thanks-  
Daniel



**Date:** November 222022

**Source:** Bunge North America Inc (I.D. No. 003005AAI)

**Location:** 203 34<sup>th</sup> Street, Cairo, Alexander County

**Project:** Installation of new grain (i.e., soybean) cleaning and drying units. This equipment will take the place of the existing grain cleaning and drying units that have reached the end of their useful life. This project will not increase emissions of the source because it will not increase the grain processing capacity of the source.<sup>1</sup> In this regard:

- The existing grain cleaning and drying units are bottlenecked by the processing capacities of downstream process units.
- The new grain cleaning and drying units will have the capacity to process more grain, but will continue to be bottlenecked by the processing capacities of downstream process units. Bunge is not proposing changes to downstream process units that would increase their capacities or other changes at its plant that would act to de-bottleneck the grain cleaning and drying units. In addition, the new grain cleaning units will be controlled by a new baghouse that will have substantially better control efficiency than the existing baghouse.<sup>2</sup>
- Bunge is accepting enforceable limits for the amount of grain processed by and natural gas usage of the new grain cleaning and drying units. These limits will be consistent with the bottlenecked grain processing capacities and natural gas usage of the existing grain cleaning and drying units.

**Public/EJ Notice:** Public notice is not required for this project. EJ notification/outreach was initiated November 18, 2022 for this project. No comments, questions, or other expressions of concern or interest have been received to date.

**Compliance History:** There are no VNs in the Compliance tracking database. There is one flag for the source listed in ICEMAN. This flag is dated May 28, 2019 and indicates that, "The Title V renewal application received 05-28-2019 may have been received late." Notwithstanding the possible late submission of a CAAPP Permit renewal application, the Permit Section determined Bunge's renewal application to be complete and took final action on this application December 16, 2019.

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<sup>1</sup> It is noteworthy that the existing grain cleaning and drying units were constructed in 1989. The proposed new grain cleaning and drying units are expected to have improved efficiencies and lower emissions.

<sup>2</sup> The existing grain dryers are uncontrolled. The new grain dryers will also be uncontrolled. As a general matter, it is technically infeasible to control emissions, specifically particulate matter, from grain dryers due to their design. However, as the new grain cleaning units will have improved cleaning efficiency (i.e., removal of foreign matter, such as dirt and twigs), it is expected that emissions of particulate matter from the new grain dryers will be substantially reduced as cleaner grain will now be dried.

## Request for Expedited Review

Provide the following information and return the file to Tracy ASAP.

Thank you

Company	Bunge North America Inc
ID Number	003005AAI
Permit Number	21110001
Analyst?	Daniel
How much OT? (total for both analyst and supervisor)	20
Application Received	11-03-2022
Standard Fee?	\$10,000
When can we issue?	12-22-2022
EJ?	Yes
Public notice required?	No
Fugitive Dust Plan required?	No
Modeling required?	No
Project Description for Memo:	Construction of new grain cleaning and drying units.
Project Description for Contract:	Construction of new grain cleaning and drying units. This equipment will take the place of existing grain cleaning and drying equipment. Emissions of particulate from the new grain cleaning units will be controlled by new baghouse.



**Rowell, Daniel**

---

**From:** Schnepf, Jason  
**Sent:** Wednesday, November 23, 2022 8:43 AM  
**To:** Armitage, Julie  
**Cc:** Marr, Bill; Rowell, Daniel  
**Subject:** EJ Release for Expedited Review of Construction Permit for Bunge  
**Attachments:** EJ Indicators Bunge North America Inc 11-17-2022.xlsx; EJ Clearance Memo - Bunge NA 22110001 - 11-23-2022.docx

Julie,

Attached are EJ indicators and a memo for a project at Bunge in Cairo. Bunge has requested expedited review of their construction application. The application is for replacement of new soybean cleaning and drying units. While the new units have larger capacity, they are bottlenecked by downstream process units so there will be no increase in permitted capacity of the plant and no increase in permitted emissions.

Public notice is not required for this project.

EJ outreach has been initiated but letters have not yet been sent.

Thanks,

Jason Schnepf  
Manager, CAAPP Construction Unit  
217-524-3724

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# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

**Date:** November 23, 2022

**Source:** Bunge North America Inc (I.D. No. 003005AAI)

**Location:** 203 34<sup>th</sup> Street, Cairo, Alexander County

**Project:** Installation of new grain (i.e., soybean) cleaning and drying units. This equipment will take the place of the existing grain cleaning and drying units that have reached the end of their useful life. This project will not increase emissions of the source because it will not increase the grain processing capacity of the source.<sup>1</sup> In this regard:

- The existing grain cleaning and drying units are bottlenecked by the processing capacities of downstream process units.
- The new grain cleaning and drying units will have the capacity to process more grain, but will continue to be bottlenecked by the processing capacities of downstream process units. Bunge is not proposing changes to downstream process units that would increase their capacities or other changes at its plant that would act to de-bottleneck the grain cleaning and drying units. In addition, the new grain cleaning units will be controlled by a new baghouse that will have substantially better control efficiency than the existing baghouse.<sup>2</sup>
- Bunge is accepting enforceable limits for the amount of grain processed by and natural gas usage of the new grain cleaning and drying units. These limits will be consistent with the bottlenecked grain processing capacities and natural gas usage of the existing grain cleaning and drying units.

**Public/EJ Notice:** Public notice is not required for this project. EJ notification/outreach was initiated November 18, 2022 for this project. No comments, questions, or other expressions of concern or interest have been received to date.

**Compliance History:** There are no pending VNs.

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<sup>1</sup> It is noteworthy that the existing grain cleaning and drying units were constructed in 1989. The proposed new grain cleaning and drying units are expected to have improved efficiencies and lower emissions.

<sup>2</sup> The existing grain dryers are uncontrolled. The new grain dryers will also be uncontrolled. As a general matter, it is technically infeasible to control emissions, specifically particulate matter, from grain dryers due to their design. However, as the new grain cleaning units will have improved cleaning efficiency (i.e., removal of foreign matter, such as dirt and twigs), it is expected that emissions of particulate matter from the new grain dryers will be substantially reduced as cleaner grain will now be dried.

**Company**

**Bunge North America Inc**

003005AA

203 34<sup>th</sup> Street

Cairo,62914

<b>Environmental Indicators</b>	<b>Value</b>
Particulate Matter (PM 2.5 in ug/m3)	9.16
Ozone (ppb)	44.6
Diesel PM (ug/m3)	0.199
Air Toxics Cancer Risk (risk per MM)	30
Air Toxics Respiratory Hazard Index	0.3
Traffic Proximity and Volume (daily traffic count/distance to road)	98
Lead Paint Indicator (% pre-1960s housing)	0.61
Superfund Proximity (site count/km distance)	0.03
RMP Proximity (facility count/km distance)	2.2
Hazardous Waste Proximity (facility count/km distance)	0.73
Underground Storage Tank Indicator	3.3
Wastewater Discharge Indicators (toxicity-weighted concentration/m distance)	0.021

State Avg.	%ile in State	USA Avg.	%ile in USA
9.92	15	8.67	67
45.2	25	42.5	73
0.396	25	0.294	<50th
28	89	28	80-90th
0.37	45	0.36	<50th
760	24	760	33
0.4	66	0.27	80
0.095	24	0.13	28
1.2	84	0.77	91
2.7	30	2.2	50
8.6	43	3.9	69
27	49	12	75

**Rowell, Daniel**

---

**From:** DoNotReply.EJRequest@illinois.gov  
**Sent:** Wednesday, November 23, 2022 1:36 PM  
**To:** Metz, Cassandra; Frost, Brad; Pressnall, Chris; Herr, Alane; Mensah, James; Rowell, Daniel  
**Subject:** Outreach Status Change for Bunge North America Inc | 003005AAI | 22110001 | Air

The EJ source (Bunge North America Inc) has moved forward in the outreach process on 11/23/2022.

The status has changed from \*Review Pending\* to \*Outreach In Progress\*.

**Rowell, Daniel**

---

**From:** Mensah, James  
**Sent:** Wednesday, November 23, 2022 1:36 PM  
**To:** Rowell, Daniel  
**Subject:** FW: Environmental Justice Notification: Bunge North America Inc, Cairo  
**Attachments:** Bunge North America Inc 003005AAI 22110001 2022.pdf

Hello Daniel,

For your record.

Regards,

**From:** Mensah, James <James.Mensah@Illinois.gov>  
**Sent:** Wednesday, November 23, 2022 1:35 PM  
**To:** Pressnall, Chris <Chris.Pressnall@Illinois.gov>; Mensah, James <James.Mensah@Illinois.gov>  
**Cc:** Lopez, Luis A. <Luis.A.Lopez@Illinois.gov>; Herr, Alane <Alane.Herr@Illinois.gov>  
**Subject:** Environmental Justice Notification: Bunge North America Inc, Cairo

Hello,

Thank you for electing to receive e-notifications.

Please find the attached Environmental Justice Notification Letter and Distribution List for **Bunge North America Inc;** Reference **#22110001**.

The facility is located at **203 34th Street in Cairo.**

Sincerely,

*James Mensah (he/him)*

Environmental Justice GPSI - Associate Director's Office  
 (217) 7858841  
[james.mensah@illinois.gov](mailto:james.mensah@illinois.gov)



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**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

November 23, 2022

Re: Bunge North America Inc (Illinois EPA BOA ID# 003005AAI)  
Construction Permit (22110001)

To Distribution List:

In accordance with the Illinois EPA's Environmental Justice Policy, the Office of Environmental Justice wants to provide you with information about a potential action. The Illinois EPA is sending this letter to notify you of an application received by the Bureau of Air (BOA).

The Illinois EPA has received an application for a Construction Permit for Bunge North America Inc located at 203 34th Street in Cairo. The application requests authorization to replace the facility's grain cleaning and drying equipment.

The application is currently under review by the BOA.

If you are receiving paper notifications and would like to sign up to receive notifications by email instead, please visit the Illinois EPA Environmental Justice webpage:

<https://www2.illinois.gov/epa/topics/environmental-justice/Pages/EJ-Notice-Sign-up.aspx>

If you have questions about the application, please contact Chris Pressnall, Environmental Justice Coordinator at (217) 524-1284, [chris.pressnall@illinois.gov](mailto:chris.pressnall@illinois.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Pressnall".

Chris Pressnall  
Environmental Justice Coordinator



**Distribution List**

Bunge North America Inc  
 State Senator Dale Fowler - State Senate District #59\*  
 State Representative Patrick Windhorst - State Representative District #118\*  
 U.S. Representative Mike Bost - U.S. Congressional District #12  
 U.S. Senator Richard J. Durbin\*  
 U.S. Senator Tammy Duckworth\*  
 City of Cairo – Thomas Simpson, Mayor  
 City of Cairo – City Council  
 Alexander County Board  
 Illinois NAACP – Teresa Haley\*  
 Illinois NAACP – Gregory Norris\*  
 American Lung Association of Illinois – Angela Tin\*  
 Respiratory Health Association - Brian P. Urbaszewski\*  
 Sierra Club – Jack Darin\*  
 Sierra Club – Christine Nannicelli\*  
 Sierra Club – Mila Marshall\*  
 Prairie Rivers Network – Elliot Brinkman\*  
 Faith in Place – Rev. Brian Sauder\*  
 Illinois Environmental Regulatory Group – Alec Davis\*  
 Chemical Industry Council of Illinois – Lisa Frede\*  
 United States EPA – Kathy Triantafillou\*  
 Illinois Environmental Protection Agency – Sabrina Bailey\*  
 Shawnee Hills & Hollers – Georgia de la Garza\*  
 Shawnee Hills & Hollers – Sabrina Hardenbergh\*  
 Illinois Environmental Council – Jennifer Walling\*  
 LVEJO – Juliana Pino\*  
 Environmental Law & Policy Center – Jeffrey Hammons\*  
 Illinois Farm Bureau – Lauren Lurkins\*  
 ComEd – Kareena Wasserman\*  
 Earthjustice – Jennifer Cassel\*  
 Earthjustice – Debbie Chizewer\*  
 Northwestern Pritzker School of Law – Nancy Loeb\*  
 Great Rivers Environmental Law Center - Sarah Rubenstein\*  
 Stericycle - Susan Olavarria\*  
 University of Illinois: Prairie Research Institute - Debra Jacobson\*  
 Illinois Attorney General's Office – Andrew Armstrong\*  
 IL Manufacturers' Association – Donovan Griffith\*  
 Council of State Governments – Midwest – Jess Lienhardt\*  
 Exxon Mobil Corporation – Brad Sims\*

**\*Receiving E-Notifications**

**Schnepp, Jason**

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**From:** Rowell, Daniel  
**Sent:** Wednesday, November 23, 2022 1:37 PM  
**To:** Schnepp, Jason  
**Subject:** FW: Outreach Status Change for Bunge North America Inc | 003005AAI | 22110001 | Air

FYI. EJ outreach for Bunge has begun

**From:** DoNotReply.EJRequest@illinois.gov <DoNotReply.EJRequest@illinois.gov>  
**Sent:** Wednesday, November 23, 2022 1:36 PM  
**To:** Metz, Cassandra <Cassandra.Metz@Illinois.gov>; Frost, Brad <Brad.Frost@Illinois.gov>; Pressnall, Chris <Chris.Pressnall@Illinois.gov>; Herr, Alane <Alane.Herr@Illinois.gov>; Mensah, James <James.Mensah@Illinois.gov>; Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Subject:** Outreach Status Change for Bunge North America Inc | 003005AAI | 22110001 | Air

The EJ source (Bunge North America Inc) has moved forward in the outreach process on 11/23/2022.

The status has changed from \*Review Pending\* to \*Outreach In Progress\*.

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**Schnepp, Jason**

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**From:** Schnepp, Jason  
**Sent:** Wednesday, November 23, 2022 1:38 PM  
**To:** Armitage, Julie  
**Subject:** FW: Outreach Status Change for Bunge North America Inc | 003005AAI | 22110001 | Air

FYI – I sent you a request for EJ release for Bunge (for expedited review). This is an update to the memo.

Thanks,

Jason Schnepp  
Manager, CAAPP Construction Unit  
217-524-3724

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Wednesday, November 23, 2022 1:37 PM  
**To:** Schnepp, Jason <Jason.Schnepp@Illinois.gov>  
**Subject:** FW: Outreach Status Change for Bunge North America Inc | 003005AAI | 22110001 | Air

FYI. EJ outreach for Bunge has begun

**From:** [DoNotReply.EJRequest@illinois.gov](mailto:DoNotReply.EJRequest@illinois.gov) <[DoNotReply.EJRequest@illinois.gov](mailto:DoNotReply.EJRequest@illinois.gov)>  
**Sent:** Wednesday, November 23, 2022 1:36 PM  
**To:** Metz, Cassandra <[Cassandra.Metz@Illinois.gov](mailto:Cassandra.Metz@Illinois.gov)>; Frost, Brad <[Brad.Frost@Illinois.gov](mailto:Brad.Frost@Illinois.gov)>; Pressnall, Chris <[Chris.Pressnall@Illinois.gov](mailto:Chris.Pressnall@Illinois.gov)>; Herr, Alane <[Alane.Herr@Illinois.gov](mailto:Alane.Herr@Illinois.gov)>; Mensah, James <[James.Mensah@Illinois.gov](mailto:James.Mensah@Illinois.gov)>; Rowell, Daniel <[Daniel.Rowell@illinois.gov](mailto:Daniel.Rowell@illinois.gov)>  
**Subject:** Outreach Status Change for Bunge North America Inc | 003005AAI | 22110001 | Air

The EJ source (Bunge North America Inc) has moved forward in the outreach process on 11/23/2022.

The status has changed from \*Review Pending\* to \*Outreach In Progress\*.

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**Schnepp, Jason**

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**From:** Marr, Bill  
**Sent:** Thursday, December 1, 2022 6:44 AM  
**To:** Schnepp, Jason; Bernoteit, Bob  
**Subject:** FW:

**From:** Armitage, Julie <Julie.Armitage@Illinois.gov>  
**Sent:** Wednesday, November 30, 2022 5:07 PM  
**To:** Marr, Bill <Bill.Marr@illinois.gov>  
**Subject:**

Bunge, elk grove data, SWD = ROLL!

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**Rowell, Daniel**

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**From:** Schnepf, Jason  
**Sent:** Thursday, December 1, 2022 7:32 AM  
**To:** Walton, Marlisha M.  
**Cc:** Nation, Trent; Rothenberg, Marcus A.; Adelman, Amy M.; Rowell, Daniel  
**Subject:** RE: New Expedited Construction  
**Attachments:** Request for Review -Bunge NA 21110001.docx

See attached worksheet.

Jason Schnepf  
Manager, CAAPP Construction Unit  
217-524-3724

**From:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>  
**Sent:** Thursday, November 3, 2022 11:14 AM  
**To:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Cc:** Nation, Trent <Trent.Nation@Illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@Illinois.gov>  
**Subject:** New Expedited Construction

**Bunge North America Inc**  
**003005AAI**  
**22110001**

*Office Coordinator*  
*Illinois Environmental Protection Agency*  
*Bureau of Air*

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## Request for Expedited Review

Provide the following information and return the file ASAP.

Thank you

Company	Bunge North America Inc
ID Number	003 005 AAI
Permit Number	21 11 0001
Analyst?	Daniel Rowell
How much OT? (total for both analyst and supervisor)	20 hours
Application Received	11-03-2022
Standard Fee?	\$10,000
When can we issue?	12-22-2022
EJ?	Yes
Public notice required?	No
Fugitive Dust Plan required?	No
Modeling required?	No
Project Description for Contract:	New Grain Cleaning and Drying Units
Project Description for Memo:	Construction of new grain cleaning and drying units. This equipment will take the place of existing grain cleaning and drying equipment. Emissions of particulate from the new grain cleaning units will be controlled by a new baghouse.

**Rowell, Daniel**

---

**From:** Rowell, Daniel  
**Sent:** Thursday, December 1, 2022 8:17 AM  
**To:** Walton, Marlisha M.  
**Cc:** Nation, Trent; Rothenberg, Marcus A.; Adelman, Amy M.; Schnepf, Jason  
**Subject:** RE: New Expedited Construction

It should be noted that Bunge has already paid us \$40,000 for this application (included with their application submittal). The standard fee for this application is \$10,000. In order to expedite, Bunge will need to pay an additional \$10,000 to expedite this application.

-Daniel

**From:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Sent:** Thursday, December 1, 2022 7:32 AM  
**To:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>  
**Cc:** Nation, Trent <Trent.Nation@Illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@Illinois.gov>; Adelman, Amy M. <Amy.M.Adelman@Illinois.gov>; Rowell, Daniel <Daniel.Rowell@Illinois.gov>  
**Subject:** RE: New Expedited Construction

See attached worksheet.

Jason Schnepf  
Manager, CAAPP Construction Unit  
217-524-3724

**From:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>  
**Sent:** Thursday, November 3, 2022 11:14 AM  
**To:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Cc:** Nation, Trent <Trent.Nation@Illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@Illinois.gov>  
**Subject:** New Expedited Construction

**Bunge North America Inc**  
**003005AAI**  
**22110001**

*Office Coordinator*  
*Illinois Environmental Protection Agency*  
*Bureau of Air*

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**Rowell, Daniel**

---

**From:** Walton, Marlisha M.  
**Sent:** Thursday, December 1, 2022 9:48 AM  
**To:** Adelman, Amy M.  
**Subject:** FW: Bunge (22110001)

I forgot about this email.

**From:** Li, Cecilia <Cecilia.Li@Illinois.gov>  
**Sent:** Wednesday, November 9, 2022 2:48 PM  
**To:** Rowell, Daniel <Daniel.Rowell@Illinois.gov>  
**Cc:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>  
**Subject:** RE: Bunge (22110001)

Yes, this check no. 1800000105 (Amount:\$40,000) has been deposited to account 003005AAI on 11/03/2022. The payer is 1391 TIMBERLAKE MANOR PARKWAY.

On the same day, we also received one check no.500006713 (amount: \$500) from Toral Grain Marketing LLC, it has been deposited to account 079030AAA.

Thank you,

Cecilia

**From:** Rowell, Daniel <Daniel.Rowell@Illinois.gov>  
**Sent:** Wednesday, November 9, 2022 2:37 PM  
**To:** Li, Cecilia <Cecilia.Li@Illinois.gov>  
**Cc:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>  
**Subject:** RE: Bunge (22110001)

I took a closer look at the application I am trying to find the check for.

Has fiscal received or processed check #1800000105 from Total Grain Marketing LLC in the amount of \$40,000?

Thanks-  
Daniel

**From:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>  
**Sent:** Wednesday, November 9, 2022 2:28 PM  
**To:** Rowell, Daniel <Daniel.Rowell@Illinois.gov>  
**Subject:** FW: Bunge (22110001)

**From:** Li, Cecilia <Cecilia.Li@Illinois.gov>  
**Sent:** Wednesday, November 9, 2022 2:26 PM  
**To:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>



**Cc:** Kindlon, Ai <[Ai.Kindlon@illinois.gov](mailto:Ai.Kindlon@illinois.gov)>; Suthar, Anil <[Anil.Suthar@Illinois.gov](mailto:Anil.Suthar@Illinois.gov)>  
**Subject:** RE: Bunge (22110001)

Hi Marlisha,

We don't have this check in fiscal. Has it been delivered to us yet?

Thanks,

Cecilia

**From:** Walton, Marlisha M. <[Marlisha.Walton@Illinois.gov](mailto:Marlisha.Walton@Illinois.gov)>  
**Sent:** Wednesday, November 9, 2022 2:03 PM  
**To:** Kindlon, Ai <[Ai.Kindlon@illinois.gov](mailto:Ai.Kindlon@illinois.gov)>; Suthar, Anil <[Anil.Suthar@Illinois.gov](mailto:Anil.Suthar@Illinois.gov)>; Li, Cecilia <[Cecilia.Li@Illinois.gov](mailto:Cecilia.Li@Illinois.gov)>  
**Subject:** FW: Bunge (22110001)

Good Afternoon,

Do you know if we have the check information below.

-Marlisha

**From:** Rowell, Daniel <[Daniel.Rowell@illinois.gov](mailto:Daniel.Rowell@illinois.gov)>  
**Sent:** Friday, November 4, 2022 9:12 AM  
**To:** Walton, Marlisha M. <[Marlisha.Walton@Illinois.gov](mailto:Marlisha.Walton@Illinois.gov)>  
**Cc:** Schnepf, Jason <[Jason.Schnepf@Illinois.gov](mailto:Jason.Schnepf@Illinois.gov)>  
**Subject:** Bunge (22110001)

Marlisha-

Has the check for construction permit application 22110001 for Bunge (003005AAI) been processed by Fiscal? The check number is 1800000103 and is in the amount of \$40,000.

If this check has not yet been processed, can we ask Fiscal to wait to process it? There may be issues with this application that I want to discuss with Jason before that check gets processed.

Thanks-  
Daniel

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**Rowell, Daniel**

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**From:** Walton, Marlisha M.  
**Sent:** Thursday, December 1, 2022 10:05 AM  
**To:** Adelman, Amy M.  
**Subject:** RE: New Expedited Construction

I believe they paid \$500 already  
 When you send the agreement to the company:

Attached is the expedited permit agreement between Bunge North America Inc and the Agency with an agreed issuance date of 12/22/22. Please have the appropriate person sign the last page and return the signed agreement to the agency address shown in Section 13. We received your expedited fee (\$40,000) on 11/03/2022 and a check for (\$500) on 11/03/22. We must receive the standard fee (\$9,500) and the signed agreement no later than 12/09/22 in order to meet the deadline. Prior to returning the documents back to the Agency, scan and email a copy of the signed agreement and check to me for our records. Also, please send a reply to ensure receipt of this email. Thank you.

**From:** Adelman, Amy M. <Amy.M.Adelman@Illinois.gov>  
**Sent:** Thursday, December 1, 2022 9:59 AM  
**To:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>  
**Subject:** RE: New Expedited Construction

With them needing to pay \$10,000 dollars, will I need to notify them or are does someone else advise them that?

Thank you,

*Amy Adelman*, Office Coordinator

IL Environmental Protection Agency, Bureau of Air  
 1021 N Grand Ave E  
 Springfield, IL 62794  
 Email: [Amy.M.Adelman@illinois.gov](mailto:Amy.M.Adelman@illinois.gov)  
 Main: (217) 785- 1705 | Direct: (217) 558- 7374



**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Thursday, December 1, 2022 8:17 AM  
**To:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>  
**Cc:** Nation, Trent <Trent.Nation@Illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@Illinois.gov>; Adelman, Amy M. <Amy.M.Adelman@Illinois.gov>; Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Subject:** RE: New Expedited Construction

It should be noted that Bunge has already paid us \$40,000 for this application (included with their application submittal). The standard fee for this application is \$10,000. In order to expedite, Bunge will need to pay an additional \$10,000 to expedite this application.

-Daniel

**From:** Schnepf, Jason <[Jason.Schnepf@Illinois.gov](mailto:Jason.Schnepf@Illinois.gov)>  
**Sent:** Thursday, December 1, 2022 7:32 AM  
**To:** Walton, Marlisha M. <[Marlisha.Walton@Illinois.gov](mailto:Marlisha.Walton@Illinois.gov)>  
**Cc:** Nation, Trent <[Trent.Nation@Illinois.gov](mailto:Trent.Nation@Illinois.gov)>; Rothenberg, Marcus A. <[Marcus.A.Rothenberg@Illinois.gov](mailto:Marcus.A.Rothenberg@Illinois.gov)>; Adelman, Amy M. <[Amy.M.Adelman@Illinois.gov](mailto:Amy.M.Adelman@Illinois.gov)>; Rowell, Daniel <[Daniel.Rowell@Illinois.gov](mailto:Daniel.Rowell@Illinois.gov)>  
**Subject:** RE: New Expedited Construction

See attached worksheet.

Jason Schnepf  
Manager, CAAPP Construction Unit  
217-524-3724

**From:** Walton, Marlisha M. <[Marlisha.Walton@Illinois.gov](mailto:Marlisha.Walton@Illinois.gov)>  
**Sent:** Thursday, November 3, 2022 11:14 AM  
**To:** Schnepf, Jason <[Jason.Schnepf@Illinois.gov](mailto:Jason.Schnepf@Illinois.gov)>  
**Cc:** Nation, Trent <[Trent.Nation@Illinois.gov](mailto:Trent.Nation@Illinois.gov)>; Rothenberg, Marcus A. <[Marcus.A.Rothenberg@Illinois.gov](mailto:Marcus.A.Rothenberg@Illinois.gov)>  
**Subject:** New Expedited Construction

**Bunge North America Inc**  
**003005AAI**  
**22110001**

*Office Coordinator*  
*Illinois Environmental Protection Agency*  
*Bureau of Air*

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**Schnepp, Jason**

---

**From:** Adelman, Amy M.  
**Sent:** Friday, December 2, 2022 8:48 AM  
**To:** Schnepp, Jason  
**Cc:** Walton, Marlisha M.; Rothenberg, Marcus A.; Nation, Trent  
**Subject:** Expedited Bunge North America Inc 003005AAI 21110001  
**Attachments:** Route Slip- Bunge North America Inc 003005AAI 22110001.docx; Memo Bunge North America Inc 003005AAI 21110001.docx; Agreement Bunge North America Inc 003005AAI 21110001.docx

Hi Jason,

Please review the Route slip, Memo and Agreement for Bunge North America Inc 003005AAI 21110001.

Thank you,

*Amy Adelman*, Office Coordinator

IL Environmental Protection Agency, Bureau of Air  
1021 N Grand Ave E  
Springfield, IL 62794  
Email: [Amy.M.Adelman@illinois.gov](mailto:Amy.M.Adelman@illinois.gov)  
Main: (217) 785- 1705 | Direct: (217) 558- 7374



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Illinois Environmental Protection Agency

**Routing and Approval Slip**

To: John J. Kim

Concurrences:	Initials	Date
1. Jason Schnepf		
2. Bill Marr		
3. Julie Armitage		
4. John Kim		
5.		
6.		
7.		
8.		

Comments:

**Contract for expedited permit application review  
 Bunge North America Inc (Cairo, Alexander County)  
 Fee: \$40,000**

**PLEASE EXPEDITE**

003005AAI  
21110001







# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

## MEMORANDUM

DATE: 12-09-2022  
 TO: Julie Armitage  
 FROM: Bill Marr  
 SUBJECT: Expedited Permit Application Review – Bunge North America Inc

Enclosed is a contract for an expedited permit application review. Bunge North America Inc submitted a signed standard contract that proposes a 13-calendar day review period. Details on the application follow:

Applicant: Bunge North America Inc  
Location: 203 34th St, Cairo, Alexander  
I.D. Number: 003005AAI  
Application Number: 21110001  
Staff Lead: Daniel Rowell  
Unit Manager: Jason Schnepf  
Estimated OT Required: 20 hours  
Description of Request: Construction of new grain cleaning and drying units. This equipment will take the place of existing grain cleaning and drying equipment. Emissions of particulate from the new grain cleaning units will be controlled by a new baghouse.

Application Received Date: 11-03-2022  
EJ Notification Date: 12-02-2022  
Fugitive Dust Plan: N/A  
Modeling Completion Date: N/A  
Public Notice Date: N/A  
Issuance Date: 12-22-2022  
Current Due Date: 02-01-2023

Fees: Standard Fee: \$10,000  
 Expedited Fee: \$40,000

Contract Language:  Standard language has been accepted by the applicant; or  
 The applicant has proposed changes to the standard language and they have been deemed acceptable by DLC. A copy of the DLC concurrence is attached.

If you have any questions on this permit, contact me at 7-0312.



## AGREEMENT FOR EXPEDITED REVIEW OF PERMIT APPLICATION

The Illinois Environmental Protection Agency (“Agency”) and Bunge North America Inc having its principal place of business at 203 34th St, Cairo, Illinois (“Applicant”), enter into and execute this Agreement for Expedited Review of Permit Application (“Agreement”) and hereby agree as follows:

### SECTION 1 AUTHORITY:

This Agreement is entered into pursuant to Section 39.14 of the Environmental Protection Act (“Act”), 415 ILCS 5/39.14, and is subject to the laws of the State of Illinois.

### SECTION 2 ENTIRE AGREEMENT:

This document contains the entire agreement between the parties, and no statements, promises, or inducements made by either party or agent of either party, orally or in writing, that are not contained in this written Agreement are valid or binding. This Agreement may not be enlarged, modified, or altered except in writing signed by the parties.

### SECTION 3 PERMIT APPLICATION:

<u>Source Location:</u>	203 34th St, Cairo, Illinois
<u>Source I.D. No.:</u>	003005AAI
<u>Application Type:</u>	Construction
<u>Application No.:</u>	21110001
<u>Date Received:</u>	11-03-2022
<u>Description:</u>	New Grain Cleaning and Drying Units

### SECTION 4 EXPEDITED REVIEW:

- A. The Agency agrees to perform the usual and customary review of Applicant’s permit application described in Section 3 (“Application”) as necessary for processing any similar application.
- B. The Agency agrees to take an action on the Application by approving or denying the application (hereinafter “action” or “an action”) within 13 calendar days from the date this agreement is fully executed, the date the Agency has received the permit application or the date the Agency receives the payment specified in Section 6, whichever is latest, subject to tolling as provided in Section 5.
- C. Applicant hereby agrees to toll any time period for Agency action on the Application that is set forth in the Act or Board rules. Tolling shall begin on the date this Agreement is fully executed, the date the Agency has received the permit application or the date the Agency receives the payment specified in Section 6,

whichever is latest. Any time period tolled under this subsection (C) shall resume upon termination of this Agreement. While this Agreement may establish a different review time for the Application than otherwise set forth in the Act or Board rules, this Agreement is not intended to create any right to automatic approval of the Application upon the Agency's failure to meet the expedited review time frame.

- D. The Agency's review of the Application within the time frame set forth in paragraph B shall be known as "Expedited Review." This Agreement addresses only Expedited Review of the Application and does not create any other right or obligation for either party.
- E. The Expedited Review shall be of the Application as described in Section 3. In the Agency's discretion, changes to the Application may necessitate changes to this Agreement.
- F. The Agency's action on the Application does not affect the Applicant's obligations and responsibilities under this Agreement, including but not limited to, the payment of the fee specified in Section 6.

**SECTION 5 TOLLING OF EXPEDITED REVIEW:**

- A. The period of time set forth in Section 4 will be tolled during any period of time the Agency is waiting for the Applicant or any other party to provide information necessary for the Agency to complete its Expedited Review. The date the Agency requests necessary information from the Applicant or from any other party shall be the date tolling of the time period set forth in Section 4 begins. The time period set forth in Section 4 shall resume when the Agency receives the necessary information. The Agency's record of the date of receipt shall be deemed conclusive unless a contrary date is proved by a dated, signed receipt from the Agency or certified or registered mail.
- B. If the Agency sends the Applicant a notice of intention to terminate pursuant to Section 7, the time period set forth in Section 4 will be tolled until the Applicant corrects the deficiencies identified in the notice, unless the Agency elects to terminate this Agreement.
- C. If notice and opportunity to comment is provided to the public, the time period in Section 4 will be tolled, beginning when public notice is published and resuming 21 calendar days after the comment period closes.
- D. If a public hearing is held in the course of the Agency's review of the Application, the time period set forth in Section 4 will be tolled, beginning when notice for the public hearing is published and resuming 21 calendar days after the record in the hearing is closed.

- E. The Agency will document when a tolling period begins, the reason(s) the time period in Section 4 is being tolled and when the tolling period ends. The Agency will provide the Applicant a copy of this documentation upon request.

**SECTION 6 FEES:**

The Applicant agrees to pay the Agency an expedited permit fee in the amount of \$40,000. Payment must be made by check or money order, in the amount of \$40,000 made payable to the "Illinois EPA." The expedited permit fee is in addition to any other costs or fees required by the Act or Board rules, including, but not limited to, standard permit fees, initial permit fees, recurring permit fees, and annual permit fees.

The Agency may, at its discretion, accept a method of payment different than stated above.

**SECTION 7 TERMINATION:**

- A. The Applicant may terminate this Agreement at any time. To terminate this Agreement, the Applicant must submit written notification of termination to the Agency. The termination shall take effect on the date the Agency receives the notification. When the Applicant terminates this Agreement, the Applicant waives any and all right to seek reimbursement or refund of the expedited permit fee paid pursuant to Section 6.
- B. The Agency may terminate this Agreement for the following reasons.
1. After requested by the Agency, the Applicant fails to provide information the Agency deems necessary to complete the Expedited Review.
  2. A third party fails to provide information to the Agency that the Agency deems necessary to the completion of the Expedited Review.
  3. The Applicant fails to correct deficiencies in the Application as identified by the Agency.
  4. The Applicant's modification of the Application causes the Agency to be unable to take an action within the time period set forth in Section 4.
  5. The Applicant fails to pay the fee provided in Section 6, or the payment of the fee is drawn from an account with insufficient funds to cover the fee amount specified in Section 6.
  6. The Applicant fails to pay other fees or costs as required by the Act or Board rules.
  7. The Agency no longer has the resources available to take action on the Application within the time period set forth in Section 4.

Prior to terminating this Agreement, the Agency shall notify the applicant in writing of its intention to terminate and the reasons for the termination. When possible, the Agency shall provide the applicant with a reasonable opportunity to correct the reasons for the termination. If deficiencies remain uncorrected after the time period specified by the Agency, the Agency may proceed with termination of this Agreement. The Agency must provide the Applicant with written notification of termination that includes the reasons for the termination. The notice shall be provided by certified or registered mail postmarked with a date stamp and with return receipt requested. Termination of the Agreement shall take effect on the date the notification of termination is postmarked.

- C. This Agreement will automatically be terminated upon withdrawal of the Application by the Agency in response to a written request to withdraw the Application received from the Applicant. The termination of the Agreement shall take effect on the date the Agency issues an Application withdrawal letter.

#### **SECTION 8 AMENDMENTS:**

This Agreement may be modified by written agreement between the Agency and the Applicant. No modification, amendment, supplement to or waiver of this Agreement or any of its provisions shall be binding upon the Agency or Applicant unless made in writing and duly signed by both parties. A failure of or delay by either party to this Agreement to enforce at any time any of the provisions of this Agreement or to require at any time performance of any of the provisions of this Agreement shall in no way be construed to be a waiver of such provision.

#### **SECTION 9 REFUNDS:**

The Applicant waives all rights to a refund from the Agency of any fee paid under Section 6 except as provided in this Section. Any refund to the Applicant shall not exceed the fee amount in Section 6 and shall not accrue interest.

- A. **Termination by Agency.** If the Agency terminates this Agreement pursuant to subsection 7(B)(7), the Agency will refund the entire fee paid under Section 6 to the Applicant. The Applicant is not entitled to a refund of the fee paid under Section 6 if the Agency terminates this Agreement for the reasons set forth in subsections 7(B)(1)-(6).
- B. **Late Action.** If the Agency takes an action on the Application, but fails to take this action within the time period set forth in Section 4, taking into account the tolling in Section 5, the Applicant shall be entitled to a refund of the expedited permit fee paid under Section 6 on a prorated basis. The refund shall be calculated as follows.

$$\text{Refund} = \frac{\text{Expedited Permit Fee}}{13} \times \frac{\text{Number of Days Past Expedited Review Deadline}}{\text{Expedited Review Deadline}}$$

The parties agree that the Applicant will not receive a refund if the Agency's failure to take action on the permit application within the time period specified in Section 4 was due to a force majeure.

**SECTION 10 DISPUTES:**

Disputes relating to performance of this Agreement that are not resolved by the parties shall be decided by the Director of the Agency, or his or her authorized representative, who shall render a decision in writing. This decision shall be furnished to the Applicant by mail, electronic mail, facsimile, personal service, or by similar means. The decision of the Director shall be final and conclusive.

**SECTION 11 INDEMNIFICATION AND LIABILITY:**

The Applicant agrees to defend, indemnify and hold harmless the State, its agencies, officers, employees, agents and volunteers from any and all costs, demands, expenses, losses, claims, damages, liabilities, settlements and judgments, including reasonable in-house and contracted attorney's fees and expenses, caused by, arising out of or occurring in connection with any breach or violation of this Agreement, or any Agency action taken on the permit application specified in Section 3.

**SECTION 12 SEVERABILITY:**

If any provision of this Agreement is held to be illegal, invalid, or unenforceable, that provision will be fully severable, and this Agreement will be construed and enforced as if the illegal, invalid or unenforceable provision had never been part of this Agreement, and the remaining provisions of this Agreement will remain in full force and effect.

**SECTION 13 NOTICE:**

Notices and other communications provided for herein, unless otherwise specified, shall be given in writing by registered or certified mail, return receipt requested, by receipted hand delivery, by courier (UPS, FedEx or other similar and reliable carrier), by e-mail or by fax showing the date and time of successful receipt. By giving notice, either Party may change the contact information. Notice shall be sent to following persons:



**Agency Contact**

William D. Marr  
Manager, Permit Section  
Illinois EPA, Bureau of Air  
1021 N. Grand Avenue East  
Springfield, IL 62702  
Phone: 217-785-1705  
Email: Bill.Marr@illinois.gov

**Applicant Contact**

James Burris  
Environmental Specialist  
Bunge North America Inc  
203 34th St  
Cairo, IL 62914  
Phone: 314-292-2937  
Email: James.Burris@Bunge.com

**SECTION 14 IMPLEMENTATION:**

The Applicant agrees to execute such further documents and take such further steps as the Agency reasonably determines may be necessary to effectuate its review of the Applicant's permit application.

**SECTION 15 AUTHORIZATION:**

Each party to this Agreement represents and warrants to the other that (a) it has the right, power, and authority to enter into and perform its obligations under this Agreement, and (b) it has taken all requisite action (corporate, statutory or otherwise) to approve execution, delivery and performance of this Agreement, and (c) this Agreement constitutes a legal, valid and binding obligation upon itself in accordance with the terms of the Agreement.

IN WITNESS WHEREOF, the undersigned have caused this Agreement to be executed on behalf of the parties. This Agreement shall be considered fully executed on the latest date of the Agency's or the Applicant's signature below.

**Illinois Environmental Protection Agency**

Signature \_\_\_\_\_  
John J. Kim, Director

Date \_\_\_\_\_ 12-09-2022

**Bunge North America Inc**

Signature \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

**Schnepf, Jason**

---

**From:** Schnepf, Jason  
**Sent:** Friday, December 2, 2022 9:52 AM  
**To:** Adelman, Amy M.  
**Cc:** Walton, Marlisha M.; Rothenberg, Marcus A.; Nation, Trent  
**Subject:** RE: Expedited Bunge North America Inc 003005AAI 21110001  
**Attachments:** Agreement Bunge North America Inc 003005AAI 21110001.docx; Route Slip- Bunge North America Inc 003005AAI 21110001.docx

See attached.

Thanks,

Jason Schnepf  
Manager, CAAPP Construction Unit  
217-524-3724

**From:** Adelman, Amy M. <Amy.M.Adelman@Illinois.gov>  
**Sent:** Friday, December 2, 2022 8:48 AM  
**To:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Cc:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@Illinois.gov>; Nation, Trent <Trent.Nation@Illinois.gov>  
**Subject:** Expedited Bunge North America Inc 003005AAI 21110001

Hi Jason,

Please review the Route slip, Memo and Agreement for Bunge North America Inc 003005AAI 21110001.

Thank you,

*Amy Adelman*, Office Coordinator

IL Environmental Protection Agency, Bureau of Air  
1021 N Grand Ave E  
Springfield, IL 62794  
Email: [Amy.M.Adelman@illinois.gov](mailto:Amy.M.Adelman@illinois.gov)  
Main: (217) 785- 1705 | Direct: (217) 558- 7374



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## **AGREEMENT FOR EXPEDITED REVIEW OF PERMIT APPLICATION**

The Illinois Environmental Protection Agency (“Agency”) and Bunge North America Inc having its principal place of business at 203 34th St, Cairo, Illinois (“Applicant”), enter into and execute this Agreement for Expedited Review of Permit Application (“Agreement”) and hereby agree as follows:

### **SECTION 1 AUTHORITY:**

This Agreement is entered into pursuant to Section 39.14 of the Environmental Protection Act (“Act”), 415 ILCS 5/39.14, and is subject to the laws of the State of Illinois.

### **SECTION 2 ENTIRE AGREEMENT:**

This document contains the entire agreement between the parties, and no statements, promises, or inducements made by either party or agent of either party, orally or in writing, that are not contained in this written Agreement are valid or binding. This Agreement may not be enlarged, modified, or altered except in writing signed by the parties.

### **SECTION 3 PERMIT APPLICATION:**

<u>Source Location:</u>	203 34th St, Cairo, Illinois
<u>Source I.D. No.:</u>	003005AAI
<u>Application Type:</u>	Construction
<u>Application No.:</u>	21110001
<u>Date Received:</u>	11-03-2022
<u>Description:</u>	New Grain Cleaning and Drying Units

### **SECTION 4 EXPEDITED REVIEW:**

- A. The Agency agrees to perform the usual and customary review of Applicant’s permit application described in Section 3 (“Application”) as necessary for processing any similar application.
- B. The Agency agrees to take an action on the Application by approving or denying the application (hereinafter “action” or “an action”) within 13 calendar days from the date this agreement is fully executed, the date the Agency has received the permit application or the date the Agency receives the payment specified in Section 6, whichever is latest, subject to tolling as provided in Section 5.
- C. Applicant hereby agrees to toll any time period for Agency action on the Application that is set forth in the Act or Board rules. Tolling shall begin on the date this Agreement is fully executed, the date the Agency has received the permit application or the date the Agency receives the payment specified in Section 6,

whichever is latest. Any time period tolled under this subsection (C) shall resume upon termination of this Agreement. While this Agreement may establish a different review time for the Application than otherwise set forth in the Act or Board rules, this Agreement is not intended to create any right to automatic approval of the Application upon the Agency's failure to meet the expedited review time frame.

- D. The Agency's review of the Application within the time frame set forth in paragraph B shall be known as "Expedited Review." This Agreement addresses only Expedited Review of the Application and does not create any other right or obligation for either party.
- E. The Expedited Review shall be of the Application as described in Section 3. In the Agency's discretion, changes to the Application may necessitate changes to this Agreement.
- F. The Agency's action on the Application does not affect the Applicant's obligations and responsibilities under this Agreement, including but not limited to, the payment of the fee specified in Section 6.

**SECTION 5 TOLLING OF EXPEDITED REVIEW:**

- A. The period of time set forth in Section 4 will be tolled during any period of time the Agency is waiting for the Applicant or any other party to provide information necessary for the Agency to complete its Expedited Review. The date the Agency requests necessary information from the Applicant or from any other party shall be the date tolling of the time period set forth in Section 4 begins. The time period set forth in Section 4 shall resume when the Agency receives the necessary information. The Agency's record of the date of receipt shall be deemed conclusive unless a contrary date is proved by a dated, signed receipt from the Agency or certified or registered mail.
- B. If the Agency sends the Applicant a notice of intention to terminate pursuant to Section 7, the time period set forth in Section 4 will be tolled until the Applicant corrects the deficiencies identified in the notice, unless the Agency elects to terminate this Agreement.
- C. If notice and opportunity to comment is provided to the public, the time period in Section 4 will be tolled, beginning when public notice is published and resuming 21 calendar days after the comment period closes.
- D. If a public hearing is held in the course of the Agency's review of the Application, the time period set forth in Section 4 will be tolled, beginning when notice for the public hearing is published and resuming 21 calendar days after the record in the hearing is closed.

- E. The Agency will document when a tolling period begins, the reason(s) the time period in Section 4 is being tolled and when the tolling period ends. The Agency will provide the Applicant a copy of this documentation upon request.

#### **SECTION 6 FEES:**

The Applicant agrees to pay the Agency an expedited permit fee in the amount of \$40,000. Payment must be made by check or money order, in the amount of \$40,000 made payable to the "Illinois EPA." The expedited permit fee is in addition to any other costs or fees required by the Act or Board rules, including, but not limited to, standard permit fees, initial permit fees, recurring permit fees, and annual permit fees.

The Agency may, at its discretion, accept a method of payment different than stated above.

#### **SECTION 7 TERMINATION:**

- A. The Applicant may terminate this Agreement at any time. To terminate this Agreement, the Applicant must submit written notification of termination to the Agency. The termination shall take effect on the date the Agency receives the notification. When the Applicant terminates this Agreement, the Applicant waives any and all right to seek reimbursement or refund of the expedited permit fee paid pursuant to Section 6.
- B. The Agency may terminate this Agreement for the following reasons.
  - 1. After requested by the Agency, the Applicant fails to provide information the Agency deems necessary to complete the Expedited Review.
  - 2. A third party fails to provide information to the Agency that the Agency deems necessary to the completion of the Expedited Review.
  - 3. The Applicant fails to correct deficiencies in the Application as identified by the Agency.
  - 4. The Applicant's modification of the Application causes the Agency to be unable to take an action within the time period set forth in Section 4.
  - 5. The Applicant fails to pay the fee provided in Section 6, or the payment of the fee is drawn from an account with insufficient funds to cover the fee amount specified in Section 6.
  - 6. The Applicant fails to pay other fees or costs as required by the Act or Board rules.
  - 7. The Agency no longer has the resources available to take action on the Application within the time period set forth in Section 4.

Prior to terminating this Agreement, the Agency shall notify the applicant in writing of its intention to terminate and the reasons for the termination. When possible, the Agency shall provide the applicant with a reasonable opportunity to correct the reasons for the termination. If deficiencies remain uncorrected after the time period specified by the Agency, the Agency may proceed with termination of this Agreement. The Agency must provide the Applicant with written notification of termination that includes the reasons for the termination. The notice shall be provided by certified or registered mail postmarked with a date stamp and with return receipt requested. Termination of the Agreement shall take effect on the date the notification of termination is postmarked.

- C. This Agreement will automatically be terminated upon withdrawal of the Application by the Agency in response to a written request to withdraw the Application received from the Applicant. The termination of the Agreement shall take effect on the date the Agency issues an Application withdrawal letter.

#### **SECTION 8 AMENDMENTS:**

This Agreement may be modified by written agreement between the Agency and the Applicant. No modification, amendment, supplement to or waiver of this Agreement or any of its provisions shall be binding upon the Agency or Applicant unless made in writing and duly signed by both parties. A failure of or delay by either party to this Agreement to enforce at any time any of the provisions of this Agreement or to require at any time performance of any of the provisions of this Agreement shall in no way be construed to be a waiver of such provision.

#### **SECTION 9 REFUNDS:**

The Applicant waives all rights to a refund from the Agency of any fee paid under Section 6 except as provided in this Section. Any refund to the Applicant shall not exceed the fee amount in Section 6 and shall not accrue interest.

- A. Termination by Agency. If the Agency terminates this Agreement pursuant to subsection 7(B)(7), the Agency will refund the entire fee paid under Section 6 to the Applicant. The Applicant is not entitled to a refund of the fee paid under Section 6 if the Agency terminates this Agreement for the reasons set forth in subsections 7(B)(1)-(6).
- B. Late Action. If the Agency takes an action on the Application, but fails to take this action within the time period set forth in Section 4, taking into account the tolling in Section 5, the Applicant shall be entitled to a refund of the expedited permit fee paid under Section 6 on a prorated basis. The refund shall be calculated as follows.

$$\text{Refund} = \frac{\text{Expedited Permit Fee}}{13} \times \frac{\text{Number of Days Past}}{\text{Expedited Review Deadline}}$$

The parties agree that the Applicant will not receive a refund if the Agency's failure to take action on the permit application within the time period specified in Section 4 was due to a force majeure.

**SECTION 10 DISPUTES:**

Disputes relating to performance of this Agreement that are not resolved by the parties shall be decided by the Director of the Agency, or his or her authorized representative, who shall render a decision in writing. This decision shall be furnished to the Applicant by mail, electronic mail, facsimile, personal service, or by similar means. The decision of the Director shall be final and conclusive.

**SECTION 11 INDEMNIFICATION AND LIABILITY:**

The Applicant agrees to defend, indemnify and hold harmless the State, its agencies, officers, employees, agents and volunteers from any and all costs, demands, expenses, losses, claims, damages, liabilities, settlements and judgments, including reasonable in-house and contracted attorney's fees and expenses, caused by, arising out of or occurring in connection with any breach or violation of this Agreement, or any Agency action taken on the permit application specified in Section 3.

**SECTION 12 SEVERABILITY:**

If any provision of this Agreement is held to be illegal, invalid, or unenforceable, that provision will be fully severable, and this Agreement will be construed and enforced as if the illegal, invalid or unenforceable provision had never been part of this Agreement, and the remaining provisions of this Agreement will remain in full force and effect.

**SECTION 13 NOTICE:**

Notices and other communications provided for herein, unless otherwise specified, shall be given in writing by registered or certified mail, return receipt requested, by receipted hand delivery, by courier (UPS, FedEx or other similar and reliable carrier), by e-mail or by fax showing the date and time of successful receipt. By giving notice, either Party may change the contact information. Notice shall be sent to following persons:



**Agency Contact**

William D. Marr  
Manager, Permit Section  
Illinois EPA, Bureau of Air  
1021 N. Grand Avenue East  
Springfield, IL 62702  
Phone: 217-785-1705  
Email: Bill.Marr@illinois.gov

**Applicant Contact**

James Burris  
Environmental Specialist  
Bunge North America Inc  
203 34th St  
Cairo, IL 62914  
Phone: 314-292-2937  
Email: James.Burris@Bunge.com

**SECTION 14 IMPLEMENTATION:**

The Applicant agrees to execute such further documents and take such further steps as the Agency reasonably determines may be necessary to effectuate its review of the Applicant's permit application.

**SECTION 15 AUTHORIZATION:**

Each party to this Agreement represents and warrants to the other that (a) it has the right, power, and authority to enter into and perform its obligations under this Agreement, and (b) it has taken all requisite action (corporate, statutory or otherwise) to approve execution, delivery and performance of this Agreement, and (c) this Agreement constitutes a legal, valid and binding obligation upon itself in accordance with the terms of the Agreement.

IN WITNESS WHEREOF, the undersigned have caused this Agreement to be executed on behalf of the parties. This Agreement shall be considered fully executed on the latest date of the Agency's or the Applicant's signature below.

**Illinois Environmental Protection Agency**

**Bunge North America Inc**

Signature \_\_\_\_\_  
John J. Kim, Director

Signature \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_ 12-09-2022

Date \_\_\_\_\_



Illinois Environmental Protection Agency

**Routing and Approval Slip**

To: John J. Kim

	Concurrences:	Initials	Date
1.	Jason Schnepf		
2.	Bill Marr		
3.	Julie Armitage		
4.	John Kim		
5.			
6.			
7.			
8.			

Comments:

**Contract for expedited permit application review  
Bunge North America Inc (Cairo, Alexander County)  
Fee: \$40,000**

**PLEASE EXPEDITE**

003005AAI  
21110001



**Schnepp, Jason**

---

**From:** Schnepp, Jason  
**Sent:** Friday, December 2, 2022 9:54 AM  
**To:** Adelman, Amy M.  
**Cc:** Walton, Marlisha M.; Rothenberg, Marcus A.; Nation, Trent  
**Subject:** RE: Expedited Bunge North America Inc 003005AAI 21110001  
**Attachments:** Memo Bunge North America Inc 003005AAI 21110001\_jms.docx; Agreement Bunge North America Inc 003005AAI 21110001\_jms.docx; Route Slip- Bunge North America Inc 003005AAI 21110001\_jms.docx

Please ignore the below email and use these attachments.

Thanks,

Jason Schnepp  
Manager, CAAPP Construction Unit  
217-524-3724

**From:** Schnepp, Jason  
**Sent:** Friday, December 2, 2022 9:52 AM  
**To:** Adelman, Amy M. <Amy.M.Adelman@illinois.gov>  
**Cc:** Walton, Marlisha M. <Marlisha.Walton@illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@illinois.gov>; Nation, Trent <Trent.Nation@illinois.gov>  
**Subject:** RE: Expedited Bunge North America Inc 003005AAI 21110001

See attached.

Thanks,

Jason Schnepp  
Manager, CAAPP Construction Unit  
217-524-3724

**From:** Adelman, Amy M. <Amy.M.Adelman@illinois.gov>  
**Sent:** Friday, December 2, 2022 8:48 AM  
**To:** Schnepp, Jason <Jason.Schnepp@illinois.gov>  
**Cc:** Walton, Marlisha M. <Marlisha.Walton@illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@illinois.gov>; Nation, Trent <Trent.Nation@illinois.gov>  
**Subject:** Expedited Bunge North America Inc 003005AAI 21110001

Hi Jason,

Please review the Route slip, Memo and Agreement for Bunge North America Inc 003005AAI 21110001.

Thank you,

*Amy Adelman*, Office Coordinator

IL Environmental Protection Agency, Bureau of Air  
1021 N Grand Ave E  
Springfield, IL 62794  
Email: [Amy.M.Adelman@illinois.gov](mailto:Amy.M.Adelman@illinois.gov)  
Main: (217) 785- 1705 | Direct: (217) 558- 7374



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# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

## MEMORANDUM

DATE: 12-09-2022  
 TO: Julie Armitage  
 FROM: Bill Marr  
 SUBJECT: Expedited Permit Application Review – Bunge North America Inc

Enclosed is a contract for an expedited permit application review. Bunge North America Inc submitted a signed standard contract that proposes a 13-calendar day review period. Details on the application follow:

Applicant: Bunge North America Inc

Location: 203 34th St, Cairo, Alexander County

I.D. Number: 003005AAI

Application Number: 21110001

Staff Lead: Daniel Rowell

Unit Manager: Jason Schnepf

Estimated OT Required: 20 hours

Description of Request: Construction of new grain cleaning and drying units. This equipment will take the place of existing grain cleaning and drying equipment. Emissions of particulate from the new grain cleaning units will be controlled by a new baghouse. There will be no increase in permitted particulate emissions for this project.

Application Received Date: 11-03-2022

EJ Notification Date: 12-02-2022

Fugitive Dust Plan: N/A

Modeling Completion Date: N/A

Public Notice Date: N/A

Issuance Date: 12-22-2022

Current Due Date: 02-01-2023

Fees: Standard Fee: \$10,000  
 Expedited Fee: \$40,000

Contract Language:  Standard language has been accepted by the applicant; or  
 The applicant has proposed changes to the standard language and they have been deemed acceptable by DLC. A copy of the DLC concurrence is attached.

If you have any questions on this permit, contact me at 7-0312.



## AGREEMENT FOR EXPEDITED REVIEW OF PERMIT APPLICATION

The Illinois Environmental Protection Agency (“Agency”) and Bunge North America Inc having its principal place of business at 203 34th St, Cairo, Illinois (“Applicant”), enter into and execute this Agreement for Expedited Review of Permit Application (“Agreement”) and hereby agree as follows:

### SECTION 1 AUTHORITY:

This Agreement is entered into pursuant to Section 39.14 of the Environmental Protection Act (“Act”), 415 ILCS 5/39.14, and is subject to the laws of the State of Illinois.

### SECTION 2 ENTIRE AGREEMENT:

This document contains the entire agreement between the parties, and no statements, promises, or inducements made by either party or agent of either party, orally or in writing, that are not contained in this written Agreement are valid or binding. This Agreement may not be enlarged, modified, or altered except in writing signed by the parties.

### SECTION 3 PERMIT APPLICATION:

<u>Source Location:</u>	203 34th St, Cairo, Illinois
<u>Source I.D. No.:</u>	003005AAI
<u>Application Type:</u>	Construction
<u>Application No.:</u>	21110001
<u>Date Received:</u>	11-03-2022
<u>Description:</u>	New Grain Cleaning and Drying Units

### SECTION 4 EXPEDITED REVIEW:

- A. The Agency agrees to perform the usual and customary review of Applicant’s permit application described in Section 3 (“Application”) as necessary for processing any similar application.
- B. The Agency agrees to take an action on the Application by approving or denying the application (hereinafter “action” or “an action”) within 13 calendar days from the date this agreement is fully executed, the date the Agency has received the permit application or the date the Agency receives the payment specified in Section 6, whichever is latest, subject to tolling as provided in Section 5.
- C. Applicant hereby agrees to toll any time period for Agency action on the Application that is set forth in the Act or Board rules. Tolling shall begin on the date this Agreement is fully executed, the date the Agency has received the permit application or the date the Agency receives the payment specified in Section 6,



whichever is latest. Any time period tolled under this subsection (C) shall resume upon termination of this Agreement. While this Agreement may establish a different review time for the Application than otherwise set forth in the Act or Board rules, this Agreement is not intended to create any right to automatic approval of the Application upon the Agency's failure to meet the expedited review time frame.

- D. The Agency's review of the Application within the time frame set forth in paragraph B shall be known as "Expedited Review." This Agreement addresses only Expedited Review of the Application and does not create any other right or obligation for either party.
- E. The Expedited Review shall be of the Application as described in Section 3. In the Agency's discretion, changes to the Application may necessitate changes to this Agreement.
- F. The Agency's action on the Application does not affect the Applicant's obligations and responsibilities under this Agreement, including but not limited to, the payment of the fee specified in Section 6.

**SECTION 5 TOLLING OF EXPEDITED REVIEW:**

- A. The period of time set forth in Section 4 will be tolled during any period of time the Agency is waiting for the Applicant or any other party to provide information necessary for the Agency to complete its Expedited Review. The date the Agency requests necessary information from the Applicant or from any other party shall be the date tolling of the time period set forth in Section 4 begins. The time period set forth in Section 4 shall resume when the Agency receives the necessary information. The Agency's record of the date of receipt shall be deemed conclusive unless a contrary date is proved by a dated, signed receipt from the Agency or certified or registered mail.
- B. If the Agency sends the Applicant a notice of intention to terminate pursuant to Section 7, the time period set forth in Section 4 will be tolled until the Applicant corrects the deficiencies identified in the notice, unless the Agency elects to terminate this Agreement.
- C. If notice and opportunity to comment is provided to the public, the time period in Section 4 will be tolled, beginning when public notice is published and resuming 21 calendar days after the comment period closes.
- D. If a public hearing is held in the course of the Agency's review of the Application, the time period set forth in Section 4 will be tolled, beginning when notice for the public hearing is published and resuming 21 calendar days after the record in the hearing is closed.

- E. The Agency will document when a tolling period begins, the reason(s) the time period in Section 4 is being tolled and when the tolling period ends. The Agency will provide the Applicant a copy of this documentation upon request.

#### **SECTION 6 FEES:**

The Applicant agrees to pay the Agency an expedited permit fee in the amount of \$40,000. Payment must be made by check or money order, in the amount of \$40,000 made payable to the "Illinois EPA." The expedited permit fee is in addition to any other costs or fees required by the Act or Board rules, including, but not limited to, standard permit fees, initial permit fees, recurring permit fees, and annual permit fees.

The Agency may, at its discretion, accept a method of payment different than stated above.

#### **SECTION 7 TERMINATION:**

- A. The Applicant may terminate this Agreement at any time. To terminate this Agreement, the Applicant must submit written notification of termination to the Agency. The termination shall take effect on the date the Agency receives the notification. When the Applicant terminates this Agreement, the Applicant waives any and all right to seek reimbursement or refund of the expedited permit fee paid pursuant to Section 6.
- B. The Agency may terminate this Agreement for the following reasons.
1. After requested by the Agency, the Applicant fails to provide information the Agency deems necessary to complete the Expedited Review.
  2. A third party fails to provide information to the Agency that the Agency deems necessary to the completion of the Expedited Review.
  3. The Applicant fails to correct deficiencies in the Application as identified by the Agency.
  4. The Applicant's modification of the Application causes the Agency to be unable to take an action within the time period set forth in Section 4.
  5. The Applicant fails to pay the fee provided in Section 6, or the payment of the fee is drawn from an account with insufficient funds to cover the fee amount specified in Section 6.
  6. The Applicant fails to pay other fees or costs as required by the Act or Board rules.
  7. The Agency no longer has the resources available to take action on the Application within the time period set forth in Section 4.

Prior to terminating this Agreement, the Agency shall notify the applicant in writing of its intention to terminate and the reasons for the termination. When possible, the Agency shall provide the applicant with a reasonable opportunity to correct the reasons for the termination. If deficiencies remain uncorrected after the time period specified by the Agency, the Agency may proceed with termination of this Agreement. The Agency must provide the Applicant with written notification of termination that includes the reasons for the termination. The notice shall be provided by certified or registered mail postmarked with a date stamp and with return receipt requested. Termination of the Agreement shall take effect on the date the notification of termination is postmarked.

- C. This Agreement will automatically be terminated upon withdrawal of the Application by the Agency in response to a written request to withdraw the Application received from the Applicant. The termination of the Agreement shall take effect on the date the Agency issues an Application withdrawal letter.

#### **SECTION 8 AMENDMENTS:**

This Agreement may be modified by written agreement between the Agency and the Applicant. No modification, amendment, supplement to or waiver of this Agreement or any of its provisions shall be binding upon the Agency or Applicant unless made in writing and duly signed by both parties. A failure of or delay by either party to this Agreement to enforce at any time any of the provisions of this Agreement or to require at any time performance of any of the provisions of this Agreement shall in no way be construed to be a waiver of such provision.

#### **SECTION 9 REFUNDS:**

The Applicant waives all rights to a refund from the Agency of any fee paid under Section 6 except as provided in this Section. Any refund to the Applicant shall not exceed the fee amount in Section 6 and shall not accrue interest.

- A. Termination by Agency. If the Agency terminates this Agreement pursuant to subsection 7(B)(7), the Agency will refund the entire fee paid under Section 6 to the Applicant. The Applicant is not entitled to a refund of the fee paid under Section 6 if the Agency terminates this Agreement for the reasons set forth in subsections 7(B)(1)-(6).
- B. Late Action. If the Agency takes an action on the Application, but fails to take this action within the time period set forth in Section 4, taking into account the tolling in Section 5, the Applicant shall be entitled to a refund of the expedited permit fee paid under Section 6 on a prorated basis. The refund shall be calculated as follows.

$$\text{Refund} = \frac{\text{Expedited Permit Fee}}{13} \times \frac{\text{Number of Days Past Expedited Review Deadline}}{\text{Expedited Review Deadline}}$$

The parties agree that the Applicant will not receive a refund if the Agency's failure to take action on the permit application within the time period specified in Section 4 was due to a force majeure.

**SECTION 10 DISPUTES:**

Disputes relating to performance of this Agreement that are not resolved by the parties shall be decided by the Director of the Agency, or his or her authorized representative, who shall render a decision in writing. This decision shall be furnished to the Applicant by mail, electronic mail, facsimile, personal service, or by similar means. The decision of the Director shall be final and conclusive.

**SECTION 11 INDEMNIFICATION AND LIABILITY:**

The Applicant agrees to defend, indemnify and hold harmless the State, its agencies, officers, employees, agents and volunteers from any and all costs, demands, expenses, losses, claims, damages, liabilities, settlements and judgments, including reasonable in-house and contracted attorney's fees and expenses, caused by, arising out of or occurring in connection with any breach or violation of this Agreement, or any Agency action taken on the permit application specified in Section 3.

**SECTION 12 SEVERABILITY:**

If any provision of this Agreement is held to be illegal, invalid, or unenforceable, that provision will be fully severable, and this Agreement will be construed and enforced as if the illegal, invalid or unenforceable provision had never been part of this Agreement, and the remaining provisions of this Agreement will remain in full force and effect.

**SECTION 13 NOTICE:**

Notices and other communications provided for herein, unless otherwise specified, shall be given in writing by registered or certified mail, return receipt requested, by receipted hand delivery, by courier (UPS, FedEx or other similar and reliable carrier), by e-mail or by fax showing the date and time of successful receipt. By giving notice, either Party may change the contact information. Notice shall be sent to following persons:

**Agency Contact**

William D. Marr  
Manager, Permit Section  
Illinois EPA, Bureau of Air  
1021 N. Grand Avenue East  
Springfield, IL 62702  
Phone: 217-785-1705  
Email: Bill.Marr@illinois.gov

**Applicant Contact**

James Burris  
Environmental Specialist  
Bunge North America Inc  
203 34th St  
Cairo, IL 62914  
Phone: 314-292-2937  
Email: James.Burris@Bunge.com

**SECTION 14 IMPLEMENTATION:**

The Applicant agrees to execute such further documents and take such further steps as the Agency reasonably determines may be necessary to effectuate its review of the Applicant's permit application.

**SECTION 15 AUTHORIZATION:**

Each party to this Agreement represents and warrants to the other that (a) it has the right, power, and authority to enter into and perform its obligations under this Agreement, and (b) it has taken all requisite action (corporate, statutory or otherwise) to approve execution, delivery and performance of this Agreement, and (c) this Agreement constitutes a legal, valid and binding obligation upon itself in accordance with the terms of the Agreement.

IN WITNESS WHEREOF, the undersigned have caused this Agreement to be executed on behalf of the parties. This Agreement shall be considered fully executed on the latest date of the Agency's or the Applicant's signature below.

**Illinois Environmental Protection Agency**

**Bunge North America Inc**

Signature \_\_\_\_\_  
John J. Kim, Director

Signature \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_ 12-09-2022

Date \_\_\_\_\_



Illinois Environmental Protection Agency

Routing and Approval Slip

To: John J. Kim

Concurrences:	Initials	Date
1. Jason Schnepf	JMS	12/2/22
2. Bill Marr		
3. Julie Armitage		
4. John Kim		
5.		
6.		
7.		
8.		

Comments:

**Contract for expedited permit application review  
 Bunge North America Inc (Cairo, Alexander County)  
 Fee: \$40,000**

**PLEASE EXPEDITE**

003005AAI  
21110001



**Rowell, Daniel**

---

**From:** Adelman, Amy M.  
**Sent:** Friday, December 2, 2022 1:08 PM  
**To:** James.Burris@bunge.com; Marr, Bill; Schnepf, Jason; Rowell, Daniel  
**Cc:** Walton, Marlisha M.; Nation, Trent; Rothenberg, Marcus A.  
**Subject:** Expedited Agreement Bunge North America, Inc 003005AAI 22110001  
**Attachments:** Agreement Bunge North America Inc 003005AAI 22110001.pdf

Good afternoon,

Attached is the expedited permit agreement between Bunge North America Inc and the Agency with an agreed issuance date of 12/22/22. Please have the appropriate person sign the last page and return the signed agreement to the agency address shown in Section 13. We received your expedited fee (\$40,000) on 11/03/2022 and a check for (\$500) on 11/03/22. We must receive the standard fee (\$9,500) and the signed agreement no later than 12/09/22 in order to meet the deadline. Prior to returning the documents back to the Agency, scan and email a copy of the signed agreement and check to me for our records. Also, please send a reply to ensure receipt of this email.

Thank you,

*Amy Adelman*, Office Coordinator

IL Environmental Protection Agency, Bureau of Air  
1021 N Grand Ave E  
Springfield, IL 62794  
Email: [Amy.M.Adelman@illinois.gov](mailto:Amy.M.Adelman@illinois.gov)  
Main: (217) 785- 1705 | Direct: (217) 558- 7374



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## AGREEMENT FOR EXPEDITED REVIEW OF PERMIT APPLICATION

The Illinois Environmental Protection Agency (“Agency”) and Bunge North America Inc having its principal place of business at 203 34th St, Cairo, Illinois (“Applicant”), enter into and execute this Agreement for Expedited Review of Permit Application (“Agreement”) and hereby agree as follows:

### SECTION 1 AUTHORITY:

This Agreement is entered into pursuant to Section 39.14 of the Environmental Protection Act (“Act”), 415 ILCS 5/39.14, and is subject to the laws of the State of Illinois.

### SECTION 2 ENTIRE AGREEMENT:

This document contains the entire agreement between the parties, and no statements, promises, or inducements made by either party or agent of either party, orally or in writing, that are not contained in this written Agreement are valid or binding. This Agreement may not be enlarged, modified, or altered except in writing signed by the parties.

### SECTION 3 PERMIT APPLICATION:

<u>Source Location:</u>	203 34th St, Cairo, Illinois
<u>Source I.D. No.:</u>	003005AAI
<u>Application Type:</u>	Construction
<u>Application No.:</u>	22110001
<u>Date Received:</u>	11-03-2022
<u>Description:</u>	New Grain Cleaning and Drying Units

### SECTION 4 EXPEDITED REVIEW:

- A. The Agency agrees to perform the usual and customary review of Applicant’s permit application described in Section 3 (“Application”) as necessary for processing any similar application.
- B. The Agency agrees to take an action on the Application by approving or denying the application (hereinafter “action” or “an action”) within 13 calendar days from the date this agreement is fully executed, the date the Agency has received the permit application or the date the Agency receives the payment specified in Section 6, whichever is latest, subject to tolling as provided in Section 5.
- C. Applicant hereby agrees to toll any time period for Agency action on the Application that is set forth in the Act or Board rules. Tolling shall begin on the date this Agreement is fully executed, the date the Agency has received the permit application or the date the Agency receives the payment specified in Section 6,

whichever is latest. Any time period tolled under this subsection (C) shall resume upon termination of this Agreement. While this Agreement may establish a different review time for the Application than otherwise set forth in the Act or Board rules, this Agreement is not intended to create any right to automatic approval of the Application upon the Agency's failure to meet the expedited review time frame.

- D. The Agency's review of the Application within the time frame set forth in paragraph B shall be known as "Expedited Review." This Agreement addresses only Expedited Review of the Application and does not create any other right or obligation for either party.
- E. The Expedited Review shall be of the Application as described in Section 3. In the Agency's discretion, changes to the Application may necessitate changes to this Agreement.
- F. The Agency's action on the Application does not affect the Applicant's obligations and responsibilities under this Agreement, including but not limited to, the payment of the fee specified in Section 6.

**SECTION 5 TOLLING OF EXPEDITED REVIEW:**

- A. The period of time set forth in Section 4 will be tolled during any period of time the Agency is waiting for the Applicant or any other party to provide information necessary for the Agency to complete its Expedited Review. The date the Agency requests necessary information from the Applicant or from any other party shall be the date tolling of the time period set forth in Section 4 begins. The time period set forth in Section 4 shall resume when the Agency receives the necessary information. The Agency's record of the date of receipt shall be deemed conclusive unless a contrary date is proved by a dated, signed receipt from the Agency or certified or registered mail.
- B. If the Agency sends the Applicant a notice of intention to terminate pursuant to Section 7, the time period set forth in Section 4 will be tolled until the Applicant corrects the deficiencies identified in the notice, unless the Agency elects to terminate this Agreement.
- C. If notice and opportunity to comment is provided to the public, the time period in Section 4 will be tolled, beginning when public notice is published and resuming 21 calendar days after the comment period closes.
- D. If a public hearing is held in the course of the Agency's review of the Application, the time period set forth in Section 4 will be tolled, beginning when notice for the public hearing is published and resuming 21 calendar days after the record in the hearing is closed.

- E. The Agency will document when a tolling period begins, the reason(s) the time period in Section 4 is being tolled and when the tolling period ends. The Agency will provide the Applicant a copy of this documentation upon request.

**SECTION 6 FEES:**

The Applicant agrees to pay the Agency an expedited permit fee in the amount of \$40,000. Payment must be made by check or money order, in the amount of \$40,000 made payable to the "Illinois EPA." The expedited permit fee is in addition to any other costs or fees required by the Act or Board rules, including, but not limited to, standard permit fees, initial permit fees, recurring permit fees, and annual permit fees.

The Agency may, at its discretion, accept a method of payment different than stated above.

**SECTION 7 TERMINATION:**

- A. The Applicant may terminate this Agreement at any time. To terminate this Agreement, the Applicant must submit written notification of termination to the Agency. The termination shall take effect on the date the Agency receives the notification. When the Applicant terminates this Agreement, the Applicant waives any and all right to seek reimbursement or refund of the expedited permit fee paid pursuant to Section 6.
- B. The Agency may terminate this Agreement for the following reasons.
1. After requested by the Agency, the Applicant fails to provide information the Agency deems necessary to complete the Expedited Review.
  2. A third party fails to provide information to the Agency that the Agency deems necessary to the completion of the Expedited Review.
  3. The Applicant fails to correct deficiencies in the Application as identified by the Agency.
  4. The Applicant's modification of the Application causes the Agency to be unable to take an action within the time period set forth in Section 4.
  5. The Applicant fails to pay the fee provided in Section 6, or the payment of the fee is drawn from an account with insufficient funds to cover the fee amount specified in Section 6.
  6. The Applicant fails to pay other fees or costs as required by the Act or Board rules.
  7. The Agency no longer has the resources available to take action on the Application within the time period set forth in Section 4.

Prior to terminating this Agreement, the Agency shall notify the applicant in writing of its intention to terminate and the reasons for the termination. When possible, the Agency shall provide the applicant with a reasonable opportunity to correct the reasons for the termination. If deficiencies remain uncorrected after the time period specified by the Agency, the Agency may proceed with termination of this Agreement. The Agency must provide the Applicant with written notification of termination that includes the reasons for the termination. The notice shall be provided by certified or registered mail postmarked with a date stamp and with return receipt requested. Termination of the Agreement shall take effect on the date the notification of termination is postmarked.

- C. This Agreement will automatically be terminated upon withdrawal of the Application by the Agency in response to a written request to withdraw the Application received from the Applicant. The termination of the Agreement shall take effect on the date the Agency issues an Application withdrawal letter.

#### **SECTION 8 AMENDMENTS:**

This Agreement may be modified by written agreement between the Agency and the Applicant. No modification, amendment, supplement to or waiver of this Agreement or any of its provisions shall be binding upon the Agency or Applicant unless made in writing and duly signed by both parties. A failure of or delay by either party to this Agreement to enforce at any time any of the provisions of this Agreement or to require at any time performance of any of the provisions of this Agreement shall in no way be construed to be a waiver of such provision.

#### **SECTION 9 REFUNDS:**

The Applicant waives all rights to a refund from the Agency of any fee paid under Section 6 except as provided in this Section. Any refund to the Applicant shall not exceed the fee amount in Section 6 and shall not accrue interest.

- A. Termination by Agency. If the Agency terminates this Agreement pursuant to subsection 7(B)(7), the Agency will refund the entire fee paid under Section 6 to the Applicant. The Applicant is not entitled to a refund of the fee paid under Section 6 if the Agency terminates this Agreement for the reasons set forth in subsections 7(B)(1)-(6).
- B. Late Action. If the Agency takes an action on the Application, but fails to take this action within the time period set forth in Section 4, taking into account the tolling in Section 5, the Applicant shall be entitled to a refund of the expedited permit fee paid under Section 6 on a prorated basis. The refund shall be calculated as follows.

$$\text{Refund} = \frac{\text{Expedited Permit Fee}}{13} \times \frac{\text{Number of Days Past Expedited Review Deadline}}{\text{Expedited Review Deadline}}$$

The parties agree that the Applicant will not receive a refund if the Agency's failure to take action on the permit application within the time period specified in Section 4 was due to a force majeure.

**SECTION 10 DISPUTES:**

Disputes relating to performance of this Agreement that are not resolved by the parties shall be decided by the Director of the Agency, or his or her authorized representative, who shall render a decision in writing. This decision shall be furnished to the Applicant by mail, electronic mail, facsimile, personal service, or by similar means. The decision of the Director shall be final and conclusive.

**SECTION 11 INDEMNIFICATION AND LIABILITY:**

The Applicant agrees to defend, indemnify and hold harmless the State, its agencies, officers, employees, agents and volunteers from any and all costs, demands, expenses, losses, claims, damages, liabilities, settlements and judgments, including reasonable in-house and contracted attorney's fees and expenses, caused by, arising out of or occurring in connection with any breach or violation of this Agreement, or any Agency action taken on the permit application specified in Section 3.

**SECTION 12 SEVERABILITY:**

If any provision of this Agreement is held to be illegal, invalid, or unenforceable, that provision will be fully severable, and this Agreement will be construed and enforced as if the illegal, invalid or unenforceable provision had never been part of this Agreement, and the remaining provisions of this Agreement will remain in full force and effect.

**SECTION 13 NOTICE:**

Notices and other communications provided for herein, unless otherwise specified, shall be given in writing by registered or certified mail, return receipt requested, by receipted hand delivery, by courier (UPS, FedEx or other similar and reliable carrier), by e-mail or by fax showing the date and time of successful receipt. By giving notice, either Party may change the contact information. Notice shall be sent to following persons:

**Agency Contact**

William D. Marr  
Manager, Permit Section  
Illinois EPA, Bureau of Air  
1021 N. Grand Avenue East  
Springfield, IL 62702  
Phone: 217-785-1705  
Email: Bill.Marr@illinois.gov

**Applicant Contact**

James Burris  
Environmental Specialist  
Bunge North America Inc  
203 34th St  
Cairo, IL 62914  
Phone: 314-292-2937  
Email: James.Burris@Bunge.com

**SECTION 14 IMPLEMENTATION:**

The Applicant agrees to execute such further documents and take such further steps as the Agency reasonably determines may be necessary to effectuate its review of the Applicant's permit application.

**SECTION 15 AUTHORIZATION:**

Each party to this Agreement represents and warrants to the other that (a) it has the right, power, and authority to enter into and perform its obligations under this Agreement, and (b) it has taken all requisite action (corporate, statutory or otherwise) to approve execution, delivery and performance of this Agreement, and (c) this Agreement constitutes a legal, valid and binding obligation upon itself in accordance with the terms of the Agreement.

IN WITNESS WHEREOF, the undersigned have caused this Agreement to be executed on behalf of the parties. This Agreement shall be considered fully executed on the latest date of the Agency's or the Applicant's signature below.

**Illinois Environmental Protection Agency**

**Bunge North America Inc**

Signature \_\_\_\_\_  
John J. Kim, Director

Signature \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_ 12-09-2022

Date \_\_\_\_\_

**Rowell, Daniel**

---

**From:** Rowell, Daniel  
**Sent:** Friday, December 2, 2022 1:33 PM  
**To:** Adelman, Amy M.  
**Cc:** Schnepf, Jason; Walton, Marlisha M.; Rothenberg, Marcus A.; Nation, Trent  
**Subject:** RE: Expedited Agreement Bunge North America, Inc 003005AAI 22110001

Without further context, I do not think that the \$500 check mentioned in the below e-mail is related to this application. Accordingly, the Permit Section needs \$10,000 to expedite the review of this application.

Thanks-  
 Daniel

**From:** Adelman, Amy M. <Amy.M.Adelman@Illinois.gov>  
**Sent:** Friday, December 2, 2022 1:08 PM  
**To:** James.Burris@bunge.com; Marr, Bill <Bill.Marr@illinois.gov>; Schnepf, Jason <Jason.Schnepf@Illinois.gov>; Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Cc:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>; Nation, Trent <Trent.Nation@Illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@Illinois.gov>  
**Subject:** Expedited Agreement Bunge North America, Inc 003005AAI 22110001

Good afternoon,

Attached is the expedited permit agreement between Bunge North America Inc and the Agency with an agreed issuance date of 12/22/22. Please have the appropriate person sign the last page and return the signed agreement to the agency address shown in Section 13. We received your expedited fee (\$40,000) on 11/03/2022 and a check for (\$500) on 11/03/22. We must receive the standard fee (\$9,500) and the signed agreement no later than 12/09/22 in order to meet the deadline. Prior to returning the documents back to the Agency, scan and email a copy of the signed agreement and check to me for our records. Also, please send a reply to ensure receipt of this email.

Thank you,

*Amy Adelman*, Office Coordinator

IL Environmental Protection Agency, Bureau of Air  
 1021 N Grand Ave E  
 Springfield, IL 62794  
 Email: [Amy.M.Adelman@illinois.gov](mailto:Amy.M.Adelman@illinois.gov)  
 Main: (217) 785- 1705 | Direct: (217) 558- 7374





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**Rowell, Daniel**

---

**From:** Adelman, Amy M.  
**Sent:** Friday, December 2, 2022 1:39 PM  
**To:** Rowell, Daniel  
**Cc:** Schnepf, Jason; Walton, Marlisha M.; Rothenberg, Marcus A.; Nation, Trent  
**Subject:** RE: Expedited Agreement Bunge North America, Inc 003005AAI 22110001  
**Attachments:** FW: Bunge (22110001); RE: New Expedited Construction ; FW: Bunge (22110001)

Good afternoon,

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Thank you,

*Amy Adelman*, Office Coordinator

IL Environmental Protection Agency, Bureau of Air  
 1021 N Grand Ave E  
 Springfield, IL 62794  
 Email: [Amy.M.Adelman@illinois.gov](mailto:Amy.M.Adelman@illinois.gov)  
 Main: (217) 785- 1705 | Direct: (217) 558- 7374



**From:** Rowell, Daniel <[Daniel.Rowell@illinois.gov](mailto:Daniel.Rowell@illinois.gov)>  
**Sent:** Friday, December 2, 2022 1:33 PM  
**To:** Adelman, Amy M. <[Amy.M.Adelman@Illinois.gov](mailto:Amy.M.Adelman@Illinois.gov)>  
**Cc:** Schnepf, Jason <[Jason.Schnepf@Illinois.gov](mailto:Jason.Schnepf@Illinois.gov)>; Walton, Marlisha M. <[Marlisha.Walton@Illinois.gov](mailto:Marlisha.Walton@Illinois.gov)>; Rothenberg, Marcus A. <[Marcus.A.Rothenberg@Illinois.gov](mailto:Marcus.A.Rothenberg@Illinois.gov)>; Nation, Trent <[Trent.Nation@Illinois.gov](mailto:Trent.Nation@Illinois.gov)>  
**Subject:** RE: Expedited Agreement Bunge North America, Inc 003005AAI 22110001

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**From:** Adelman, Amy M. <[Amy.M.Adelman@Illinois.gov](mailto:Amy.M.Adelman@Illinois.gov)>  
**Sent:** Friday, December 2, 2022 1:08 PM  
**To:** [James.Burris@bunge.com](mailto:James.Burris@bunge.com); Marr, Bill <[Bill.Marr@illinois.gov](mailto:Bill.Marr@illinois.gov)>; Schnepf, Jason <[Jason.Schnepf@Illinois.gov](mailto:Jason.Schnepf@Illinois.gov)>; Rowell, Daniel <[Daniel.Rowell@illinois.gov](mailto:Daniel.Rowell@illinois.gov)>  
**Cc:** Walton, Marlisha M. <[Marlisha.Walton@Illinois.gov](mailto:Marlisha.Walton@Illinois.gov)>; Nation, Trent <[Trent.Nation@Illinois.gov](mailto:Trent.Nation@Illinois.gov)>; Rothenberg,

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**Rowell, Daniel**

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**Cc:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>; Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@Illinois.gov>; Nation, Trent <Trent.Nation@Illinois.gov>  
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**Cc:** Walton, Marlisha M. <[Marlisha.Walton@Illinois.gov](mailto:Marlisha.Walton@Illinois.gov)>; Nation, Trent <[Trent.Nation@Illinois.gov](mailto:Trent.Nation@Illinois.gov)>; Rothenberg, Marcus A. <[Marcus.A.Rothenberg@Illinois.gov](mailto:Marcus.A.Rothenberg@Illinois.gov)>  
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**Rowell, Daniel**

---

**From:** Adelman, Amy M.  
**Sent:** Friday, December 2, 2022 2:12 PM  
**To:** James.Burris@bunge.com; Marr, Bill; Schnepf, Jason; Rowell, Daniel  
**Cc:** Walton, Marlisha M.; Nation, Trent; Rothenberg, Marcus A.  
**Subject:** RE: Expedited Agreement Bunge North America, Inc 003005AAI 22110001

**Importance:** High

Good afternoon,

Apologies— Correction, on the same day the check for the expedited fee of \$40,000 was received for 003005AAI another check for \$500 was received for a different site.

We must receive the standard fee (\$10,000) and the signed agreement no later than 12/09/22 in order to meet the deadline.

Thank you,

*Amy Adelman*, Office Coordinator

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 Email: [Amy.M.Adelman@illinois.gov](mailto:Amy.M.Adelman@illinois.gov)  
 Main: (217) 785- 1705 | Direct: (217) 558- 7374



**From:** Adelman, Amy M.  
**Sent:** Friday, December 2, 2022 1:08 PM  
**To:** James.Burris@bunge.com; Marr, Bill <Bill.Marr@illinois.gov>; Schnepf, Jason <Jason.Schnepf@illinois.gov>; Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Cc:** Walton, Marlisha M. <Marlisha.Walton@illinois.gov>; Nation, Trent <Trent.Nation@illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@illinois.gov>  
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**Rowell, Daniel**

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**Sent:** Friday, December 2, 2022 2:16 PM  
**To:** Rowell, Daniel; Walton, Marlisha M.  
**Cc:** Schnepf, Jason; Rothenberg, Marcus A.; Nation, Trent  
**Subject:** RE: Expedited Agreement Bunge North America, Inc 003005AAI 22110001

Good afternoon.

I am unsure. It looks like it was corrected with white out on the actual paper version of the application. But the PDF I received did not reflect the correction. I have sent out an email advising that \$10,000 is due. Sorry for all of the confusion!

Thank you,

*Amy Adelman*, Office Coordinator

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**Rowell, Daniel**

---

**From:** Walton, Marlisha M.  
**Sent:** Monday, December 5, 2022 7:30 AM  
**To:** Rowell, Daniel; Adelman, Amy M.  
**Cc:** Schnepf, Jason; Rothenberg, Marcus A.; Nation, Trent  
**Subject:** RE: Expedited Agreement Bunge North America, Inc 003005AAI 22110001

Sorry about that Daniel!  
 That was completely my fault.  
 I was looking at the wrong number.

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Friday, December 2, 2022 2:08 PM  
**To:** Adelman, Amy M. <Amy.M.Adelman@Illinois.gov>; Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>  
**Cc:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@Illinois.gov>; Nation, Trent <Trent.Nation@Illinois.gov>  
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**Rowell, Daniel**

---

**From:** James Burris <James.Burris@bunge.com>  
**Sent:** Tuesday, December 6, 2022 8:19 AM  
**To:** Rowell, Daniel  
**Subject:** [External] Bunge - Cleaning/Drying Project - Past Actual to Future Potential Emission Calculations  
**Attachments:** Cairo - Bean Cleaning and Drying Project - Emission Summary - Dec 2022.xlsx; Cairo - Permit Application Project Addendum - Dec 6, 2022.docx

Daniel,

Attached are two files; 1) a word document with a summary of the past actual to future potential emission calculations and 2) a spreadsheet with the calculations used.

We are processing the expedited contract and additional \$10,000 fee and will be sending that back this week.

Please let me know if you need anything further.

Thank you,

**Jim Burris, PE**

Phone: 314-292-2937

Mobile: 314-308-3904

1391 Timberlake Manor Parkway  
Chesterfield, MO 63017

**BUNGE**

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**Bunge North America, Inc. – Cairo, IL**  
**Source ID No. 003005AAI**  
**Bean Cleaning/Drying**  
**Construction Permit Application – Addendum**  
**December 6, 2022**

On November 10, 2022, Illinois EPA sent a list of comments and questions to Bunge related to the air construction permit application submitted for the replacement of the facility's grain cleaning and drying equipment. During subsequent phone conversions most of the questions and comments were addressed. The comments and questions remaining to be addressed are related to an evaluation of any increase in emissions as they related to PSD. That is, showing that the difference between base line actual emissions and potential to emit of the proposed grain cleaning and drying equipment and existing equipment being replaced do not exceed major modification significance levels. This evaluation is presented below.

**Baseline Actual Emissions to Future Potential Emissions**

The equipment used to clean and dry the beans has reached the end of its use life and needs to be replaced. Baseline emissions for this equipment was evaluated using historic emissions data from January 2015 through December 2021.

Because emissions from the dryers is based on bean throughput and natural gas consumption the 24-month period with the highest bean throughput was used as the baseline period. This period was from February 2015 through January 2017. The 24-month values used in past actual emission calculations are as follows:

- 2,431,234 tons of beans dried
- 472.5 MMCF of natural gas burned in the dryers
- 8,104.1 hours of cleaning equipment operation

The cleaning equipment baghouse operating for 8,104.1 hours over 24-months emitted the following particulate emissions converted ton an annual emission rate.

**Cleaning Equipment Baghouse Past Actual Emissions**

<b>Emission Unit ID</b>	<b>Emission Unit Description</b>	<b>PM (tpy)</b>	<b>PM10 (tpy)</b>	<b>PM2.5 (tpy)</b>
CD-1 old	Bean Cleaning Old	0.21	0.21	0.11

The dryers with a bean throughput of 2,431,234 tons of bean and natural gas combustion of 472.5 MMCF emitted the pollutants in the table below converted ton an annual emission rate.

**Grain Dryer Past Actual Emissions**

<b>Emission Unit ID</b>	<b>Emission Unit Description</b>	<b>PM (tpy)</b>	<b>PM10 (tpy)</b>	<b>PM2.5 (tpy)</b>	<b>SO<sub>2</sub> (tpy)</b>	<b>NO<sub>x</sub> (tpy)</b>	<b>CO (tpy)</b>	<b>VOC (tpy)</b>
CD-3 & 4 old	Bean Dryers Old	53.49	26.74	4.55	0.07	11.81	9.92	0.65



Comparing past actual emissions to future potential emissions give the following change in emissions.

Summary of Past Actual to Future Potential Emissions

<b>Emission Unit ID</b>	<b>Emission Unit Description</b>	<b>PM (tpy)</b>	<b>PM10 (tpy)</b>	<b>PM2.5 (tpy)</b>	<b>SO<sub>2</sub> (tpy)</b>	<b>NO<sub>x</sub> (tpy)</b>	<b>CO (tpy)</b>	<b>VOC (tpy)</b>
CD-1 old	Bean Cleaning Old	-0.21	-0.21	-0.11				
CD-1 new	Bean Cleaning New	1.95	1.95	0.98				
CD-3 & 4 old	Bean Dryers Old	-53.49	-26.74	-4.55	-0.07	-11.81	-9.92	-0.65
CD-3A, 3B, 3C, 4A, 4B & 4C new	Bean Dryers New	63.40	31.70	5.39	0.10	15.92	13.38	0.88
	<b>Total Increase or Decrease</b>	<b>11.66</b>	<b>6.70</b>	<b>1.71</b>	<b>0.02</b>	<b>4.11</b>	<b>3.45</b>	<b>0.23</b>

**Bean Dryers - new****CD-3A, 3B, 3C, 4A, 4B & 4C new****Particulate Emissions**

Design Rate	303.6 tons/hr	
Annual Average Rate	164.5 tons/hr	bottlenecked rate
Capture Efficiency	0 %	
Operation	8,760 hours/year	
Annual Throughput	1,441,020 ton/year	bottlenecked rate

**Emission Factors**

Uncontrolled		Units	Basis
PM	0.088	lb/ton	1990 Stack Test
PM10	0.0440	lb/ton	50% of PM AP-42, Section 9.9
PM2.5	0.0075	lb/ton	17% of PM10 AP-42, Section 9.9

	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)
<b>Uncontrolled Potential</b>	26.72	13.36	2.27	63.40	31.70	5.39

**Combustion Emissions**

Heat Content of Fuel	1,000 MMBtu/MMCF	Natural Gas
Heat Use	0.221 MMBtu/ton	
Maximum Firing Rate	0.067 MMCF/hr	
Average Firing Rate	0.036 MMCF/hr	
Annual Firing Rate	318.5 MMCF/yr	total dryer natural gas burned in both dryers
Operation	8,760 hours/year	

**Emission Factors (lb/MMCF)**

PM	PM10	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	n-hexane
-	-	-	0.6	100.0	84	5.5	1.8

Emission factors for natural gas combustion are from AP42, Tables 1.4-1,-2,-3, July 1998

PM emissions are covered in dryer PM emissions

	PM	PM10	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	n-hexane
<b>Max Hourly (lb/hr)</b>	-	-	-	0.040	6.71	5.64	0.37	0.12
<b>Max Annual (tpy)</b>	-	-	-	0.10	15.92	13.38	0.88	0.29

**Greenhouse Gasses**

Emission Factors (lb/MMCF)			Global Warming Potential		
CO <sub>2</sub>	N <sub>2</sub> O	Methane	CO <sub>2</sub>	N <sub>2</sub> O	Methane
120,000	0.64	2.3	1.0	310	21

	CO <sub>2</sub>	N <sub>2</sub> O	Methane	CO <sub>2e</sub>
<b>Max Hourly (lb/hr)</b>	8,051	0.043	0.154	8,068
<b>Max Annual (tpy)</b>	19,108	0.102	0.366	19,147

Bunge North America, Inc.  
Cairo, IL  
Facility ID 003005AAI

Potential Emissions Summary

EU#	Emission Unit Description	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)	SO <sub>2</sub> (ton/yr)	NO <sub>x</sub> (ton/yr)	CO (ton/yr)	VOC (ton/yr)	n-hexane (ton/yr)	CO <sub>2</sub> (ton/yr)	N <sub>2</sub> O (ton/yr)	Methane (ton/yr)	CO <sub>2e</sub> (ton/yr)
CD-1 old	Bean Cleaning - old	-60.04	-15.21	-2.56									
CD-1 new	Bean Cleaning - new	60.04	15.21	2.56									
CD-3 & 4 old	Bean Dryers - old	-63.40	-31.70	-5.39	-0.10	-15.92	-13.38	-0.88	-0.29	-19,108	-0.10	-0.37	-19,147
CD-3A, 3B, 3C, 4A, 4B & 4C new	Bean Dryers - new	63.40	31.70	5.39	0.10	15.92	13.38	0.88	0.29	19,108	0.10	0.37	19,147
Total Increase/decrease		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Past Actual to Potential Emissions Summary

EU#	Emission Unit Description	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)	SO <sub>2</sub> (ton/yr)	NO <sub>x</sub> (ton/yr)	CO (ton/yr)	VOC (ton/yr)
CD-1 old	Bean Cleaning - old	-0.21	-0.21	-0.11				
CD-1 new	Bean Cleaning - new	1.95	1.95	0.98				
CD-3 & 4 old	Bean Dryers - old	-53.49	-26.74	-4.55	-0.07	-11.81	-9.92	-0.65
CD-3A, 3B, 3C, 4A, 4B & 4C new	Bean Dryers - new	63.40	31.70	5.39	0.10	15.92	13.38	0.88
Total Increase/decrease		11.66	6.70	1.71	0.02	4.11	3.45	0.23

Bunge North America, Inc.  
Cairo, IL  
Facility ID 003005AAI

PTE Emission Calculations

Existing Plant Capacity (bu/day)	131,600	
Existing Plant Capacity (ton/day)	3,948	
Existing Plant Capacity (ton/yr)	1,601,133	dirty beans (10% fm)
Existing Plant Capacity (ton/yr)	1,441,020	cleaned beans
Hours of Operation (hours/yr)	8,760	plant/extraction
Days of Operation (days)	365	

Fuel Use/Combustion

Dryer Natural Gas (MMBtu/ton)	0.221	highest expected MMBtu/ton beans
Dryer Natural Gas (MMCF/yr)	318.5	assumes heat content of natural gas is 1000 Btu/cf

Bean Cleaning - old

CD-1 old

Design Cleaning Rate	432 tons/hr	
Annual Average Cleaning Rate	164.5 tons/hr	bottlenecked rate
Capture Efficiency	100 %	all enclosed and aspirated
Operation	8,760 hours/year	
Annual Throughput	1,601,133 ton/year	beans received before cleaning

Emission Factors

		<u>Units</u>	<u>Basis</u>
PM	0.075	lb/ton	AP-42, Table 9.9.1-1
PM10	0.0190	lb/ton	AP-42, Table 9.9.1-1
PM2.5	0.0032	lb/ton	AP-42, Table 9.9.1-1

	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)
<b>Uncontrolled Potential</b>	32.40	8.21	1.38	60.0	15.2	2.6

Bean Cleaning - new

CD-1 new

Design Rate	250 tons/hr	
Annual Average Rate	164.5 tons/hr	bottlenecked rate
Capture Efficiency	100 %	all enclosed and aspirated
Operation	8,760 hours/year	
Annual Throughput	1,601,133 ton/year	beans received before cleaning
PM/PM10 Grain Loading	0.002 grain/dscf	expected baghouse grainloading
PM2.5 Grain Loading	0.001 grain/dscf	PM2.5 is 50% PM10 conservatively based on stack test data
Exhaust Fan Flow Rate	26,000 acfm	
Exhaust Fan Flow Rate	26,000 dscfm	

Emission Factors

		<u>Units</u>	<u>Basis</u>
PM	0.075	lb/ton	AP-42, Table 9.9.1-1
PM10	0.0190	lb/ton	AP-42, Table 9.9.1-1
PM2.5	0.0032	lb/ton	AP-42, Table 9.9.1-1

	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)
<b>Uncontrolled Potential</b>	32.40	8.21	1.38	60.0	15.2	2.6
<b>Baghouse Emissions</b>	0.45	0.45	0.22	1.95	1.95	0.98

**Bean Dryers - old****CD-3 & 4 old****Particulate Emissions**

Design Rate	250 tons/hr	
Annual Average Rate	164.5 tons/hr	bottlenecked rate
Capture Efficiency	0 %	
Operation	8,760 hours/year	
Annual Throughput	1,441,020 ton/year	bottlenecked rate

**Emission Factors**

Uncontrolled		<u>Units</u>	<u>Basis</u>
PM	0.088	lb/ton	1990 Stack Test
PM10	0.0440	lb/ton	50% of PM AP-42, Section 9.9
PM2.5	0.0075	lb/ton	50% of PM AP-42, Section 9.10

	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)
<b>Uncontrolled Potential</b>	22.00	11.00	1.87	63.40	31.70	5.39

**Combustion Emissions**

Heat Content of Fuel	1,000 MMBtu/MMCF	Natural Gas
Heat Use	0.221 MMBtu/ton	
Maximum Firing Rate	0.055 MMCF/hr	
Average Firing Rate	0.036 MMCF/hr	
Annual Firing Rate	318.5 MMCF/yr	total dryer natural gas burned in both dryers
Operation	8,760 hours/year	

**Emission Factors (lb/MMCF)**

PM	PM10	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	n-hexane
-	-	-	0.6	100.0	84	5.5	1.8

Emission factors for natural gas combustion are from AP42, Tables 1.4-1,-2,-3, July 1998

PM emissions are covered in dryer PM emissions

	<u>PM</u>	<u>PM10</u>	<u>PM2.5</u>	<u>SO<sub>2</sub></u>	<u>NO<sub>x</sub></u>	<u>CO</u>	<u>VOC</u>	<u>n-hexane</u>
<b>Max Hourly (lb/hr)</b>	-	-	-	0.033	5.53	4.64	0.30	0.10
<b>Max Annual (tpy)</b>	-	-	-	0.10	15.92	13.38	0.88	0.29

**Greenhouse Gasses****Emission Factors (lb/MMCF)****Global Warming Potential**

CO <sub>2</sub>	N <sub>2</sub> O	Methane	CO <sub>2</sub>	N <sub>2</sub> O	Methane
120,000	0.64	2.3	1.0	310	21

	<u>CO<sub>2</sub></u>	<u>N<sub>2</sub>O</u>	<u>Methane</u>	<u>CO<sub>2</sub>e</u>
<b>Max Hourly (lb/hr)</b>	6,630	0.035	0.127	6,644
<b>Max Annual (tpy)</b>	19,108	0.102	0.366	19,147



**Bean Dryers - new****CD-3A, 3B, 3C, 4A, 4B & 4C new****Particulate Emissions**

Design Rate	303.6 tons/hr	
Annual Average Rate	164.5 tons/hr	bottlenecked rate
Capture Efficiency	0 %	
Operation	8,760 hours/year	
Annual Throughput	1,441,020 ton/year	bottlenecked rate

**Emission Factors**

Uncontrolled		<u>Units</u>	<u>Basis</u>
PM	0.088	lb/ton	1990 Stack Test
PM10	0.0440	lb/ton	50% of PM AP-42, Section 9.9
PM2.5	0.0075	lb/ton	17% of PM10 AP-42, Section 9.9

	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)
<b>Uncontrolled Potential</b>	26.72	13.36	2.27	63.40	31.70	5.39

**Combustion Emissions**

Heat Content of Fuel	1,000 MMBtu/MMCF	Natural Gas
Heat Use	0.221 MMBtu/ton	
Maximum Firing Rate	0.067 MMCF/hr	
Average Firing Rate	0.036 MMCF/hr	
Annual Firing Rate	318.5 MMCF/yr	total dryer natural gas burned in both dryers
Operation	8,760 hours/year	

## Emission Factors (lb/MMCF)

PM	PM10	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	n-hexane
-	-	-	0.6	100.0	84	5.5	1.8

Emission factors for natural gas combustion are from AP42, Tables 1.4-1,-2,-3, July 1998

PM emissions are covered in dryer PM emissions

	<u>PM</u>	<u>PM10</u>	<u>PM2.5</u>	<u>SO<sub>2</sub></u>	<u>NO<sub>x</sub></u>	<u>CO</u>	<u>VOC</u>	<u>n-hexane</u>
<b>Max Hourly (lb/hr)</b>	-	-	-	0.040	6.71	5.64	0.37	0.12
<b>Max Annual (tpy)</b>	-	-	-	0.10	15.92	13.38	0.88	0.29

## Greenhouse Gasses

## Emission Factors (lb/MMCF)

## Global Warming Potential

CO <sub>2</sub>	N <sub>2</sub> O	Methane	CO <sub>2</sub>	N <sub>2</sub> O	Methane
120,000	0.64	2.3	1.0	310	21

	<u>CO<sub>2</sub></u>	<u>N<sub>2</sub>O</u>	<u>Methane</u>	<u>CO<sub>2e</sub></u>
<b>Max Hourly (lb/hr)</b>	8,051	0.043	0.154	8,068
<b>Max Annual (tpy)</b>	19,108	0.102	0.366	19,147

	MMCF	MMBtu	SB ton/mon	MMBtu/ton	mon avg	MMCF/yr	MMCF/24-mon	ton/yr	hr/mon	hr/24-mon	SB/24-mon	CD-1 Old	PM (tpy)	PM10 (tpy)	PM2.5 (tpy)	CD-1 New	PM (tpy)	PM10 (tpy)	PM2.5 (tpy)	Increase Increase CD1 Increase	PM (tpy)	PM10 (tpy)	PM2.5 (tpy)	
Jan-15	21.204	21,204	105,159	0.202					350.5															
Feb-15	21.229	21,229	110,387	0.192					368.0															
Mar-15	21.009	21,009	119,662	0.176					398.9															
Apr-15	17.11	17,110	110,425	0.155					368.1															
May-15	75.53	75,530	63,966	1.181					213.2															
Jun-15	14.856	14,856	112,886	0.132					378.3															
Jul-15	92.67	92,670	75,911	1.221					253.0															
Aug-15	9.464	9,464	97,748	0.097					325.8															
Sep-15	12.176	12,176	94,921	0.128					316.4															
Oct-15	15.278	15,278	115,007	0.133					383.4															
Nov-15	14.226	14,226	112,371	0.127					374.6															
Dec-15	16.609	16,609	103,410	0.161		331.361	1,221,853		344.7															
Jan-16	12.124	12,124	87,217	0.139		322.281	1,203,911		190.7															
Feb-16	14.024	14,024	106,979	0.131		315.076	1,200,503		356.6															
Mar-16	15.816	15,816	110,732	0.143		309.883	1,191,573		369.1															
Apr-16	10.986	10,986	103,319	0.106		303.759	1,184,467		344.4															
May-16	11.383	11,383	112,109	0.102		239.612	1,232,610		373.7															
Jun-16	9.274	9,274	84,266	0.110		234.030	1,203,990		280.9															
Jul-16	1.97	1,970	31,738	0.062		143.330	1,159,817		105.8															
Aug-16	9.923	9,923	107,658	0.092		143.789	1,169,727		358.9															
Sep-16	12.28	12,280	103,554	0.119		143.893	1,178,360		345.2															
Oct-16	17.643	17,643	116,973	0.151		146.258	1,180,326		389.9															
Nov-16	19.619	19,619	116,608	0.168		151.651	1,184,563		388.7															
Dec-16	18.502	18,502	111,109	0.167		153.544	484.9	1,192,262	370.4	8047.1	2,414,115		0.21	0.21	0.10									
Jan-17	8.792	8,792	122,278	0.072		150.212	472.5	1,227,323	407.6	8104.1	2,431,234		0.21	0.21	0.11									
Feb-17	8.040	8,040	95,707	0.084		144.228	459.3	1,216,051	319.0	8055.2	2,416,554		0.21	0.21	0.10									
Mar-17	7.436	7,436	106,772	0.070	0.075	135.848	445.7	1,212,091	355.9	8012.2	2,403,664		0.21	0.21	0.10									
Apr-17	13.115	13,115	107,819	0.122	0.092	137.977	441.7	1,216,591	359.4	8003.5	2,401,058		0.21	0.21	0.10									
May-17	14.995	14,995	76,928	0.195	0.129	141.589	381.2	1,181,410	256.4	8046.7	2,414,020		0.21	0.21	0.10									
Jun-17	12.658	12,658	0		0.158	144.973	379.0	1,097,144	0.0	7670.4	2,301,134		0.20	0.20	0.10									
Jul-17	10.689	10,689	59,910	0.178	0.187	153.692	297.0	1,125,316	199.7	7617.1	2,285,133		0.20	0.20	0.10									
Aug-17	9.907	9,907	107,423	0.092	0.135	153.676	297.5	1,125,081	358.1	7649.4	2,294,808		0.20	0.20	0.10									
Sep-17	11.207	11,207	102,431	0.109	0.127	152.603	296.5	1,123,958	341.4	7674.4	2,302,318		0.20	0.20	0.10									
Oct-17	9.235	9,235	116,852	0.079	0.094	144.195	290.5	1,123,837	389.5	7680.5	2,304,163		0.20	0.20	0.10									
Nov-17	10.400	10,400	108,106	0.096	0.095	134.976	286.6	1,115,335	360.4	7666.3	2,299,898		0.20	0.20	0.10									
Dec-17	4.208	4,208	107,235	0.039	0.071	120.687	274.2	1,111,461	357.5	7679.1	2,303,723		0.20	0.20	0.10									
Jan-18	9.201	9,201	102,298	0.090	0.075	121.091	271.3	1,091,481	341.0	7729.3	2,318,804		0.20	0.20	0.10									
Feb-18	8.258	8,258	85,795	0.096	0.075	121.309	265.5	1,081,569	286.0	7658.7	2,297,620		0.20	0.20	0.10									
Mar-18	9.958	9,958	83,723	0.119	0.102	123.831	259.7	1,058,520	279.1	7568.7	2,270,611		0.20	0.20	0.10									
Apr-18	17.595	17,595	96,186	0.183	0.133	128.311	266.3	1,046,887	320.6	7544.9	2,263,478		0.20	0.20	0.10									
May-18	14.859	14,859	110,797	0.134	0.145	128.175	269.8	1,080,756	369.3	7540.6	2,262,166		0.20	0.20	0.10									
Jun-18	15.311	15,311	79,843	0.192	0.170	130.828	275.8	1,160,599	266.1	7525.8	2,257,743		0.20	0.20	0.10									
Jul-18	12.078	12,078	78,481	0.154	0.160	132.217	285.9	1,179,170	261.6	7681.6	2,304,486		0.20	0.20	0.10									
Aug-18	10.777	10,777	66,597	0.162	0.169	133.087	286.8	1,138,344	222.0	7544.8	2,263,425		0.20	0.20	0.10									
Sep-18	11.565	11,565	115,061	0.101	0.139	133.445	286.0	1,150,974	383.5	7583.1	2,274,932		0.20	0.20	0.10									
Oct-18	10.755	10,755	103,237	0.104	0.122	134.965	279.2	1,137,359	344.1	7537.3	2,261,196		0.20	0.20	0.10									
Nov-18	11.684	11,684	111,897	0.104	0.103	136.249	271.2	1,141,150	373.0	7521.6	2,256,485		0.19	0.19	0.10									

Dec-18	9,943	9,943	111,549	0.089	0.099	141,984	262.7	1,145,464	371.8	7523.1	2,256,925	0.20	0.20	0.10
Jan-19	21,700	21,700	109,897	0.197	0.130	154,483	275.6	1,153,063	366.3	7481.8	2,244,544	0.19	0.19	0.10
Feb-19	17,950	17,950	89,011	0.202	0.163	164,175	285.5	1,156,279	296.7	7459.5	2,237,848	0.19	0.19	0.10
Mar-19	14,749	14,749	107,572	0.137	0.179	168,966	292.8	1,180,228	358.9	7462.5	2,238,748	0.19	0.19	0.10
Apr-19	22,711	22,711	102,981	0.221	0.186	174,082	302.4	1,187,023	343.3	7446.4	2,233,910	0.19	0.19	0.10
May-19	13,540	13,540	110,847	0.122	0.160	172,763	300.9	1,187,073	369.5	7559.4	2,267,829	0.20	0.20	0.10
Jun-19	9,490	9,490	90,598	0.105	0.149	166,942	297.8	1,197,828	302.0	7861.4	2,358,427	0.20	0.20	0.10
Jul-19	11,010	11,010	107,151	0.103	0.110	165,874	298.1	1,226,498	357.2	8018.9	2,405,668	0.21	0.21	0.10
Aug-19	10,490	10,490	98,379	0.107	0.105	165,587	298.7	1,258,280	327.9	7988.7	2,396,624	0.21	0.21	0.10
Sep-19	44,500	44,500	37,604		0.105	198,522	332.0	1,180,823	125.3	7772.7	2,331,797	0.20	0.20	0.10
Oct-19	12,110	12,110	89,753	0.135	0.121	199,877	334.8	1,167,339	299.2	7682.3	2,304,698	0.20	0.20	0.10
Nov-19	18,520	18,520	105,469	0.176	0.155	206,713	341.0	1,160,911	351.6	7673.5	2,302,061	0.20	0.20	0.10
Dec-19	19,385	19,385	111,580	0.174	0.161	216,155	358.1	1,160,942	371.3	7688.0	2,306,406	0.20	0.20	0.10
Jan-20	19,054	19,054	117,064	0.163	0.171	213,509	368.0	1,168,109	350.2	7737.7	2,321,172	0.20	0.20	0.10
Feb-20	14,405	14,405	104,670	0.138	0.158	209,964	374.1	1,183,768	348.9	7800.2	2,340,047	0.20	0.20	0.10
Mar-20	14,767	14,767	108,291	0.136	0.146	209,982	378.9	1,184,387	361.0	7882.1	2,364,615	0.20	0.20	0.10
Apr-20	12,214	12,214	103,570	0.118	0.131	199,485	373.6	1,184,976	345.2	7906.7	2,371,999	0.20	0.20	0.10
May-20	5,802	5,802	60,579	0.096	0.111	191,747	364.5	1,134,708	201.9	7739.3	2,321,781	0.20	0.20	0.10
Jun-20	12,349	12,349	107,792	0.115	0.109	194,606	361.5	1,151,902	359.3	7832.4	2,349,730	0.20	0.20	0.10
Jul-20	11,489	11,489	114,437	0.100	0.104	195,085	361.0	1,159,188	381.5	7952.3	2,385,686	0.21	0.21	0.10
Aug-20	10,288	10,288	107,901	0.095	0.103	194,883	360.5	1,168,710	359.7	8090.0	2,426,990	0.21	0.21	0.10
Sep-20	10,726	10,726	89,222	0.120	0.105	161,109	359.6	1,220,328	297.4	8003.8	2,401,151	0.21	0.21	0.10
Oct-20	14,914	14,914	111,818	0.133	0.116	163,913	363.8	1,242,393	372.7	8032.4	2,409,732	0.21	0.21	0.10
Nov-20	16,978	16,978	113,965	0.149	0.134	162,371	369.1	1,250,890	379.9	8039.3	2,411,801	0.21	0.21	0.10
Dec-20	15,913	15,913	118,973	0.134	0.139	158,899	375.1	1,258,283	396.6	8064.1	2,419,225	0.21	0.21	0.10
Jan-21	12,705	12,705	113,996	0.111	0.131	152,550	366.1	1,255,315	380.0	8077.7	2,423,324	0.21	0.21	0.10
Feb-21	9,77	9,770	78,653	0.124	0.123	147,915	357.9	1,229,198	262.2	8043.7	2,412,966	0.21	0.21	0.10
Mar-21	11,802	11,802	96,201	0.123	0.119	144,950	354.9	1,217,108	320.7	8005.0	2,401,495	0.21	0.21	0.10
Apr-21	9,034	9,034	88,933	0.102	0.116	141,770	341.1	1,202,471	296.4	7958.2	2,387,447	0.21	0.21	0.10
May-21	9,134	9,134	99,998	0.091	0.105	145,102	336.8	1,241,890	333.3	7922.0	2,376,598	0.21	0.21	0.10
Jun-21	9,992	9,992	103,430	0.097	0.097	142,745	337.4	1,237,528	344.8	7964.8	2,389,430	0.21	0.21	0.10
Jul-21	5,178	5,178	73,118	0.071	0.086	136,434	331.5	1,196,209	243.7	7851.3	2,355,397	0.20	0.20	0.10
Aug-21	4,182	4,182	50,717	0.082	0.083	130,328	325.2	1,139,025	169.1	7692.5	2,307,735	0.20	0.20	0.10
Sep-21	7,115	7,115	82,463	0.086	0.080	126,717	287.8	1,132,266	274.9	7842.0	2,352,594	0.20	0.20	0.10
Oct-21	10,916	10,916	104,987	0.104	0.091	122,719	286.6	1,125,435	350.0	7892.8	2,367,828	0.20	0.20	0.10
Nov-21	16,103	16,103	110,362	0.146	0.112	121,844	284.2	1,121,831	367.9	7909.1	2,372,721	0.21	0.21	0.10
Dec-21	16,784	16,784	112,225	0.150	0.133	122,715	281.6	1,115,083	374.1	7911.2	2,373,366	0.21	0.21	0.10

Min	120,682	259,679	1,046,887											
Max	122,281	484,905	1,258,283							8,104	2,431,284	0.21	0.21	0.11
Avg	0.123	bu/day	ton/yr	ton/yr			177.0							
Max	0.221	131,600	1,441,020	1,441,020			318.5	MMCF/yr		43150000	1294500			
Min	0.039													
Btu/lb H2O	3,341	lbs H2O/yr	53,125,979	53,125,979	213.8	MMCF/yr								
			39,868,220	39,868,220										
			48,034,000	525,972,300										

PM	PM10	PM2.5	SO2	NOx	CO	VOC
(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)
11.66	6.70	1.71	0.02	4.11	3.45	0.23

	1990 stack test & AP42				1990 stack test & AP42				AP42				AP42															
	0.088	0.044	0.00748		0.088	0.044	0.00748	Increase				0.6	100	84	5.5		0.6	100	84	5.5	Increase							
	CD-3/4	PM	PM10	PM2.5	CD-3/4	PM	PM10	PM2.5	CD3/4	PM	PM10	PM2.5	CD-3/4	SO2	NOx	CO	VOC	CD-3/4	SO2	NOx	CO	VOC	CD3/4	SO2	NOx	CO	VOC	
Old	(tpy)	(tpy)	(tpy)	new	(tpy)	(tpy)	(tpy)	Increase	(tpy)	(tpy)	(tpy)	Old	(tpy)	(tpy)	(tpy)	(tpy)	New	(tpy)	(tpy)	(tpy)	(tpy)	Increase	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	
Jan-15																												
Feb-15																												
Mar-15																												
Apr-15																												
May-15																												
Jun-15																												
Jul-15																												
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Jun-16																												
Jul-16																												
Aug-16																												
Sep-16																												
Oct-16																												
Nov-16																												
Dec-16		53.1	26.6	4.5									0.07	12.12	10.18	0.67		0.07	12.12	10.18	0.67							
Jan-17		53.5	26.7	4.5									0.07	11.81	9.92	0.65		0.07	11.81	9.92	0.65							
Feb-17		53.2	26.6	4.5									0.07	11.48	9.65	0.63		0.07	11.48	9.65	0.63							
Mar-17		52.9	26.4	4.5									0.07	11.14	9.36	0.61		0.07	11.14	9.36	0.61							
Apr-17		52.8	26.4	4.5									0.07	11.04	9.28	0.61		0.07	11.04	9.28	0.61							
May-17		53.1	26.6	4.5									0.06	9.53	8.01	0.52		0.06	9.53	8.01	0.52							
Jun-17		50.6	25.3	4.3									0.06	9.48	7.96	0.52		0.06	9.48	7.96	0.52							
Jul-17		50.3	25.1	4.3									0.04	7.43	6.24	0.41		0.04	7.43	6.24	0.41							
Aug-17		50.5	25.2	4.3									0.04	7.44	6.25	0.41		0.04	7.44	6.25	0.41							
Sep-17		50.7	25.3	4.3									0.04	7.41	6.23	0.41		0.04	7.41	6.23	0.41							
Oct-17		50.7	25.3	4.3									0.04	7.26	6.10	0.40		0.04	7.26	6.10	0.40							
Nov-17		50.6	25.3	4.3									0.04	7.17	6.02	0.39		0.04	7.17	6.02	0.39							
Dec-17		50.7	25.3	4.3									0.04	6.86	5.76	0.38		0.04	6.86	5.76	0.38							
Jan-18		51.0	25.5	4.3									0.04	6.78	5.70	0.37		0.04	6.78	5.70	0.37							
Feb-18		50.5	25.3	4.3									0.04	6.64	5.58	0.37		0.04	6.64	5.58	0.37							
Mar-18		50.0	25.0	4.2									0.04	6.49	5.45	0.36		0.04	6.49	5.45	0.36							
Apr-18		49.8	24.9	4.2									0.04	6.66	5.59	0.37		0.04	6.66	5.59	0.37							
May-18		49.8	24.9	4.2									0.04	6.74	5.67	0.37		0.04	6.74	5.67	0.37							
Jun-18		49.7	24.8	4.2									0.04	6.90	5.79	0.38		0.04	6.90	5.79	0.38							
Jul-18		50.7	25.3	4.3									0.04	7.15	6.00	0.39		0.04	7.15	6.00	0.39							
Aug-18		49.8	24.9	4.2									0.04	7.17	6.02	0.39		0.04	7.17	6.02	0.39							
Sep-18		50.0	25.0	4.3									0.04	7.15	6.01	0.39		0.04	7.15	6.01	0.39							
Oct-18		49.7	24.9	4.2									0.04	6.98	5.86	0.38		0.04	6.98	5.86	0.38							
Nov-18		49.6	24.8	4.2									0.04	6.78	5.70	0.37		0.04	6.78	5.70	0.37							

Dec-18	49.7	24.8	4.2	0.04	6.57	5.52	0.36	0.04	6.57	5.52	0.36								
Jan-19	49.4	24.7	4.2	0.04	6.89	5.79	0.38	0.04	6.89	5.79	0.38								
Feb-19	49.2	24.6	4.2	0.04	7.14	6.00	0.39	0.04	7.14	6.00	0.39								
Mar-19	49.3	24.6	4.2	0.04	7.32	6.15	0.40	0.04	7.32	6.15	0.40								
Apr-19	49.1	24.6	4.2	0.05	7.56	6.35	0.42	0.05	7.56	6.35	0.42								
May-19	49.9	24.9	4.2	0.05	7.52	6.32	0.41	0.05	7.52	6.32	0.41								
Jun-19	51.9	25.9	4.4	0.04	7.44	6.25	0.41	0.04	7.44	6.25	0.41								
Jul-19	52.9	26.5	4.5	0.04	7.45	6.26	0.41	0.04	7.45	6.26	0.41								
Aug-19	52.7	26.4	4.5	0.04	7.47	6.27	0.41	0.04	7.47	6.27	0.41								
Sep-19	51.3	25.6	4.4	0.05	8.30	6.97	0.46	0.05	8.30	6.97	0.46								
Oct-19	50.7	25.4	4.3	0.05	8.37	7.03	0.46	0.05	8.37	7.03	0.46								
Nov-19	50.6	25.3	4.3	0.05	8.57	7.20	0.47	0.05	8.57	7.20	0.47								
Dec-19	50.7	25.4	4.3	0.05	8.95	7.52	0.49	0.05	8.95	7.52	0.49								
Jan-20	51.1	25.5	4.3	0.06	9.20	7.73	0.51	0.06	9.20	7.73	0.51								
Feb-20	51.5	25.7	4.4	0.06	9.35	7.86	0.51	0.06	9.35	7.86	0.51								
Mar-20	52.0	26.0	4.4	0.06	9.47	7.96	0.52	0.06	9.47	7.96	0.52								
Apr-20	52.2	26.1	4.4	0.06	9.34	7.84	0.51	0.06	9.34	7.84	0.51								
May-20	51.1	25.5	4.3	0.05	9.11	7.65	0.50	0.05	9.11	7.65	0.50								
Jun-20	51.7	25.8	4.4	0.05	9.04	7.59	0.50	0.05	9.04	7.59	0.50								
Jul-20	52.5	26.2	4.5	0.05	9.02	7.58	0.50	0.05	9.02	7.58	0.50								
Aug-20	53.4	26.7	4.5	0.05	9.01	7.57	0.50	0.05	9.01	7.57	0.50								
Sep-20	52.8	26.4	4.5	0.05	8.99	7.55	0.49	0.05	8.99	7.55	0.49								
Oct-20	53.0	26.5	4.5	0.05	9.09	7.64	0.50	0.05	9.09	7.64	0.50								
Nov-20	53.1	26.5	4.5	0.06	9.23	7.75	0.51	0.06	9.23	7.75	0.51								
Dec-20	53.2	26.6	4.5	0.06	9.38	7.88	0.52	0.06	9.38	7.88	0.52								
Jan-21	53.3	26.7	4.5	0.05	9.15	7.69	0.50	0.05	9.15	7.69	0.50								
Feb-21	53.1	26.5	4.5	0.05	8.95	7.52	0.49	0.05	8.95	7.52	0.49								
Mar-21	52.8	26.4	4.5	0.05	8.87	7.45	0.49	0.05	8.87	7.45	0.49								
Apr-21	52.5	26.3	4.5	0.05	8.53	7.17	0.47	0.05	8.53	7.17	0.47								
May-21	52.3	26.1	4.4	0.05	8.42	7.07	0.46	0.05	8.42	7.07	0.46								
Jun-21	52.6	26.3	4.5	0.05	8.43	7.08	0.46	0.05	8.43	7.08	0.46								
Jul-21	51.8	25.9	4.4	0.05	8.29	6.96	0.46	0.05	8.29	6.96	0.46								
Aug-21	50.8	25.4	4.3	0.05	8.13	6.83	0.45	0.05	8.13	6.83	0.45								
Sep-21	51.8	25.9	4.4	0.04	7.20	6.04	0.40	0.04	7.20	6.04	0.40								
Oct-21	52.1	26.0	4.4	0.04	7.17	6.02	0.39	0.04	7.17	6.02	0.39								
Nov-21	52.2	26.1	4.4	0.04	7.11	5.97	0.39	0.04	7.11	5.97	0.39								
Dec-21	52.2	26.1	4.4	0.04	7.04	5.91	0.39	0.04	7.04	5.91	0.39								
	53.49	26.74	4.55	0.07	11.81	9.92	0.65	0.10	15.93	13.38	0.88	0.02	4.11	3.45	0.23				

PM  
(tpy)  
15.38

**Rowell, Daniel**

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**From:** Rowell, Daniel  
**Sent:** Wednesday, December 7, 2022 8:53 AM  
**To:** James Burris  
**Subject:** RE: Bunge - Cleaning/Drying Project - Past Actual to Future Potential Emission Calculations

Thanks for providing this information, Jim. I will review and follow up if I have questions.

-Daniel

**From:** James Burris <James.Burris@bunge.com>  
**Sent:** Tuesday, December 6, 2022 8:19 AM  
**To:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Subject:** [External] Bunge - Cleaning/Drying Project - Past Actual to Future Potential Emission Calculations

Daniel,

Attached are two files; 1) a word document with a summary of the past actual to future potential emission calculations and 2) a spreadsheet with the calculations used.

We are processing the expedited contract and additional \$10,000 fee and will be sending that back this week.

Please let me know if you need anything further.

Thank you,

**Jim Burris, PE**

Phone: 314-292-2937

Mobile: 314-308-3904

1391 Timberlake Manor Parkway  
Chesterfield, MO 63017

**BUNGE**

This message is intended only for the named recipient and may contain confidential, proprietary or legally privileged information.

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**Rowell, Daniel**

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**From:** Adelman, Amy M.  
**Sent:** Thursday, December 8, 2022 1:31 PM  
**To:** James Burris; Marr, Bill; Schnepf, Jason; Rowell, Daniel  
**Cc:** Walton, Marlisha M.; Nation, Trent; Rothenberg, Marcus A.  
**Subject:** RE: Expedited Agreement Bunge North America, Inc 003005AAI 22110001  
**Attachments:** Bunge North America Inc 003005AAI 22110001.pdf

Good afternoon,

The signed agreement and check was received. Attached is your executed agreement.

Thank you,

*Amy Adelman*, Office Coordinator

IL Environmental Protection Agency, Bureau of Air  
 1021 N Grand Ave E  
 Springfield, IL 62794  
 Email: [Amy.M.Adelman@illinois.gov](mailto:Amy.M.Adelman@illinois.gov)  
 Main: (217) 785- 1705 | Direct: (217) 558- 7374



**From:** James Burris <James.Burris@bunge.com>  
**Sent:** Sunday, December 4, 2022 3:47 PM  
**To:** Adelman, Amy M. <Amy.M.Adelman@Illinois.gov>; Marr, Bill <Bill.Marr@illinois.gov>; Schnepf, Jason <Jason.Schnepf@Illinois.gov>; Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Cc:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>; Nation, Trent <Trent.Nation@Illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@Illinois.gov>  
**Subject:** [External] RE: Expedited Agreement Bunge North America, Inc 003005AAI 22110001

Thank you Amy,

I will forward the contract to the plant manager for his signature and instruct him to return the signed contract with a check for \$10,000 no later than December 9.

**Jim Burris, PE**

Phone: 314-292-2937

Mobile: 314-308-3904

1391 Timberlake Manor Parkway  
 Chesterfield, MO 63017



**From:** Adelman, Amy M. <[Amy.M.Adelman@Illinois.gov](mailto:Amy.M.Adelman@Illinois.gov)>  
**Sent:** Friday, December 2, 2022 2:12 PM  
**To:** James Burris <[James.Burris@bunge.com](mailto:James.Burris@bunge.com)>; Marr, Bill <[Bill.Marr@illinois.gov](mailto:Bill.Marr@illinois.gov)>; Schnepf, Jason <[Jason.Schnepf@Illinois.gov](mailto:Jason.Schnepf@Illinois.gov)>; Rowell, Daniel <[Daniel.Rowell@illinois.gov](mailto:Daniel.Rowell@illinois.gov)>  
**Cc:** Walton, Marlisha M. <[Marlisha.Walton@illinois.gov](mailto:Marlisha.Walton@illinois.gov)>; Nation, Trent <[Trent.Nation@Illinois.gov](mailto:Trent.Nation@Illinois.gov)>; Rothenberg, Marcus A. <[Marcus.A.Rothenberg@Illinois.gov](mailto:Marcus.A.Rothenberg@Illinois.gov)>  
**Subject:** RE: Expedited Agreement Bunge North America, Inc 003005AAI 22110001  
**Importance:** High

**CAUTION:** This email originated from outside of Bunge. Do not click links or open attachments unless you recognize the sender !

Good afternoon,

Apologies— Correction, on the same day the check for the expedited fee of \$40,000 was received for 003005AAI another check for \$500 was received for a different site.

We must receive the standard fee (\$10,000) and the signed agreement no later than 12/09/22 in order to meet the deadline.

Thank you,

*Amy Adelman*, Office Coordinator

IL Environmental Protection Agency, Bureau of Air  
 1021 N Grand Ave E  
 Springfield, IL 62794  
 Email: [Amy.M.Adelman@illinois.gov](mailto:Amy.M.Adelman@illinois.gov)  
 Main: (217) 785- 1705 | Direct: (217) 558- 7374



**From:** Adelman, Amy M.  
**Sent:** Friday, December 2, 2022 1:08 PM  
**To:** James.Burris@bunge.com; Marr, Bill <[Bill.Marr@illinois.gov](mailto:Bill.Marr@illinois.gov)>; Schnepf, Jason <[Jason.Schnepf@Illinois.gov](mailto:Jason.Schnepf@Illinois.gov)>; Rowell, Daniel <[Daniel.Rowell@illinois.gov](mailto:Daniel.Rowell@illinois.gov)>  
**Cc:** Walton, Marlisha M. <[Marlisha.Walton@illinois.gov](mailto:Marlisha.Walton@illinois.gov)>; Nation, Trent <[Trent.Nation@illinois.gov](mailto:Trent.Nation@illinois.gov)>; Rothenberg, Marcus A. <[Marcus.A.Rothenberg@illinois.gov](mailto:Marcus.A.Rothenberg@illinois.gov)>  
**Subject:** Expedited Agreement Bunge North America, Inc 003005AAI 22110001



Good afternoon,

Attached is the expedited permit agreement between Bunge North America Inc and the Agency with an agreed issuance date of 12/22/22. Please have the appropriate person sign the last page and return the signed agreement to the agency address shown in Section 13. We received your expedited fee (\$40,000) on 11/03/2022 and a check for (\$500) on 11/03/22. We must receive the standard fee (\$9,500) and the signed agreement no later than 12/09/22 in order to meet the deadline. Prior to returning the documents back to the Agency, scan and email a copy of the signed agreement and check to me for our records. Also, please send a reply to ensure receipt of this email.

Thank you,

*Amy Adelman*, Office Coordinator

IL Environmental Protection Agency, Bureau of Air  
1021 N Grand Ave E  
Springfield, IL 62794  
Email: [Amy.M.Adelman@illinois.gov](mailto:Amy.M.Adelman@illinois.gov)  
Main: (217) 785- 1705 | Direct: (217) 558- 7374



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Illinois Environmental Protection Agency

**Routing and Approval Slip**

To: John J. Kim

	Concurrences:	Initials	Date
1.	Jason Schnepf	JMS	12/2/22
2.	Bill Marr	WDM	12/2/22
3.	Julie Armitage	<i>JAD</i>	<i>12/8/22</i>
4.	John Kim	<i>JK</i>	<i>12/8/22</i>
5.			
6.			
7.			
8.			

Comments:

**Contract for expedited permit application review  
Bunge North America Inc (Cairo, Alexander County)  
Fee: \$40,000**

**PLEASE EXPEDITE**

003005AAI  
22110001

*already approved by JK -  
agreement just catching up*

## Construction Permit Fee

Company:	Bunge North America, Inc
I.D. #:	003005AAI
Application #:	22110001
Date Received:	12-07-2022 (Date on check 12-06-2022)
Expedited Fee Amount:	\$0
Standard Fee Amount:	\$10,000
Check #:	#1200001459



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

## MEMORANDUM

DATE: 12-09-2022  
 TO: Julie Armitage  
 FROM: Bill Marr  
 SUBJECT: Expedited Permit Application Review – Bunge North America Inc

Enclosed is a contract for an expedited permit application review. Bunge North America Inc submitted a signed standard contract that proposes a 13-calendar day review period. Details on the application follow:

Applicant: Bunge North America Inc

Location: 203 34th St, Cairo, Alexander County

I.D. Number: 003005AAI

Application Number: 22110001

Staff Lead: Daniel Rowell

Unit Manager: Jason Schnepf

Estimated OT Required: 20 hours

Description of Request: Construction of new grain cleaning and drying units. This equipment will take the place of existing grain cleaning and drying equipment. Emissions of particulate from the new grain cleaning units will be controlled by a new baghouse. There will be no increase in permitted particulate emissions for this project.

Application Received Date: 11-03-2022

EJ Notification Date: 12-02-2022

Fugitive Dust Plan: N/A

Modeling Completion Date: N/A

Public Notice Date: N/A

Issuance Date: 12-22-2022

Current Due Date: 02-01-2023

Fees: Standard Fee: \$10,000  
 Expedited Fee: \$40,000

Contract Language:  Standard language has been accepted by the applicant; or  
 The applicant has proposed changes to the standard language and they have been deemed acceptable by DLC. A copy of the DLC concurrence is attached.

If you have any questions on this permit, contact me at 7-0312.

## AGREEMENT FOR EXPEDITED REVIEW OF PERMIT APPLICATION

The Illinois Environmental Protection Agency (“Agency”) and Bunge North America Inc having its principal place of business at 203 34th St, Cairo, Illinois (“Applicant”), enter into and execute this Agreement for Expedited Review of Permit Application (“Agreement”) and hereby agree as follows:

### SECTION 1 AUTHORITY:

This Agreement is entered into pursuant to Section 39.14 of the Environmental Protection Act (“Act”), 415 ILCS 5/39.14, and is subject to the laws of the State of Illinois.

### SECTION 2 ENTIRE AGREEMENT:

This document contains the entire agreement between the parties, and no statements, promises, or inducements made by either party or agent of either party, orally or in writing, that are not contained in this written Agreement are valid or binding. This Agreement may not be enlarged, modified, or altered except in writing signed by the parties.

### SECTION 3 PERMIT APPLICATION:

<u>Source Location:</u>	203 34th St, Cairo, Illinois
<u>Source I.D. No.:</u>	003005AAI
<u>Application Type:</u>	Construction
<u>Application No.:</u>	22110001
<u>Date Received:</u>	11-03-2022
<u>Description:</u>	New Grain Cleaning and Drying Units

### SECTION 4 EXPEDITED REVIEW:

- A. The Agency agrees to perform the usual and customary review of Applicant’s permit application described in Section 3 (“Application”) as necessary for processing any similar application.
- B. The Agency agrees to take an action on the Application by approving or denying the application (hereinafter “action” or “an action”) within 13 calendar days from the date this agreement is fully executed, the date the Agency has received the permit application or the date the Agency receives the payment specified in Section 6, whichever is latest, subject to tolling as provided in Section 5.
- C. Applicant hereby agrees to toll any time period for Agency action on the Application that is set forth in the Act or Board rules. Tolling shall begin on the date this Agreement is fully executed, the date the Agency has received the permit application or the date the Agency receives the payment specified in Section 6,

whichever is latest. Any time period tolled under this subsection (C) shall resume upon termination of this Agreement. While this Agreement may establish a different review time for the Application than otherwise set forth in the Act or Board rules, this Agreement is not intended to create any right to automatic approval of the Application upon the Agency's failure to meet the expedited review time frame.

- D. The Agency's review of the Application within the time frame set forth in paragraph B shall be known as "Expedited Review." This Agreement addresses only Expedited Review of the Application and does not create any other right or obligation for either party.
- E. The Expedited Review shall be of the Application as described in Section 3. In the Agency's discretion, changes to the Application may necessitate changes to this Agreement.
- F. The Agency's action on the Application does not affect the Applicant's obligations and responsibilities under this Agreement, including but not limited to, the payment of the fee specified in Section 6.

**SECTION 5 TOLLING OF EXPEDITED REVIEW:**

- A. The period of time set forth in Section 4 will be tolled during any period of time the Agency is waiting for the Applicant or any other party to provide information necessary for the Agency to complete its Expedited Review. The date the Agency requests necessary information from the Applicant or from any other party shall be the date tolling of the time period set forth in Section 4 begins. The time period set forth in Section 4 shall resume when the Agency receives the necessary information. The Agency's record of the date of receipt shall be deemed conclusive unless a contrary date is proved by a dated, signed receipt from the Agency or certified or registered mail.
- B. If the Agency sends the Applicant a notice of intention to terminate pursuant to Section 7, the time period set forth in Section 4 will be tolled until the Applicant corrects the deficiencies identified in the notice, unless the Agency elects to terminate this Agreement.
- C. If notice and opportunity to comment is provided to the public, the time period in Section 4 will be tolled, beginning when public notice is published and resuming 21 calendar days after the comment period closes.
- D. If a public hearing is held in the course of the Agency's review of the Application, the time period set forth in Section 4 will be tolled, beginning when notice for the public hearing is published and resuming 21 calendar days after the record in the hearing is closed.

- E. The Agency will document when a tolling period begins, the reason(s) the time period in Section 4 is being tolled and when the tolling period ends. The Agency will provide the Applicant a copy of this documentation upon request.

**SECTION 6 FEES:**

The Applicant agrees to pay the Agency an expedited permit fee in the amount of \$40,000. Payment must be made by check or money order, in the amount of \$40,000 made payable to the "Illinois EPA." The expedited permit fee is in addition to any other costs or fees required by the Act or Board rules, including, but not limited to, standard permit fees, initial permit fees, recurring permit fees, and annual permit fees.

The Agency may, at its discretion, accept a method of payment different than stated above.

**SECTION 7 TERMINATION:**

- A. The Applicant may terminate this Agreement at any time. To terminate this Agreement, the Applicant must submit written notification of termination to the Agency. The termination shall take effect on the date the Agency receives the notification. When the Applicant terminates this Agreement, the Applicant waives any and all right to seek reimbursement or refund of the expedited permit fee paid pursuant to Section 6.
- B. The Agency may terminate this Agreement for the following reasons.
1. After requested by the Agency, the Applicant fails to provide information the Agency deems necessary to complete the Expedited Review.
  2. A third party fails to provide information to the Agency that the Agency deems necessary to the completion of the Expedited Review.
  3. The Applicant fails to correct deficiencies in the Application as identified by the Agency.
  4. The Applicant's modification of the Application causes the Agency to be unable to take an action within the time period set forth in Section 4.
  5. The Applicant fails to pay the fee provided in Section 6, or the payment of the fee is drawn from an account with insufficient funds to cover the fee amount specified in Section 6.
  6. The Applicant fails to pay other fees or costs as required by the Act or Board rules.
  7. The Agency no longer has the resources available to take action on the Application within the time period set forth in Section 4.



Prior to terminating this Agreement, the Agency shall notify the applicant in writing of its intention to terminate and the reasons for the termination. When possible, the Agency shall provide the applicant with a reasonable opportunity to correct the reasons for the termination. If deficiencies remain uncorrected after the time period specified by the Agency, the Agency may proceed with termination of this Agreement. The Agency must provide the Applicant with written notification of termination that includes the reasons for the termination. The notice shall be provided by certified or registered mail postmarked with a date stamp and with return receipt requested. Termination of the Agreement shall take effect on the date the notification of termination is postmarked.

- C. This Agreement will automatically be terminated upon withdrawal of the Application by the Agency in response to a written request to withdraw the Application received from the Applicant. The termination of the Agreement shall take effect on the date the Agency issues an Application withdrawal letter.

#### **SECTION 8 AMENDMENTS:**

This Agreement may be modified by written agreement between the Agency and the Applicant. No modification, amendment, supplement to or waiver of this Agreement or any of its provisions shall be binding upon the Agency or Applicant unless made in writing and duly signed by both parties. A failure of or delay by either party to this Agreement to enforce at any time any of the provisions of this Agreement or to require at any time performance of any of the provisions of this Agreement shall in no way be construed to be a waiver of such provision.

#### **SECTION 9 REFUNDS:**

The Applicant waives all rights to a refund from the Agency of any fee paid under Section 6 except as provided in this Section. Any refund to the Applicant shall not exceed the fee amount in Section 6 and shall not accrue interest.

- A. Termination by Agency. If the Agency terminates this Agreement pursuant to subsection 7(B)(7), the Agency will refund the entire fee paid under Section 6 to the Applicant. The Applicant is not entitled to a refund of the fee paid under Section 6 if the Agency terminates this Agreement for the reasons set forth in subsections 7(B)(1)-(6).
- B. Late Action. If the Agency takes an action on the Application, but fails to take this action within the time period set forth in Section 4, taking into account the tolling in Section 5, the Applicant shall be entitled to a refund of the expedited permit fee paid under Section 6 on a prorated basis. The refund shall be calculated as follows.

$$\text{Refund} = \frac{\text{Expedited Permit Fee}}{13} \times \frac{\text{Number of Days Past}}{\text{Expedited Review Deadline}}$$

The parties agree that the Applicant will not receive a refund if the Agency's failure to take action on the permit application within the time period specified in Section 4 was due to a force majeure.

**SECTION 10 DISPUTES:**

Disputes relating to performance of this Agreement that are not resolved by the parties shall be decided by the Director of the Agency, or his or her authorized representative, who shall render a decision in writing. This decision shall be furnished to the Applicant by mail, electronic mail, facsimile, personal service, or by similar means. The decision of the Director shall be final and conclusive.

**SECTION 11 INDEMNIFICATION AND LIABILITY:**

The Applicant agrees to defend, indemnify and hold harmless the State, its agencies, officers, employees, agents and volunteers from any and all costs, demands, expenses, losses, claims, damages, liabilities, settlements and judgments, including reasonable in-house and contracted attorney's fees and expenses, caused by, arising out of or occurring in connection with any breach or violation of this Agreement, or any Agency action taken on the permit application specified in Section 3.

**SECTION 12 SEVERABILITY:**

If any provision of this Agreement is held to be illegal, invalid, or unenforceable, that provision will be fully severable, and this Agreement will be construed and enforced as if the illegal, invalid or unenforceable provision had never been part of this Agreement, and the remaining provisions of this Agreement will remain in full force and effect.

**SECTION 13 NOTICE:**

Notices and other communications provided for herein, unless otherwise specified, shall be given in writing by registered or certified mail, return receipt requested, by receipted hand delivery, by courier (UPS, FedEx or other similar and reliable carrier), by e-mail or by fax showing the date and time of successful receipt. By giving notice, either Party may change the contact information. Notice shall be sent to following persons:

**Agency Contact**

William D. Marr  
Manager, Permit Section  
Illinois EPA, Bureau of Air  
1021 N. Grand Avenue East  
Springfield, IL 62702  
Phone: 217-785-1705  
Email: Bill.Marr@illinois.gov

**Applicant Contact**

James Burris  
Environmental Specialist  
Bunge North America Inc  
203 34th St  
Cairo, IL 62914  
Phone: 314-292-2937  
Email: James.Burris@Bunge.com

**SECTION 14 IMPLEMENTATION:**

The Applicant agrees to execute such further documents and take such further steps as the Agency reasonably determines may be necessary to effectuate its review of the Applicant's permit application.

**SECTION 15 AUTHORIZATION:**

Each party to this Agreement represents and warrants to the other that (a) it has the right, power, and authority to enter into and perform its obligations under this Agreement, and (b) it has taken all requisite action (corporate, statutory or otherwise) to approve execution, delivery and performance of this Agreement, and (c) this Agreement constitutes a legal, valid and binding obligation upon itself in accordance with the terms of the Agreement.

IN WITNESS WHEREOF, the undersigned have caused this Agreement to be executed on behalf of the parties. This Agreement shall be considered fully executed on the latest date of the Agency's or the Applicant's signature below.

**Illinois Environmental Protection Agency**

Signature



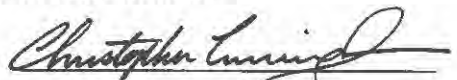
John J. Kim, Director

Date

12-09-2022

**Bunge North America Inc**

Signature



Printed Name

Christopher Cunningham

Title

Plant Manager

Date

12/16/22

**Rowell, Daniel**

---

**From:** Rowell, Daniel  
**Sent:** Tuesday, December 13, 2022 11:18 AM  
**To:** James Burris  
**Cc:** Schnepf, Jason  
**Subject:** Draft Construction Permit for Grain Cleaning and Drying Units - Cairo  
**Attachments:** Bunge.NA.-.Grain.Cleaning.Drying-DRAFT.121322.doc

Good morning Jim,

Please find attached to this e-mail a draft construction permit for the proposed grain cleaning and drying units at Bunge's Cairo facility. Note that this draft would require Bunge to install a bag leak detection system (BLDS) on the baghouse controlling the grain cleaning units. This is due to Bunge relying on this baghouse to substantially reduce emissions of particulates (PM, PM10 and PM2.5) so that this project does not result in a significant increase in emissions of particulates for purposes of Illinois' rules for Prevention of Significant Deterioration (PSD), 35 IAC Part 204. In addition, as Bunge's Cairo facility is located in an Environmental Justice (EJ) area, BLDS monitoring provides assurance that the baghouse is operating to effectively control particulates so as to not increase emissions of the facility, consistent with the Permit Section's objectives for sources located in EJ areas.

If BLDS cannot be used on the baghouse controlling the grain cleaning units, Bunge will need to provide adequate justification as to why BLDS cannot reasonably be applied.

Your review, comments and feedback on the draft permit are appreciated. If you have any questions during your review, please feel free to reach out to me.

Thanks-

Daniel Rowell, P.E.

**ILLINOIS EPA**

Technical Expert, Construction Unit  
Bureau of Air  
1021 North Grand Avenue East  
Springfield, Illinois 62794

Ph: 217-558-4368

217/785-1705

CONSTRUCTION PERMIT  
NSPS SOURCEPERMITTEE

Bunge North America, Inc.  
Attn: Christopher Cunningham, Plant Manager  
203 34<sup>th</sup> Street  
Cairo, Illinois 62914

Application No.: 22110001I.D. No.: 003005AAIApplicant's Designation:Date Received: November 3, 2022Subject: Grain Cleaning and Drying UnitsDate Issued: DRAFT --- December 13, 2022Location: 203 34<sup>th</sup> Street, Cairo, Alexander County

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of grain cleaning and drying units, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s).

1. Introduction

- a. This permit addresses the following at this grain processing plant, which processes soybeans into vegetable oil and animal feeds:
  - i. Construction of one new grain cleaning operation, consisting of units that would be used to clean, i.e., separate foreign matter, such as sticks and stones from, grain. A new baghouse would be constructed to control emissions of particulates from this operation. The new grain cleaning units and baghouse would take the place of the existing grain cleaning units and baghouse, which have reached the end of their useful life and will be removed from the source.
  - ii. Construction of six new gas-fired grain dryers. The new grain dryers would take the place of the existing two grain dryers, which have reached the end of their useful life and will be removed from the source.
- b. While the new units addressed by Conditions 1(a)(i) and (ii) will have the capacity to process more grain than the existing grain cleaning and drying units, the new units would continue to be bottlenecked by downstream process units at this plant. In this regard, this permit includes enforceable limits on the operation of these new units so that there would not be an increase in the amount of grain that could be processed by or emissions of downstream process units. (See Condition 4-1.)
- c. For purposes of this permit:

- i. The units comprising the grain cleaning operation addressed by Condition 1(a) (i) are referred to as the "affected grain cleaning units."
- ii. The new baghouse that would be used to control the affected grain cleaning units is referred to as the "affected baghouse."
- iii. The new grain dryers addressed by Condition 1(a) (ii) are referred to as the "affected grain dryers."
- iv. The affected grain cleaning units and affected grain dryers are collectively referred to as the "affected units."

## 2. Coordination With Other Permits

- a. Except as specifically provided, for the affected units, the Permittee shall comply with all applicable requirements for grain cleaning and drying units, including emissions standards and limits and related testing, recordkeeping and reporting requirements, as addressed by Section 4.2 of the Clean Air Act Permit Program (CAAPP) Permit issued for the source, Permit 96030140 (the "CAAPP Permit"), including the following:
  - i. Requirements of the New Source Performance Standards (NSPS) for Grain Elevators, 40 CFR 60 Subpart DD.
  - ii. Emissions standards for visible and particulate matter emissions under 35 IAC Part 212, including 35 IAC 212.123(a) (opacity of emissions), 35 IAC 212.301 (fugitive particulate matter), and 35 IAC 212 Subpart S (Agriculture).
  - iii. For the affected grain dryers, emissions standards for carbon monoxide (CO) emissions, including 35 IAC 216.121.

## 3. Nonapplicability Provisions

- a. This permit is issued based on this project not being a major modification for purposes of Illinois' rules for Prevention of Significant Deterioration, 35 IAC Part 204. This is because this project will not result in a significant increase in emissions. (See Attachment 1.)
- b. This permit is issued based on the affected units not being subject to the state emission standards for particulate matter emissions in 35 IAC 212.321(a). As generally provided by 35 IAC 212.461(a), 35 IAC 212.321 shall not apply to grain handling and drying operations.

## 4-1. Operational Limits

- a. The existing grain cleaning and drying units shall be permanently shut down before the affected units begin operation.
- b. The affected grain cleaning units shall not process more than 164.5 tons per hour (tons/hour) grain.

- c. The maximum rated air flow rate of the affected baghouse shall not exceed 26,000 standard cubic feet per minute (scfm).
- d. i. Natural gas shall be the only fuel fired in the affected grain dryers.
- ii. Fuel usage of the affected grain dryers shall not exceed 32 million standard cubic feet (mmscf) per month (mmscf/month) and 318.5 mmscf per year (mmscf/year).

#### 4-2. Emissions

- a. Emissions of particulates from the affected grain cleaning units shall not exceed the following:

Pollutant	Emissions	
	gr/dscf*	tons/year
PM	0.002	1.95
PM <sub>10</sub>		1.95
PM <sub>2.5</sub>	0.001	0.98

\* Grains (gr) per dry standard cubic foot (dscf)

- b. i. Emissions from the affected grain dryers, including emissions from combustion, shall not exceed the following limits:

Pollutant	Emissions	
	pounds/hour	tons/year
PM	26.7	63.4
PM <sub>10</sub>	13.4	31.7
PM <sub>2.5</sub>	2.3	5.39
NOx*	6.7	15.9
CO	5.6	13.8
VOM**	0.2	0.98

\* Nitrogen oxides

\*\* Volatile organic material

- ii. This permit is issued based on negligible emissions of sulfur dioxide (SO<sub>2</sub>) from the affected grain dryers, i.e., emissions of no more than 0.44 tons/year.

#### 5-1. Monitoring Requirements

- a. The Permittee shall install, operate, and maintain a bag leak detection system for the affected baghouse as specified in Conditions 5-1(b) and (c) and in accordance with the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.
- b. The bag leak detection system must meet the following specifications and requirements:

- i. The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 4.6 milligrams per actual cubic meter (0.002 grains per actual cubic foot) or less.
  - ii. The bag leak detection system sensor must provide output of relative PM loadings. The Permittee shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).
  - iii. The bag leak detection system must be equipped with an alarm system that will alert operating personnel when the system detects an increase in relative particulate loading over the alarm set point and the alarm must be located such that it can be detected by operating personnel.
  - iv. In the initial adjustment of the bag leak detection system, the Permittee must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.
  - v. After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the operations, maintenance, and monitoring plan required by Condition 5-2. The Permittee must not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition.
  - vi. The Permittee must install the bag leak detection sensor downstream of the affected baghouse. If multiple bag leak detectors are required, detectors may share the system instrumentation and alarm.
  - vii. Each triboelectric bag leak detection system must be installed, operated, adjusted, and maintained so that it follows USEPA's "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997).
- c. For the bag leak detection system, the Permittee must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. The Permittee must resolve the cause of the alarm within 3 hours of the alarm by taking necessary corrective action(s). Corrective actions may include, but are not limited to the following:
- i. Inspecting the affected baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
  - ii. Sealing off defective bags or filter media;



- iii. Replacing defective bags or filter media or otherwise repairing the control device;
- iv. Sealing off a defective baghouse compartment;
- v. Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
- vi. Shutting down the process producing the PM emissions.

5-2. Operations, Maintenance and Monitoring Plan

- a. The operations, maintenance, and monitoring plan must include the following:
  - i. Process and control device parameters that the Permittee will monitor to determine compliance, along with established operating levels or ranges for the affected grain cleaning units operation and associated affected baghouse.
  - ii. A monitoring schedule.
  - iii. Procedures for properly operating and maintaining the affected baghouse used to meet the emission limit (0.02 gr/dscf) in Condition 4(a) of this permit.
  - iv. Procedures for keeping records to document compliance.
  - v. Corrective actions you will take if process or control device parameters vary from the levels established during performance testing. For bag leak detection system alarms, example corrective actions that may be included in the operations, maintenance, and monitoring plan include:
    - A. Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.
    - B. Sealing off defective bags or filter media.
    - C. Replacing defective bags or filter media, or otherwise repairing the control device.
    - D. Sealing off a defective fabric filter compartment.
    - E. Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.
    - F. Shutting down the affected grain cleaning units.
    - G. The Permittee shall notify the Illinois EPA's Compliance Section of any adjustment to the range, averaging period, alarm set points or alarm delay time. This notification shall be submitted to the Illinois EPA's Compliance Section within 30 days of any adjustment.

6. Testing Requirements

- a. For the affected units, unless USEPA waives such testing as provided for by 40 CFR 60.8(b), the Permittee shall have performance tests conducted to demonstrate compliance with the applicable requirements of the NSPS, including 40 CFR 60.302, and submit a written report for those tests to the Illinois EPA. The timing of these tests shall be in accordance with 40 CFR 60.8(a).
  - i. These performance tests shall be conducted using the methods specified in 40 CFR 60.303(b) or (c).
  - ii. The Permittee shall notify the Illinois EPA prior to these tests in accordance with 40 CFR 60.8(d).
- b. In addition to the testing required by Condition 6(a), within 180 days of initial startup of the affected units, the Permittee shall have emission testing conducted for PM<sub>10</sub> and PM<sub>2.5</sub> emissions of the affected units by an independent testing service in accordance with USEPA Methods 201A and 202. USEPA Method 202 may be used if all PM is assumed to be PM<sub>10</sub>/PM<sub>2.5</sub>. This testing may be coordinated with the performance testing required by Condition 6(a).
- c. Within 180 days of initial startup of the affected grain dryers, the Permittee shall have emission testing conducted for NO<sub>x</sub> and CO emissions of the affected grain dryers by an independent testing service in accordance with USEPA Methods 7 and 10, respectively. This testing may be coordinated with the performance testing required by Condition 6(a).
- d. At least 60 days prior to the actual date of emission testing, a written test plan shall be submitted to the Illinois EPA for review. The Illinois EPA may at the discretion of the Compliance Section Manager (or designee) accept a written test plan less than 60 days prior to testing provided it does not interfere with the Illinois EPA's ability to review and comment on the protocol and does not deviate from the applicable state or federal statutes. This plan shall describe the specific procedures for testing, including as a minimum:
  - i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
  - ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be considered representative operating conditions and the means by which the operating parameters for the emission unit and any control equipment will be determined.
  - iii. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.

- iv. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods.
  - v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.
  - vi. The format and content of the Source Test Report.
- e. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of the measurements shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of measurement shall be submitted a minimum of five working days prior to the actual date of the measurement. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe the measurements.
- f. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 60 days following the test. The Final Report shall include at a minimum:
- i. A summary of results.
  - ii. General information.
  - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
  - iv. Detailed description of test conditions, including:
    - A. Process information, i.e., mode(s) of operation and process rate; and
    - B. Control equipment information, i.e., equipment condition and operating parameters during testing.
  - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

7. Recordkeeping Requirements

- a. For the affected units, the Permittee shall fulfill the recordkeeping requirements of the NSPS, including 40 CFR 60.7(b).
- b. The Permittee shall maintain records of the following items for the affected grain cleaning units in addition to other required records:
  - i. A file containing a copy of the manufacturer's specifications and recommended operating and maintenance procedures for the affected baghouse.

- ii. The following records related to particulate emissions:
  - A. The PM, PM<sub>10</sub> and PM<sub>2.5</sub> emission factor(s) and maximum hourly emissions rates used by the Permittee to determine emissions of the affected grain cleaning units with supporting documentation.
  - B. Records of all other data used or relied upon by the Permittee to determine the PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions of affected grain cleaning units.
  - C. PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions from the affected grain cleaning units based on appropriate emission factors and operating data (tons/month and tons/year), with supporting calculations.
- c. The Permittee shall keep the following information and records for the affected grain dryers:
  - i. A file containing the manufacturer, model number, serial number and the maximum design heat input capacity, if this information is not listed on a nameplate attached to the grain dryer.
  - ii. A file containing the determination of the maximum hourly emissions of PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub> and CO, VOM and SO<sub>2</sub> with supporting data and calculations.
  - iii. Records for natural gas usage (mmscf/month and mmscf/year), with supporting documentation and calculations.
  - iv. Records of actual emissions of PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, CO and VOM (tons/month and tons/year), with supporting data and calculations.

#### 8. Notification and Reporting Requirements

- a. For the affected units, the Permittee shall fulfill all applicable notification and reporting requirements of the NSPS, including 40 CFR 60.7(a) and (b).
- b. The Permittee shall notify the Illinois EPA within 30 days of the following:
  - i. The date that the affected grain cleaning units begin operation.
  - ii. The date that the affected grain dryers begin operation.
  - iii. The date(s) that the existing grain cleaning and drying units are removed from the source.

#### 9. Authorization to Operate

- a. The Permittee may operate the affected units pursuant to this construction permit until the CAAPP Permit is revised or renewed

Page 9

to address these units. This condition supersedes Standard Condition 6.

If you have any questions on this permit, please contact Daniel Rowell at 217/558-4368.

William D. Marr  
Manager, Permit Section  
Bureau of Air

WDM:DBR:

## ATTACHMENT 1

## Emissions Increases for the Project (Tons/Year)

Unit(s)	Pollutant						
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>x</sub>	CO	VOM	SO <sub>2</sub>
Baseline Actual Emissions of Existing Units <sup>a</sup>							
Grain Cleaning	0.2	0.2	0.1	-	-	-	-
Grain Drying	53.5	26.7	4.6	11.8	9.9	0.6	0.07
Subtotal	53.7	26.9	4.7	11.8	9.9	0.6	0.07
Potential Emissions of New Units							
Grain Cleaning	1.95	1.95	0.98	-	-	-	-
Grain Drying	63.4	31.7	5.39	15.9	13.8	0.88	0.10
Subtotal	65.4	33.7	6.37	15.9	13.8	0.88	0.10
Overall Increase <sup>b</sup>	11.7	6.8	1.7	4.1	3.9	0.3	0.03
Significant Emission Rate	25	15	10	40	100	40	40
Significant?	No	No	No	No	No	No	No

## Table Notes:

- a. Represents the baseline actual emissions of the existing grain cleaning and drying units for the 24-month baseline period beginning February 2015 and ending January 2017. The existing grain cleaning and drying units will be shut down as part of this project.
- b. Totals may not match sums due to rounding.



STATE OF ILLINOIS  
 ENVIRONMENTAL PROTECTION AGENCY  
 DIVISION OF AIR POLLUTION CONTROL  
 P. O. BOX 19506  
 SPRINGFIELD, ILLINOIS 62794-9506

**STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS  
 ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.
2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act, and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The Permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:
  - a. to enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,
  - b. to have access to and copy any records required to be kept under the terms and conditions of this permit,
  - c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
  - d. to obtain and remove samples of any discharge or emission of pollutants, and
  - e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
  - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,
  - b. does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,
  - c. does not release the Permittee from compliance with the other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,
  - d. does not take into consideration or attest to the structural stability of any units or parts of the project, and

- e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
- 6.
- a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.
  - b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.
7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:
- a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or
  - b. upon finding that any standard or special conditions have been violated, or
  - c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.



**Rowell, Daniel**

---

**From:** James Burris <James.Burris@bunge.com>  
**Sent:** Friday, December 16, 2022 8:38 AM  
**To:** Rowell, Daniel  
**Cc:** Schnepf, Jason  
**Subject:** [External] RE: Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

Daniel,

Below are Bunge's comments on the Draft construction permit. Please let me know if you have any questions or if you would like to discuss any of the comments in more detail.

**Comments on Draft Construction Permit, Application No. 22110001****1) On pages 2, Condition 4-1.b**

This condition limits the grain cleaning unit to 164.5 tons/hour. The grain cleaning system has an hourly design capacity of 300 tons/hour and can in a single hour clean 300 tons of grain. The 164.5 tons/hour is a long term limit based on an annual maximum throughput of 1,441,020 tons/year of clean beans or 1,601,133 tons/year of dirty beans (assuming 10% foreign material in beans received.) bottlenecked rate.

Bunge proposes that this be changed to a 12-month rolling limit of 1,441,020 tons/year of clean beans processed measured on a monthly basis satisfying the need for a short term limit.

**2) On pages 2, Condition 4-1.c**

This condition states the maximum rated air flow rate of the cleaning equipment baghouse shall not exceed 26,000 scfm.

Bunge feels that this condition is not necessary. The baghouse is required to be tested to demonstrate compliance with the hourly emission rates. During the test, the air flow rate will be measured. While the fan is rated at 26,000 scfm, the air flow may fluctuate due to balancing of the air flow needed in the cleaning system. Air flow rates measured during the stack test might be shown to exceed 26,000 scfm while at the same time show hourly emission rates below the permitted limits. Bunge does not want to show compliance with emission limits only to be out of compliance with an air flow rate. Bunge proposes to remove this condition because the compliance stack test will be sufficient to demonstrate compliance with the hourly emission rate limits.

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This condition states fuel usage of the grain dryer shall not exceed 32 MMCF per month and 318.5 MMCF per year.

Bunge believes it is possible that the dryers could exceed this monthly limit. For example, a very cold January with really wet beans could require a large quantity of fuel. Bunge proposes to eliminate the monthly limit and instead record the quantity of fuel used on a monthly basis and demonstrate compliance with the annual limit monthly on a 12-month rolling basis. This satisfies the need for a short term limit.

**4) On page 3, Condition 5-1, Monitoring Requirements**

This condition requires the facility to install and use a bag leak detection system to assure that the grain cleaning system baghouse is in compliance with the permitted emission rate limits and is operating as intended.

Bunge proposes an alternative method of compliance assurance. Bunge proposes to perform daily visible emission observations and if any visible emissions are observed, the cleaning system equipment and baghouse would be shut down within one hour to investigate correct the issue. After any corrective actions are taken, a follow up visible emissions observation will be taken to confirm that the repairs were effective. The daily visible emissions observations would be recorded along with any corrective actions and

follow up visible emissions results. Visible emissions observations are a reliable method for monitoring a baghouse for proper operation and are employed for other baghouses at this facility.

**5) On page 5, Condition 5-2.a.iii**

This condition references a grain cleaning system baghouse limit of 0.02 gr/dscf. Bunge believes this limit should be 0.002 gr/dscf.

**6) On page 5, Condition 5-2.a.v**

This condition includes a reference to a bag leak detection system. Bunge has proposed a monitoring method that does not include a bag leak detection system. This reference can be removed. See comment 2.

**7) On page 5, Condition 5-2.a.v.B, D and E**

Condition B indicates that the operations, maintenance and monitoring plan should include "Sealing off defective bags or filter media". The baghouse being installed are not designed to be able to seal off defective bags. Defective bags will be replaced. This condition can be removed.

Condition D indicates that the operations, maintenance and monitoring plan should include "Sealing off defective fabric filter compartments". The baghouse being installed are not designed to be able to seal off filter compartments. Defective filter compartments will be repaired. This condition can be removed.

Condition E indicates that the operations, maintenance and monitoring plan should include "Cleaning the bag leak detection probe, or otherwise repairing the bag leak detection system". Bunge has proposed a monitoring method that does not include a bag leak detection system. This condition can be removed.

**8) On page 5, Condition 5-2.a.v.G**

This condition requires the facility to submit notifications to IEPA when the range, averaging period, alarm set points or alarm delay time are adjusted.

Bunge does not understand the purpose of this condition or when it would apply. Bunge feels that this condition should be removed.

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This condition is in reference to compliance testing required by NSPS, subpart DD. This project does not involve any affected facilities covered under subpart DD subject to compliance testing. This condition can be removed.

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This condition requires the facility to perform a PM10 and PM2.5 compliance test using Methods 201A and 202, noting that Method 202 may be used if all PM is assumed to be PM10/PM2.5. Bunge believes the alternate method should be Method 5.

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Condition b requires the facility to perform a PM10 and PM2.5 compliance test on the "affected units" which includes the grain dryers, and condition c requires the facility to perform a CO and NOx compliance testing on the grain dryers. The exhaust from the grain dryers does not pass through a stack, it passes through the screened walls of the dryers. Performing these tests is not possible. In lieu of performing the compliance tests, Bunge proposes to follow the NSPS, subpart DD requirement to install a dryer with screen perforations not exceeding 0.094 inches (2.4 mm) and include in their operation, maintenance and monitoring plan a requirement to perform an annual inspection of the dryer's burners and repair/replace as necessary to ensure efficient combustion and that the dryers are operating as designed.

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This condition requires a written test plan be submitted to IEPA and specifies what the test plan should include. Illinois regulation 35 IAC 283.220(c) specifies what is required to be in a test plan. It states that a test plan must specify:

- The purpose of the test,
- The operating parameters,
- The test method, and

- Any other procedures that will be followed when conducting an emissions test pursuant to the provisions of this Part.

Furthermore, 35 IAC 283.220(d) states that a test plan need not be submitted where the source intends to use a standard test method or procedure.

Bunge requests that this condition be amended so that the required content of a test plan is consistent with what is required by the regulation and add language to incorporate the part of the regulation that allows for circumstances when a test plan is not required.

**13) On page 8, Condition 7.b.i**

This condition requires a file containing a copy of the manufacturer's specifications and recommended operating and maintenance procedures for the grain cleaning system baghouse.

Bunge feels that this requirement is not necessary. Bunge incorporates manufacturer recommendations into its reliability and maintenance program. The maintenance and operation of the baghouse will be incorporated into the operation, maintenance and monitoring plan required by condition 5-2.

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These conditions require the maintenance of records of emissions on a ton/month basis. There are no monthly emission limits to comply with. Bunge maintains emission records on a monthly basis, but the emissions calculated and recorded are a ton/12-month rolling basis. Bunge requests that the requirement to maintain a record of monthly emissions be replaced with a requirement to keep a record of the 12-month rolling emissions on a monthly basis.

Thank you,

**Jim Burris, PE**

Phone: 314-292-2937

Mobile: 314-308-3904

1391 Timberlake Manor Parkway  
Chesterfield, MO 63017

**BUNGE**

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Tuesday, December 13, 2022 11:18 AM  
**To:** James Burris <James.Burris@bunge.com>  
**Cc:** Schnepf, Jason <Jason.Schnepf@illinois.gov>  
**Subject:** Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

**CAUTION: This email originated from outside of Bunge. Do not click links or open attachments unless you recognize the sender !**

Good morning Jim,

Please find attached to this e-mail a draft construction permit for the proposed grain cleaning and drying units at Bunge's Cairo facility. Note that this draft would require Bunge to install a bag leak detection system (BLDS) on the baghouse controlling the grain cleaning units. This is due to Bunge relying on this baghouse to substantially reduce emissions of particulates (PM, PM10 and PM2.5) so that this project does not result in a significant increase in emissions of particulates for purposes of Illinois' rules for Prevention of Significant Deterioration (PSD), 35 IAC Part 204. In

addition, as Bunge's Cairo facility is located in an Environmental Justice (EJ) area, BLDS monitoring provides assurance that the baghouse is operating to effectively control particulates so as to not increase emissions of the facility, consistent with the Permit Section's objectives for sources located in EJ areas.

If BLDS cannot be used on the baghouse controlling the grain cleaning units, Bunge will need to provide adequate justification as to why BLDS cannot reasonably be applied.

Your review, comments and feedback on the draft permit are appreciated. If you have any questions during your review, please feel free to reach out to me.

Thanks-

Daniel Rowell, P.E.

## **ILLINOIS EPA**

Technical Expert, Construction Unit  
Bureau of Air  
1021 North Grand Avenue East  
Springfield, Illinois 62794

Ph: 217-558-4368

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**Rowell, Daniel**

---

**From:** Rowell, Daniel  
**Sent:** Friday, December 16, 2022 2:02 PM  
**To:** James Burris  
**Cc:** Schnepf, Jason  
**Subject:** RE: Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

Good afternoon Jim-

The Permit Section has concerns with Bunge's request to remove the requirement to install and maintain a bag leak detection system (BLDS) for baghouse controlling the grain cleaning units (see Bunge's Comment #4, below). The comments provided do not include a technical justification as to why BLDS cannot reasonably be applied to this baghouse. Rather, Bunge proposed an alternative monitoring program for the baghouse. In order for the Permit Section to consider the alternative baghouse monitoring proposed by Bunge, Bunge must provide a written technical justification as to why BLDS cannot reasonably be applied. If Bunge has conducted studies or evaluations at its other grain processing plants to determine whether BLDS can be used on baghouses controlling similar grain handling operations, it can rely on such studies or evaluations and should provide copies of any technical reports from those studies or evaluations with its written justification why BLDS cannot be applied to the baghouse at the Cairo facility.

As a reminder, Bunge's Cairo facility is located in an Environmental Justice (EJ) area. BLDS are important to ensuring proper operation of the baghouse. Inclusion of BLDS in permits, particularly for sources located in EJ areas, is consistent with the Permit Section's objectives with respect to EJ.

Please let me know if you have questions on this request or would like to discuss.

Thanks-

Daniel Rowell, P.E.

**ILLINOIS EPA**

Technical Expert, Construction Unit  
 Bureau of Air  
 1021 North Grand Avenue East  
 Springfield, Illinois 62794

Ph: 217-558-4368

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**Sent:** Friday, December 16, 2022 8:38 AM  
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Thank you,

**Jim Burris, PE**

Phone: 314-292-2937

Mobile: 314-308-3904

1391 Timberlake Manor Parkway  
Chesterfield, MO 63017

**BUNGE**

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Tuesday, December 13, 2022 11:18 AM  
**To:** James Burris <James.Burris@bunge.com>  
**Cc:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Subject:** Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

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Your review, comments and feedback on the draft permit are appreciated. If you have any questions during your review, please feel free to reach out to me.

Thanks-

Daniel Rowell, P.E.

**ILLINOIS EPA**



Technical Expert, Construction Unit  
Bureau of Air  
1021 North Grand Avenue East  
Springfield, Illinois 62794

Ph: 217-558-4368

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**Rowell, Daniel**

---

**From:** Rowell, Daniel  
**Sent:** Tuesday, December 20, 2022 4:11 PM  
**To:** James Burris  
**Cc:** Schnepf, Jason  
**Subject:** RE: Draft Construction Permit for Grain Cleaning and Drying Units - Cairo  
**Attachments:** Bunge.NA.-.Grain.Cleaning.Drying-DRAFT.122022.doc

Good afternoon Jim-

Please find attached to this e-mail a redline draft of the construction permit for the proposed grain cleaning and drying units at Bunge's Cairo facility. Where appropriate, the comments feature in Word has been used to briefly explain the Permit Section's position on changes to the draft and/or responses to Bunge's comments. This draft continues to include requirements for a bag leak detection system (BLDS) for the baghouse that would control the grain cleaning units. As we discussed on our call this morning, BLDS is being required by the permit as Bunge has not provided justification why BLDS cannot be applied.

Your review, comments and feedback are appreciated. Please feel free to reach out if you have questions

Thanks-

Daniel Rowell, P.E.

Technical Expert, Construction Unit  
 Illinois EPA, Bureau of Air                      Ph: 217-558-4368  
 1021 North Grand Avenue East  
 Springfield, Illinois 62794

**From:** James Burris <James.Burris@bunge.com>  
**Sent:** Friday, December 16, 2022 8:38 AM  
**To:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Cc:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Subject:** [External] RE: Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

Daniel,

Below are Bunge's comments on the Draft construction permit. Please let me know if you have any questions or if you would like to discuss any of the comments in more detail.

**Comments on Draft Construction Permit, Application No. 22110001**

**1) On pages 2, Condition 4-1.b**

This condition limits the grain cleaning unit to 164.5 tons/hour. The grain cleaning system has an hourly design capacity of 300 tons/hour and can in a single hour clean 300 tons of grain. The 164.5 tons/hour is a long term limit based on an annual maximum throughput of 1,441,020 tons/year of clean beans or 1,601,133 tons/year of dirty beans (assuming 10% foreign material in beans received.) bottlenecked rate.

Bunge proposes that this be changed to a 12-month rolling limit of 1,441,020 tons/year of clean beans processed measured on a monthly basis satisfying the need for a short term limit.

**2) On pages 2, Condition 4-1.c**

This condition states the maximum rated air flow rate of the cleaning equipment baghouse shall not exceed 26,000 scfm.

Bunge feels that this condition is not necessary. The baghouse is required to be tested to demonstrate compliance with the hourly emission rates. During the test, the air flow rate will be measured. While the fan is rated at 26,000 scfm, the air flow may fluctuate due to balancing of the air flow needed in the cleaning system. Air flow rates measured during the stack test might be shown to exceed 26,000 scfm while at the same time show hourly emission rates below the permitted limits. Bunge does not want to show compliance with emission limits only to be out of compliance with an air flow rate. Bunge proposes to remove this condition because the compliance stack test will be sufficient to demonstrate compliance with the hourly emission rate limits.

**3) On pages 2, Condition 4-1.d.ii**

This condition states fuel usage of the grain dryer shall not exceed 32 MMCF per month and 318.5 MMCF per year.

Bunge believes it is possible that the dryers could exceed this monthly limit. For example, a very cold January with really wet beans could require a large quantity of fuel. Bunge proposes to eliminate the monthly limit and instead record the quantity of fuel used on a monthly basis and demonstrate compliance with the annual limit monthly on a 12-month rolling basis. This satisfies the need for a short term limit.

**4) On page 3, Condition 5-1, Monitoring Requirements**

This condition requires the facility to install and use a bag leak detection system to assure that the grain cleaning system baghouse is in compliance with the permitted emission rate limits and is operating as intended.

Bunge proposes an alternative method of compliance assurance. Bunge proposes to perform daily visible emission observations and if any visible emissions are observed, the cleaning system equipment and baghouse would be shut down within one hour to investigate correct the issue. After any corrective actions are taken, a follow up visible emissions observation will be taken to confirm that the repairs were effective. The daily visible emissions observations would be recorded along with any corrective actions and follow up visible emissions results. Visible emissions observations are a reliable method for monitoring a baghouse for proper operation and are employed for other baghouses at this facility.

**5) On page 5, Condition 5-2.a.iii**

This condition references a grain cleaning system baghouse limit of 0.02 gr/dscf. Bunge believes this limit should be 0.002 gr/dscf.

**6) On page 5, Condition 5-2.a.v**

This condition includes a reference to a bag leak detection system. Bunge has proposed a monitoring method that does not include a bag leak detection system. This reference can be removed. See comment 2.

**7) On page 5, Condition 5-2.a.v.B, D and E**

Condition B indicates that the operations, maintenance and monitoring plan should include "Sealing off defective bags or filter media". The baghouse being installed are not designed to be able to seal off defective bags. Defective bags will be replaced. This condition can be removed.

Condition D indicates that the operations, maintenance and monitoring plan should include "Sealing off defective fabric filter compartments". The baghouse being installed are not designed to be able to seal off filter compartments. Defective filter compartments will be repaired. This condition can be removed.

Condition E indicates that the operations, maintenance and monitoring plan should include "Cleaning the bag leak detection probe, or otherwise repairing the bag leak detection system". Bunge has proposed a monitoring method that does not include a bag leak detection system. This condition can be removed.

**8) On page 5, Condition 5-2.a.v.G**

This condition requires the facility to submit notifications to IEPA when the range, averaging period, alarm set points or alarm delay time are adjusted.

Bunge does not understand the purpose of this condition or when it would apply. Bunge feels that this condition should be removed.

**9) On page 6, Condition 6.a**

This condition is in reference to compliance testing required by NSPS, subpart DD. This project does not involve any affected facilities covered under subpart DD subject to compliance testing. This condition can be removed.

**10) On page 6, Condition 6.b**

This condition requires the facility to perform a PM10 and PM2.5 compliance test using Methods 201A and 202, noting that Method 202 may be used if all PM is assumed to be PM10/PM2.5. Bunge believes the alternate method should be Method 5.

**11) On page 6, Condition 6.b and c**

Condition b requires the facility to perform a PM10 and PM2.5 compliance test on the "affected units" which includes the grain dryers, and condition c requires the facility to perform a CO and NOx compliance testing on the grain dryers. The exhaust from the grain dryers does not pass through a stack, it passes through the screened walls of the dryers. Performing these tests is not possible. In lieu of performing the compliance tests, Bunge proposes to follow the NSPS, subpart DD requirement to install a dryer with screen perforations not exceeding 0.094 inches (2.4 mm) and include in their operation, maintenance and monitoring plan a requirement to perform an annual inspection of the dryer's burners and repair/replace as necessary to ensure efficient combustion and that the dryers are operating as designed.

**12) On page 6, Condition 6.d**

This condition requires a written test plan be submitted to IEPA and specifies what the test plan should include. Illinois regulation 35 IAC 283.220(c) specifies what is required to be in a test plan. It states that a test plan must specify:

- The purpose of the test,
- The operating parameters,
- The test method, and
- Any other procedures that will be followed when conducting an emissions test pursuant to the provisions of this Part.

Furthermore, 35 IAC 283.220(d) states that a test plan need not be submitted where the source intends to use a standard test method or procedure.

Bunge requests that this condition be amended so that the required content of a test plan is consistent with what is required by the regulation and add language to incorporate the part of the regulation that allows for circumstances when a test plan is not required.

**13) On page 8, Condition 7.b.i**

This condition requires a file containing a copy of the manufacturer's specifications and recommended operating and maintenance procedures for the grain cleaning system baghouse.

Bunge feels that this requirement is not necessary. Bunge incorporates manufacturer recommendations into its reliability and maintenance program. The maintenance and operation of the baghouse will be incorporated into the operation, maintenance and monitoring plan required by condition 5-2.

**14) On page 8, Condition 7.b.ii.C and 7.c.iv**

These conditions require the maintenance of records of emissions on a ton/month basis. There are no monthly emission limits to comply with. Bunge maintains emission records on a monthly basis, but the emissions calculated and recorded are a ton/12-month rolling basis. Bunge requests that the requirement to maintain a record of monthly emissions be replaced with a requirement to keep a record of the 12-month rolling emissions on a monthly basis.

Thank you,

Jim Burris, PE

Phone: 314-292-2937

Mobile: 314-308-3904

1391 Timberlake Manor Parkway  
Chesterfield, MO 63017



**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Tuesday, December 13, 2022 11:18 AM  
**To:** James Burris <James.Burris@bunge.com>  
**Cc:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Subject:** Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

**CAUTION:** This email originated from outside of Bunge. Do not click links or open attachments unless you recognize the sender !

Good morning Jim,

Please find attached to this e-mail a draft construction permit for the proposed grain cleaning and drying units at Bunge's Cairo facility. Note that this draft would require Bunge to install a bag leak detection system (BLDS) on the baghouse controlling the grain cleaning units. This is due to Bunge relying on this baghouse to substantially reduce emissions of particulates (PM, PM10 and PM2.5) so that this project does not result in a significant increase in emissions of particulates for purposes of Illinois' rules for Prevention of Significant Deterioration (PSD), 35 IAC Part 204. In addition, as Bunge's Cairo facility is located in an Environmental Justice (EJ) area, BLDS monitoring provides assurance that the baghouse is operating to effectively control particulates so as to not increase emissions of the facility, consistent with the Permit Section's objectives for sources located in EJ areas.

If BLDS cannot be used on the baghouse controlling the grain cleaning units, Bunge will need to provide adequate justification as to why BLDS cannot reasonably be applied.

Your review, comments and feedback on the draft permit are appreciated. If you have any questions during your review, please feel free to reach out to me.

Thanks-

Daniel Rowell, P.E.

## ILLINOIS EPA

Technical Expert, Construction Unit  
Bureau of Air  
1021 North Grand Avenue East  
Springfield, Illinois 62794

Ph: 217-558-4368

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217/785-1705

CONSTRUCTION PERMIT  
NSPS SOURCE

PERMITTEE

Bunge North America, Inc.  
Attn: Christopher Cunningham, Plant Manager  
203 34<sup>th</sup> Street  
Cairo, Illinois 62914

Application No.: 22110001I.D. No.: 003005AA1Applicant's Designation:Date Received: November 3, 2022Subject: Grain Cleaning and Drying UnitsDate Issued: DRAFT --- December 20, 2022Location: 203 34<sup>th</sup> Street, Cairo, Alexander County

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of grain cleaning and drying units, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s).

1. Introduction

- a. This permit addresses the following at this grain processing plant, which processes soybeans into vegetable oil and animal feeds:
  - i. Construction of one new grain cleaning operation, consisting of units that would be used to clean, i.e., separate foreign matter, such as sticks and stones from, grain. A new baghouse would be constructed to control emissions of particulates from this operation. The new grain cleaning units and baghouse would take the place of the existing grain cleaning units and baghouse, which have reached the end of their useful life and will be removed from the source.
  - ii. Construction of six new gas-fired grain dryers. The new grain dryers would take the place of the existing two grain dryers, which have reached the end of their useful life and will be removed from the source.
- b. While the new units addressed by Conditions 1(a)(i) and (ii) will have the capacity to process more grain than the existing grain cleaning and drying units, the new units would continue to be bottlenecked by downstream process units at this plant. In this regard, this permit includes enforceable limits on the operation of these new units so that there would not be an increase in the amount of grain that could be processed by or emissions of downstream process units. (See Condition 4-1.)
- c. For purposes of this permit:

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- i. The units comprising the grain cleaning operation addressed by Condition 1(a)(i) are referred to as the "affected grain cleaning units."
- ii. The new baghouse that would be used to control the affected grain cleaning units is referred to as the "affected baghouse."
- iii. The new grain dryers addressed by Condition 1(a)(ii) are referred to as the "affected grain dryers."
- iv. The affected grain cleaning units and affected grain dryers are collectively referred to as the "affected units."

## 2. Coordination With Other Permits

- a. Except as specifically provided, for the affected units, the Permittee shall comply with all applicable requirements for grain cleaning and drying units, including emissions standards and limits and related testing, recordkeeping and reporting requirements, as addressed by Section 4.2 of the Clean Air Act Permit Program (CAAPP) Permit issued for the source, Permit 96030140 (the "CAAPP Permit"), including the following:
  - i. Requirements of the New Source Performance Standards (NSPS) for Grain Elevators, 40 CFR 60 Subpart DD.
  - ii. Emissions standards for visible and particulate matter emissions under 35 IAC Part 212, including 35 IAC 212.123(a) (opacity of emissions), 35 IAC 212.301 (fugitive particulate matter), and 35 IAC 212 Subpart S (Agriculture).
  - iii. For the affected grain dryers, emissions standards for carbon monoxide (CO) emissions, including 35 IAC 216.121.

## 3. Nonapplicability Provisions

- a. This permit is issued based on this project not being a major modification for purposes of Illinois' rules for Prevention of Significant Deterioration, 35 IAC Part 204. This is because this project will not result in a significant increase in emissions. (See Attachment 1.)
- b. This permit is issued based on the affected grain dryers not being subject to the particulate matter standard of the NSPS, 40 CFR 60.301(a)(1), i.e., 0 percent opacity from any column dryer with column plate perforation exceeding 2.4 mm (0.094 inch). This is because the affected grain dryers will have column plate perforation that will not exceed 2.4 mm (0.094 inch). (See Condition 4-1(e)).
- bc. This permit is issued based on the affected units not being subject to the state emission standards for particulate matter emissions in 35 IAC 212.321(a). As generally provided by 35 IAC 212.461(a), 35 IAC 212.321 shall not apply to grain handling and drying operations.



4-1. Operational Limits and Requirements

- a. The existing grain cleaning and drying units shall be permanently shut down before the affected units begin operation.
- b. ~~The affected grain cleaning units shall not process more than 164.5 tons per hour (tons/hour) grain, 601,133 tons/year grain. Compliance with this annual limit and other annual limits set by this permit shall be determined monthly from a running total of 12 consecutive months of data.~~
- c. The maximum rated air flow rate of the affected baghouse shall not exceed 26,000 standard cubic feet per minute (scfm).
- d.
  - i. Natural gas shall be the only fuel fired in the affected grain dryers.
  - ii. Fuel usage of the affected grain dryers shall not exceed ~~3240 million standard cubic feet (mmscf) per month (mmscf/month) and 318.5 million standard cubic feet (mmscf) per year (mmscf/year).~~
- e. ~~The column plate perforation of each affected grain dryer shall not exceed 2.4 mm diameter (0.094 inch).~~

**Commented [RD1]:** Condition revised to address an annual limit for the input to the grain cleaning units, i.e., "dirty" beans, as suggested by Bunge's 12/16/22 e-mail.

**Commented [RD2]:** In response to Comment 2:  
This limit is based on information provided in the application for the baghouse. The limits for controlled emissions PM, PM<sub>10</sub> and PM<sub>2.5</sub> were calculated using this value for baghouse airflow. Accordingly, this condition will remain in the permit.

**Commented [RD3]:** In response to Comment 3:  
The Permit Section proposes increasing the monthly limit for fuel usage of the grain dryers to 1/8<sup>th</sup> the annual limit (approx. 39.8 mmscf).

**Commented [RD4]:** Included so that 40 CFR 60 Subpart DD does not apply to the grain dryers.

4-2. Emissions

- a. Emissions of particulates from the affected grain cleaning units shall not exceed the following:

Pollutant	Emissions	
	gr/dscf*	tons/year
PM	0.002	1.95
PM <sub>10</sub>		1.95
PM <sub>2.5</sub>	0.001	0.98

\* Grains (gr) per dry standard cubic foot (dscf)

- b.
  - i. Emissions from the affected grain dryers, including emissions from combustion, shall not exceed the following limits:

Pollutant	Emissions	
	pounds/hour	tons/year
PM	26.7	63.4
PM <sub>10</sub>	13.4	31.7
PM <sub>2.5</sub>	2.3	5.39
NOx*	6.7	15.9
CO	5.6	13.8
VOM**	0.2	0.98

\* Nitrogen oxides

\*\* Volatile organic material

- ii. This permit is issued based on negligible emissions of sulfur dioxide (SO<sub>2</sub>) from the affected grain dryers, i.e., emissions of no more than 0.44 tons/year.

5-1. Monitoring Requirements for the Affected Baghouse

- a. The Permittee shall install, operate, and maintain a bag leak detection system for the affected baghouse as specified in Conditions 5-1(b) and (c) and in accordance with the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.
- b. The bag leak detection system must meet the following specifications and requirements:
  - i. The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 4.6 milligrams per actual cubic meter (0.002 grains per actual cubic foot) or less.
  - ii. The bag leak detection system sensor must provide output of relative PM loadings. The Permittee shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).
  - iii. The bag leak detection system must be equipped with an alarm system that will alert operating personnel when the system detects an increase in relative particulate loading over the alarm set point and the alarm must be located such that it can be detected by operating personnel.
  - iv. In the initial adjustment of the bag leak detection system, the Permittee must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.
  - v. After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the operations, maintenance, and monitoring plan required by Condition 5-2. The Permittee must not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition.
  - vi. The Permittee must install the bag leak detection sensor downstream of the affected baghouse. If multiple bag leak detectors are required, detectors may share the system instrumentation and alarm.
  - vii. Each triboelectric bag leak detection system must be installed, operated, adjusted, and maintained so that it follows USEPA's "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997).

**Commented [R05]:** In response to comments pertaining to BLDS:

As discussed on the morning of 12/20, BLDS are important for demonstrating proper operation of the baghouse. Moreover, Bunge has not provided a supported technical rationale as to why BLDS should not be applied to the baghouse controlling the grain cleaning operations. Accordingly, requirements for BLDS will remain in the permit.

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- c. For the bag leak detection system, the Permittee must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. The Permittee must resolve the cause of the alarm within 3 hours of the alarm by taking necessary corrective action(s). Corrective actions may include, but are not limited to the following:

- i. Inspecting the affected baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
- ii. Sealing off defective bags or filter media;
- iii. Replacing defective bags or filter media or otherwise repairing the control device;
- iv. Sealing off a defective baghouse compartment;
- v. Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
- vi. Shutting down the process producing the PM emissions.

**Commented [RD6]:** In response to Comment 7:

Highlighted statement for emphasis.

The Permit Section acknowledges Bunge's comment that, "...The baghouse being installed are not designed to be able to seal off defective bags;" and, "the baghouse being installed are not designed to be able to seal off filter compartments."

It should be understood that Condition 5-1(c) lists examples of corrective actions.

5-2. Operations, Maintenance and Monitoring Plan for the Affected Baghouse

- a. The operations, maintenance, and monitoring plan must include the following:

- i. Process and control device parameters that the Permittee will monitor to determine compliance, along with established operating levels or ranges for the affected grain cleaning units operation and associated affected baghouse.
- ii. A monitoring schedule.
- iii. Procedures for properly operating and maintaining the affected baghouse used to meet the emission limits (0.002 and 0.001 gr/dscf) in Condition 4-1(ab) of this permit.
- iv. Procedures for keeping records to document compliance.
- v. Corrective actions you will take if process or control device parameters vary from the levels established during performance testing. For bag leak detection system alarms, example corrective actions that may be included in the operations, maintenance, and monitoring plan include:
  - A. Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.
  - B. Sealing off defective bags or filter media.
  - C. Replacing defective bags or filter media, or otherwise repairing the control device.

**Commented [RD7]:** In response to Comment 5:

The Permit Section agrees that this condition should reference a gr/dscf limit of 0.002, not 0.02. In addition, the gr/dscf limit for PM<sub>2.5</sub>, 0.001 gr/dscf, is also addressed by this condition.

**Commented [RD8]:** In response to Comment 7:

Highlighted statement for emphasis.

The Permit Section acknowledges Bunge's comment that, "...The baghouse being installed are not designed to be able to seal off defective bags;" and, "the baghouse being installed are not designed to be able to seal off filter compartments."

It should be understood that Condition 5-2(a)(v) lists examples of corrective actions.

- D. Sealing off a defective fabric filter compartment.
- E. Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.
- F. Shutting down the affected grain cleaning units.
- G. The Permittee shall notify the Illinois EPA's Compliance Section of any adjustment to the range, averaging period, alarm set points or alarm delay time. This notification shall be submitted to the Illinois EPA's Compliance Section within 30 days of any adjustment.

**Commented (RD9):** In response to Comment 8:  
This information for BIDS is tracked by our Compliance Section.

### 5-3. Inspection and Maintenance Requirements

- a. For the affected grain dryers, the Permittee shall conduct monthly inspections of the burners of the affected grain dryers. As part of these monthly inspections, the Permittee shall perform maintenance, including cleaning and/or replacement of components of the burners as necessary.

**Commented (RD10):** In response to Comment 11:  
The Permit Section proposes this monitoring for the burners of the grain dryers in lieu of stack testing.

### 6. Testing Requirements

- a. For the affected grain cleaning units, unless USEPA waives such testing as provided for by 40 CFR 60.8(b), the Permittee shall have performance tests conducted to demonstrate compliance with the applicable requirements of the NSPS, including 40 CFR 60.302(b) and (c)(2), and submit a written report for those tests to the Illinois EPA. The timing of these tests shall be in accordance with 40 CFR 60.8(a).
  - i. These performance tests shall be conducted using the methods specified in 40 CFR 60.303(b) or (c).
  - ii. The Permittee shall notify the Illinois EPA prior to these tests in accordance with 40 CFR 60.8(d).
- b. In addition to the testing required by Condition 6(a), within 180 days of initial startup of the affected grain cleaning units, the Permittee shall have emission testing conducted for PM<sub>10</sub> and PM<sub>2.5</sub> emissions of the affected grain cleaning units by an independent testing service in accordance with USEPA Methods 201A and 202. USEPA Method 202-5 may be used if all PM is assumed to be PM<sub>10</sub>/PM<sub>2.5</sub>. This testing may be coordinated with the performance testing required by Condition 6(a).

**Commented (RD11):** In general response to Comment 9:

Conditions have been updated to clarify that only the grain cleaning units are subject to testing under the NSPS.

- ~~Within 180 days of initial startup of the affected grain dryers, the Permittee shall have emission testing conducted for NOx and CO emissions of the affected grain dryers by an independent testing service in accordance with USEPA Methods 7 and 10, respectively. This testing may be coordinated with the performance testing required by Condition 6(a).~~

**Commented (RD12):** In response to Condition 12:

As discussed during our call on the morning of 12/20/22, these requirements are typical for construction permits where testing is required.

- ~~At least 60 days prior to the actual date of emission testing, a written test plan shall be submitted to the Illinois EPA for~~

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review. The Illinois EPA may at the discretion of the Compliance Section Manager (or designee) accept a written test plan less than 60 days prior to testing provided it does not interfere with the Illinois EPA's ability to review and comment on the protocol and does not deviate from the applicable state or federal statutes. This plan shall describe the specific procedures for testing, including as a minimum:

- i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
- ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be considered representative operating conditions and the means by which the operating parameters for the emission unit and any control equipment will be determined.
- iii. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.
- iv. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods.
- v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.
- vi. The format and content of the Source Test Report.

ed. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of the measurements shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of measurement shall be submitted a minimum of five working days prior to the actual date of the measurement. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe the measurements.

fe. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 60 days following the test. The Final Report shall include at a minimum:

- i. A summary of results.
- ii. General information.
- iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
- iv. Detailed description of test conditions, including:

- A. Process information, i.e., mode(s) of operation and process rate; and
  - B. Control equipment information, i.e., equipment condition and operating parameters during testing.
- V. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

#### 7. Recordkeeping Requirements

- a. For the affected units, the Permittee shall fulfill the recordkeeping requirements of the NSPS, including 40 CFR 60.7(b).
- b. The Permittee shall maintain records of the following items for the affected grain cleaning units in addition to other required records:
  - i. A file containing a copy of the manufacturer's specifications and recommended operating and maintenance procedures for the affected baghouse.
  - ii. Records for the amount of grain processed by the affected grain cleaning units (tons/month and tons/year).
  - iii. The following records related to particulate emissions:
    - A. The PM, PM<sub>10</sub> and PM<sub>2.5</sub> emission factor(s) and maximum hourly emissions rates used by the Permittee to determine emissions of the affected grain cleaning units with supporting documentation.
    - B. Records of all other data used or relied upon by the Permittee to determine the PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions of affected grain cleaning units.
    - C. PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions from the affected grain cleaning units based on appropriate emission factors and operating data (tons/month and tons/year), with supporting documentation and calculations.
- c. The Permittee shall keep the following information and records for the affected grain dryers:
  - i. A file containing the manufacturer, model number, serial number and the maximum design heat input capacity, if this information is not listed on a nameplate attached to the grain dryer.
  - ii. A file containing the determination of the maximum hourly emissions of PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub> and CO, VOM and SO<sub>2</sub> with supporting data and calculations.
  - iii. Records for natural gas usage (mmscf/month and mmscf/year), with supporting documentation and calculations.

**Commented [RD13]:** In response to Comment 13:

This condition is necessary to verify the baghouse is being properly operated and maintained in accordance with manufacturer's procedures.

The reliability and maintenance program maintained by Bunge, referenced by its comment provided by e-mail on 12/16/22, is not enforceable under this permit.

**Commented [RD14]:** As a general matter, the monthly records are used to calculate the rolling 12-month total.

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- iv. Records of actual emissions of PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NOx, CO and VOM (tons/month and tons/year), with supporting data and calculations.
- v. Records for inspections of and maintenance performed on the burners of the affected grain dryers, which include:
  - A. The date and time of inspection.
  - B. Maintenance performed on the burners, if any.

8. Notification and Reporting Requirements

- a. For the affected units, the Permittee shall fulfill all applicable notification and reporting requirements of the NSPS, including 40 CFR 60.7(a) and (b).
- b. The Permittee shall notify the Illinois EPA within 30 days of the following:
  - i. The date that the affected grain cleaning units begin operation.
  - ii. The date that the affected grain dryers begin operation.
  - iii. The date(s) that the existing grain cleaning and drying units are removed from the source.

9. Authorization to Operate

- a. The Permittee may operate the affected units pursuant to this construction permit until the CAAPP Permit is revised or renewed to address these units. This condition supersedes Standard Condition 6.

If you have any questions on this permit, please contact Daniel Rowell at 217/558-4368.

William D. Marr  
Manager, Permit Section  
Bureau of Air

WDM:DBR:

## ATTACHMENT 1

## Emissions Increases for the Project (Tons/Year)

Unit(s)	Pollutant						
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	NOx	CO	VOM	SO <sub>2</sub>
Baseline Actual Emissions of Existing Units <sup>a</sup>							
Grain Cleaning	0.2	0.2	0.1	-	-	-	-
Grain Drying	53.5	26.7	4.6	11.8	9.9	0.6	0.07
Subtotal	53.7	26.9	4.7	11.8	9.9	0.6	0.07
Potential Emissions of New Units							
Grain Cleaning	1.95	1.95	0.98	-	-	-	-
Grain Drying	63.4	31.7	6.37	15.9	13.8	0.88	0.10
Subtotal	65.4	33.7	7.35	15.9	13.8	0.88	0.10
Overall Increase <sup>b</sup>	11.7	6.8	2.65	4.1	3.9	0.3	0.03
Significant Emission Rate	25	15	10	40	100	40	40
Significant?	No	No	No	No	No	No	No

## Table Notes:

- a. Represents the baseline actual emissions of the existing grain cleaning and drying units for the 24-month baseline period beginning February 2015 and ending January 2017. The existing grain cleaning and drying units will be shut down as part of this project.
- b. Totals may not match sums due to rounding.





STATE OF ILLINOIS  
 ENVIRONMENTAL PROTECTION AGENCY  
 DIVISION OF AIR POLLUTION CONTROL  
 P. O. BOX 19506  
 SPRINGFIELD, ILLINOIS 62794-9506

**STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS  
 ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.
2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act, and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The Permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:
  - a. to enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,
  - b. to have access to and copy any records required to be kept under the terms and conditions of this permit,
  - c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
  - d. to obtain and remove samples of any discharge or emission of pollutants, and
  - e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
  - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,
  - b. does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,
  - c. does not release the Permittee from compliance with the other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,
  - d. does not take into consideration or attest to the structural stability of any units or parts of the project, and

- e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
- 6.
- a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.
  - b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.
7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:
- a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or
  - b. upon finding that any standard or special conditions have been violated, or
  - c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.

**Rowell, Daniel**

---

**From:** James Burris <James.Burris@bunge.com>  
**Sent:** Wednesday, December 21, 2022 10:29 AM  
**To:** Rowell, Daniel  
**Cc:** Schnepf, Jason  
**Subject:** [External] RE: Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

Daniel,

Below are our follow up comments on the revised Draft construction permit. I will give you a call this afternoon to discuss these so we can finalize the permit.

**Comments on Draft Construction Permit, Application No. 22110001**

**1) On pages 2, Condition 4-1.d.ii**

This condition states fuel usage of the grain dryer shall not exceed 40 MMCF per month and 318.5 MMCF per year.

Bunge proposes that this be changed to a 12-month rolling limit of 318.5 MMCF/year of natural gas use measured on a monthly basis satisfying the need for a short term limit.

**2) On pages 4, Condition 5-1**

This condition requires the facility to install, operate and maintain a bag leak detection system in accordance with manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system. Further in the condition IEPA specifies specific installation, operation, and adjustment requirements.

Bunge requests that the condition clarify that if there is a conflict between permit conditions and the manufacturer's written specifications and recommendations, that the manufacturer's written specifications and recommendations will be followed in lieu of the permit conditions.

**3) On pages 6, Condition 5-3.a**

This condition requires a monthly inspection of the grain dryer burners. Bunge performs grain dryer burner inspections on annual basis which requires the grain dryers to be shut down during the inspection. The condition to perform these inspections on a monthly basis would require the facility to shut the dryers down monthly for an extended period to perform the inspection safely (confined space entry), resulting in loss of production. The monthly requirement would result in 132 additional confined space entries per year.

Because the manufacturer of the dryers has extensive experience with these burners and has indicated they are very durable and long-lasting, rarely needing replacement, Bunge proposes to perform the burner inspection annually. Bunge requests that the condition state that the burners be inspected at least once per calendar year.

Thank you for your consideration of our comments,

**Jim Burris, PE**

Phone: 314-292-2937

Mobile: 314-308-3904

1391 Timberlake Manor Parkway  
Chesterfield, MO 63017

**BUNGE**

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Tuesday, December 20, 2022 4:11 PM  
**To:** James Burris <James.Burris@bunge.com>  
**Cc:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Subject:** RE: Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

**CAUTION:** This email originated from outside of Bunge. Do not click links or open attachments unless you recognize the sender !

Good afternoon Jim-

Please find attached to this e-mail a redline draft of the construction permit for the proposed grain cleaning and drying units at Bunge's Cairo facility. Where appropriate, the comments feature in Word has been used to briefly explain the Permit Section's position on changes to the draft and/or responses to Bunge's comments. This draft continues to include requirements for a bag leak detection system (BLDS) for the baghouse that would control the grain cleaning units. As we discussed on our call this morning, BLDS is being required by the permit as Bunge has not provided justification why BLDS cannot be applied.

Your review, comments and feedback are appreciated. Please feel free to reach out if you have questions

Thanks-

Daniel Rowell, P.E.

Technical Expert, Construction Unit  
 Illinois EPA, Bureau of Air Ph: 217-558-4368  
 1021 North Grand Avenue East  
 Springfield, Illinois 62794

**From:** James Burris <James.Burris@bunge.com>  
**Sent:** Friday, December 16, 2022 8:38 AM  
**To:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Cc:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
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Daniel,

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Bunge proposes that this be changed to a 12-month rolling limit of 1,441,020 tons/year of clean beans processed measured on a monthly basis satisfying the need for a short term limit.

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Bunge feels that this condition is not necessary. The baghouse is required to be tested to demonstrate compliance with the hourly emission rates. During the test, the air flow rate will be measured. While the fan is rated at 26,000 scfm, the air flow may fluctuate due to balancing of the air flow needed in the cleaning system. Air flow rates measured during the stack test might be shown to exceed 26,000 scfm while at the same time show hourly emission rates below the permitted limits. Bunge does not want to show compliance with emission limits only to be out of compliance with an air flow rate. Bunge proposes to remove this condition because the compliance stack test will be sufficient to demonstrate compliance with the hourly emission rate limits.

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This condition requires the facility to install and use a bag leak detection system to assure that the grain cleaning system baghouse is in compliance with the permitted emission rate limits and is operating as intended.

Bunge proposes an alternative method of compliance assurance. Bunge proposes to perform daily visible emission observations and if any visible emissions are observed, the cleaning system equipment and baghouse would be shut down within one hour to investigate correct the issue. After any corrective actions are taken, a follow up visible emissions observation will be taken to confirm that the repairs were effective. The daily visible emissions observations would be recorded along with any corrective actions and follow up visible emissions results. Visible emissions observations are a reliable method for monitoring a baghouse for proper operation and are employed for other baghouses at this facility.

**5) On page 5, Condition 5-2.a.iii**

This condition references a grain cleaning system baghouse limit of 0.02 gr/dscf. Bunge believes this limit should be 0.002 gr/dscf.

**6) On page 5, Condition 5-2.a.v**

This condition includes a reference to a bag leak detection system. Bunge has proposed a monitoring method that does not include a bag leak detection system. This reference can be removed. See comment 2.

**7) On page 5, Condition 5-2.a.v.B, D and E**

Condition B indicates that the operations, maintenance and monitoring plan should include "Sealing off defective bags or filter media". The baghouse being installed are not designed to be able to seal off defective bags. Defective bags will be replaced. This condition can be removed.

Condition D indicates that the operations, maintenance and monitoring plan should include "Sealing off defective fabric filter compartments". The baghouse being installed are not designed to be able to seal off filter compartments. Defective filter compartments will be repaired. This condition can be removed.

Condition E indicates that the operations, maintenance and monitoring plan should include "Cleaning the bag leak detection probe, or otherwise repairing the bag leak detection system". Bunge has proposed a monitoring method that does not include a bag leak detection system. This condition can be removed.

**8) On page 5, Condition 5-2.a.v.G**

This condition requires the facility to submit notifications to IEPA when the range, averaging period, alarm set points or alarm delay time are adjusted.

Bunge does not understand the purpose of this condition or when it would apply. Bunge feels that this condition should be removed.

**9) On page 6, Condition 6.a**

This condition is in reference to compliance testing required by NSPS, subpart DD. This project does not involve any affected facilities covered under subpart DD subject to compliance testing. This condition can be removed.

**10) On page 6, Condition 6.b**

This condition requires the facility to perform a PM10 and PM2.5 compliance test using Methods 201A and 202, noting that Method 202 may be used if all PM is assumed to be PM10/PM2.5. Bunge believes the alternate method should be Method 5.

**11) On page 6, Condition 6.b and c**

Condition b requires the facility to perform a PM10 and PM2.5 compliance test on the "affected units" which includes the grain dryers, and condition c requires the facility to perform a CO and NOx compliance testing on the grain dryers. The exhaust from the grain dryers does not pass through a stack, it passes through the screened walls of the dryers. Performing these tests is not possible. In lieu of performing the compliance tests, Bunge proposes to follow the NSPS, subpart DD requirement to install a dryer with screen perforations not exceeding 0.094 inches (2.4 mm) and include in their operation, maintenance and monitoring plan a requirement to perform an annual inspection of the dryer's burners and repair/replace as necessary to ensure efficient combustion and that the dryers are operating as designed.

**12) On page 6, Condition 6.d**

This condition requires a written test plan be submitted to IEPA and specifies what the test plan should include. Illinois regulation 35 IAC 283.220(c) specifies what is required to be in a test plan. It states that a test plan must specify:

- The purpose of the test,
- The operating parameters,
- The test method, and
- Any other procedures that will be followed when conducting an emissions test pursuant to the provisions of this Part.

Furthermore, 35 IAC 283.220(d) states that a test plan need not be submitted where the source intends to use a standard test method or procedure.

Bunge requests that this condition be amended so that the required content of a test plan is consistent with what is required by the regulation and add language to incorporate the part of the regulation that allows for circumstances when a test plan is not required.

**13) On page 8, Condition 7.b.i**

This condition requires a file containing a copy of the manufacturer's specifications and recommended operating and maintenance procedures for the grain cleaning system baghouse.

Bunge feels that this requirement is not necessary. Bunge incorporates manufacturer recommendations into its reliability and maintenance program. The maintenance and operation of the baghouse will be incorporated into the operation, maintenance and monitoring plan required by condition 5-2.

**14) On page 8, Condition 7.b.ii.C and 7.c.iv**

These conditions require the maintenance of records of emissions on a ton/month basis. There are no monthly emission limits to comply with. Bunge maintains emission records on a monthly basis, but the emissions calculated and recorded are a ton/12-month rolling basis. Bunge requests that the requirement to maintain a record of monthly emissions be replaced with a requirement to keep a record of the 12-month rolling emissions on a monthly basis.

Thank you,

**Jim Burris, PE**

Phone: 314-292-2937

Mobile: 314-308-3904

1391 Timberlake Manor Parkway  
Chesterfield, MO 63017



**From:** Rowell, Daniel <[Daniel.Rowell@illinois.gov](mailto:Daniel.Rowell@illinois.gov)>  
**Sent:** Tuesday, December 13, 2022 11:18 AM  
**To:** James Burris <[James.Burris@bunge.com](mailto:James.Burris@bunge.com)>  
**Cc:** Schnepf, Jason <[Jason.Schnepf@illinois.gov](mailto:Jason.Schnepf@illinois.gov)>  
**Subject:** Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

**CAUTION:** This email originated from outside of Bunge. Do not click links or open attachments unless you recognize the sender !

Good morning Jim,

Please find attached to this e-mail a draft construction permit for the proposed grain cleaning and drying units at Bunge's Cairo facility. Note that this draft would require Bunge to install a bag leak detection system (BLDS) on the baghouse controlling the grain cleaning units. This is due to Bunge relying on this baghouse to substantially reduce emissions of particulates (PM, PM10 and PM2.5) so that this project does not result in a significant increase in emissions of particulates for purposes of Illinois' rules for Prevention of Significant Deterioration (PSD), 35 IAC Part 204. In addition, as Bunge's Cairo facility is located in an Environmental Justice (EJ) area, BLDS monitoring provides assurance that the baghouse is operating to effectively control particulates so as to not increase emissions of the facility, consistent with the Permit Section's objectives for sources located in EJ areas.

If BLDS cannot be used on the baghouse controlling the grain cleaning units, Bunge will need to provide adequate justification as to why BLDS cannot reasonably be applied.

Your review, comments and feedback on the draft permit are appreciated. If you have any questions during your review, please feel free to reach out to me.

Thanks-

Daniel Rowell, P.E.

## ILLINOIS EPA

Technical Expert, Construction Unit  
Bureau of Air  
1021 North Grand Avenue East  
Springfield, Illinois 62794

Ph: 217-558-4368

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**Rowell, Daniel**

---

**From:** DoNotReply.EJRequest@illinois.gov  
**Sent:** Wednesday, December 21, 2022 10:59 AM  
**To:** Metz, Cassandra; Frost, Brad; Pressnall, Chris; Herr, Alane; Mensah, James; Rowell, Daniel  
**Subject:** EJ Release Requested for Bunge North America Inc | 003005AAI | 22110001 | Air

Permit section review is complete for (Bunge North America Inc).

EJ release is needed.

**Rowell, Daniel**

---

**From:** Rowell, Daniel  
**Sent:** Wednesday, December 21, 2022 11:06 AM  
**To:** James Burris  
**Subject:** RE: Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

Jim-

I can be available at 1:30 this afternoon to discuss. Does this time work for you?

Thanks-  
 Daniel

**From:** James Burris <James.Burris@bunge.com>  
**Sent:** Wednesday, December 21, 2022 10:29 AM  
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Bunge feels that this requirement is not necessary. Bunge incorporates manufacturer recommendations into its reliability and maintenance program. The maintenance and operation of the baghouse will be incorporated into the operation, maintenance and monitoring plan required by condition 5-2.

**14) On page 8, Condition 7.b.ii.C and 7.c.iv**

These conditions require the maintenance of records of emissions on a ton/month basis. There are no monthly emission limits to comply with. Bunge maintains emission records on a monthly basis, but the emissions calculated and recorded are a ton/12-month rolling basis. Bunge requests that the requirement to maintain a record of monthly emissions be replaced with a requirement to keep a record of the 12-month rolling emissions on a monthly basis.

Thank you,

**Jim Burris, PE**

Phone: 314-292-2937

Mobile: 314-308-3904

1391 Timberlake Manor Parkway  
Chesterfield, MO 63017



**From:** Rowell, Daniel <[Daniel.Rowell@illinois.gov](mailto:Daniel.Rowell@illinois.gov)>  
**Sent:** Tuesday, December 13, 2022 11:18 AM  
**To:** James Burris <[James.Burris@bunge.com](mailto:James.Burris@bunge.com)>  
**Cc:** Schnepf, Jason <[Jason.Schnepf@Illinois.gov](mailto:Jason.Schnepf@Illinois.gov)>  
**Subject:** Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

**CAUTION: This email originated from outside of Bunge. Do not click links or open attachments unless you recognize the sender !**

Good morning Jim,

Please find attached to this e-mail a draft construction permit for the proposed grain cleaning and drying units at Bunge's Cairo facility. Note that this draft would require Bunge to install a bag leak detection system (BLDS) on the baghouse controlling the grain cleaning units. This is due to Bunge relying on this baghouse to substantially reduce emissions of particulates (PM, PM10 and PM2.5) so that this project does not result in a significant increase in emissions of particulates for purposes of Illinois' rules for Prevention of Significant Deterioration (PSD), 35 IAC Part 204. In addition, as Bunge's Cairo facility is located in an Environmental Justice (EJ) area, BLDS monitoring provides assurance that the baghouse is operating to effectively control particulates so as to not increase emissions of the facility, consistent with the Permit Section's objectives for sources located in EJ areas.

If BLDS cannot be used on the baghouse controlling the grain cleaning units, Bunge will need to provide adequate justification as to why BLDS cannot reasonably be applied.

Your review, comments and feedback on the draft permit are appreciated. If you have any questions during your review, please feel free to reach out to me.

Thanks-

Daniel Rowell, P.E.

## ILLINOIS EPA

Technical Expert, Construction Unit  
Bureau of Air  
1021 North Grand Avenue East  
Springfield, Illinois 62794

Ph: 217-558-4368

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If you received this message in error, please notify us immediately by telephone at +1 314 292-2000 and immediately delete this message from your system.

If you are not the intended recipient, you must not use, disclose, distribute or copy any part of this message.

**Rowell, Daniel**

---

**From:** James Burris <James.Burris@bunge.com>  
**Sent:** Wednesday, December 21, 2022 11:24 AM  
**To:** Rowell, Daniel  
**Subject:** [External] RE: Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

Yes, I will call you then.

**Jim Burris, PE**

**Phone:** 314-292-2937

**Mobile:** 314-308-3904

1391 Timberlake Manor Parkway  
Chesterfield, MO 63017



**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Wednesday, December 21, 2022 11:06 AM  
**To:** James Burris <James.Burris@bunge.com>  
**Subject:** RE: Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

**CAUTION:** This email originated from outside of Bunge. Do not click links or open attachments unless you recognize the sender !

Jim-

I can be available at 1:30 this afternoon to discuss. Does this time work for you?

Thanks-  
Daniel

**From:** James Burris <James.Burris@bunge.com>  
**Sent:** Wednesday, December 21, 2022 10:29 AM  
**To:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Cc:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Subject:** [External] RE: Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

Daniel,

Below are our follow up comments on the revised Draft construction permit. I will give you a call this afternoon to discuss these so we can finalize the permit.

**Comments on Draft Construction Permit, Application No. 22110001**

**1) On pages 2, Condition 4-1.d.ii**



This condition states fuel usage of the grain dryer shall not exceed 40 MMCF per month and 318.5 MMCF per year.

Bunge proposes that this be changed to a 12-month rolling limit of 318.5 MMCF/year of natural gas use measured on a monthly basis satisfying the need for a short term limit.

**2) On pages 4, Condition 5-1**

This condition requires the facility to install, operate and maintain a bag leak detection system in accordance with manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system. Further in the condition IEPA specifies specific installation, operation, and adjustment requirements.

Bunge requests that the condition clarify that if there is a conflict between permit conditions and the manufacturer's written specifications and recommendations, that the manufacturer's written specifications and recommendations will be followed in lieu of the permit conditions.

**3) On pages 6, Condition 5-3.a**

This condition requires a monthly inspection of the grain dryer burners. Bunge performs grain dryer burner inspections on annual basis which requires the grain dryers to be shut down during the inspection. The condition to perform these inspections on a monthly basis would require the facility to shut the dryers down monthly for an extended period to perform the inspection safely (confined space entry), resulting in loss of production. The monthly requirement would result in 132 additional confined space entries per year. Because the manufacturer of the dryers has extensive experience with these burners and has indicated they are very durable and long-lasting, rarely needing replacement, Bunge proposes to perform the burner inspection annually. Bunge requests that the condition state that the burners be inspected at least once per calendar year.

Thank you for your consideration of our comments,

**Jim Burris, PE**

Phone: 314-292-2937

Mobile: 314-308-3904

1391 Timberlake Manor Parkway  
Chesterfield, MO 63017

**BUNGE**

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>

**Sent:** Tuesday, December 20, 2022 4:11 PM

**To:** James Burris <James.Burris@bunge.com>

**Cc:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>

**Subject:** RE: Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

**CAUTION:** This email originated from outside of Bunge. Do not click links or open attachments unless you recognize the sender !

Good afternoon Jim-

Please find attached to this e-mail a redline draft of the construction permit for the proposed grain cleaning and drying units at Bunge's Cairo facility. Where appropriate, the comments feature in Word has been used to briefly explain the Permit Section's position on changes to the draft and/or responses to Bunge's comments. This draft continues to include requirements for a bag leak detection system (BLDS) for the baghouse that would control the grain cleaning

units. As we discussed on our call this morning, BLDS is being required by the permit as Bunge has not provided justification why BLDS cannot be applied.

Your review, comments and feedback are appreciated. Please feel free to reach out if you have questions

Thanks-

Daniel Rowell, P.E.

Technical Expert, Construction Unit  
 Illinois EPA, Bureau of Air Ph: 217-558-4368  
 1021 North Grand Avenue East  
 Springfield, Illinois 62794

**From:** James Burris <[James.Burris@bunge.com](mailto:James.Burris@bunge.com)>  
**Sent:** Friday, December 16, 2022 8:38 AM  
**To:** Rowell, Daniel <[Daniel.Rowell@illinois.gov](mailto:Daniel.Rowell@illinois.gov)>  
**Cc:** Schnepf, Jason <[Jason.Schnepf@Illinois.gov](mailto:Jason.Schnepf@Illinois.gov)>  
**Subject:** [External] RE: Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

Daniel,

Below are Bunge's comments on the Draft construction permit. Please let me know if you have any questions or if you would like to discuss any of the comments in more detail.

### **Comments on Draft Construction Permit, Application No. 22110001**

#### **1) On pages 2, Condition 4-1.b**

This condition limits the grain cleaning unit to 164.5 tons/hour. The grain cleaning system has an hourly design capacity of 300 tons/hour and can in a single hour clean 300 tons of grain. The 164.5 tons/hour is a long term limit based on an annual maximum throughput of 1,441,020 tons/year of clean beans or 1,601,133 tons/year of dirty beans (assuming 10% foreign material in beans received.) bottlenecked rate.

Bunge proposes that this be changed to a 12-month rolling limit of 1,441,020 tons/year of clean beans processed measured on a monthly basis satisfying the need for a short term limit.

#### **2) On pages 2, Condition 4-1.c**

This condition states the maximum rated air flow rate of the cleaning equipment baghouse shall not exceed 26,000 scfm.

Bunge feels that this condition is not necessary. The baghouse is required to be tested to demonstrate compliance with the hourly emission rates. During the test, the air flow rate will be measured. While the fan is rated at 26,000 scfm, the air flow may fluctuate due to balancing of the air flow needed in the cleaning system. Air flow rates measured during the stack test might be shown to exceed 26,000 scfm while at the same time show hourly emission rates below the permitted limits. Bunge does not want to show compliance with emission limits only to be out of compliance with an air flow rate. Bunge proposes to remove this condition because the compliance stack test will be sufficient to demonstrate compliance with the hourly emission rate limits.

#### **3) On pages 2, Condition 4-1.d.ii**

This condition states fuel usage of the grain dryer shall not exceed 32 MMCF per month and 318.5 MMCF per year.

Bunge believes it is possible that the dryers could exceed this monthly limit. For example, a very cold January with really wet beans could require a large quantity of fuel. Bunge proposes to eliminate the monthly limit and instead record the quantity of fuel used on a monthly basis and demonstrate compliance with the annual limit monthly on a 12-month rolling basis. This satisfies the need for a short term limit.

**4) On page 3, Condition 5-1, Monitoring Requirements**

This condition requires the facility to install and use a bag leak detection system to assure that the grain cleaning system baghouse is in compliance with the permitted emission rate limits and is operating as intended.

Bunge proposes an alternative method of compliance assurance. Bunge proposes to perform daily visible emission observations and if any visible emissions are observed, the cleaning system equipment and baghouse would be shut down within one hour to investigate correct the issue. After any corrective actions are taken, a follow up visible emissions observation will be taken to confirm that the repairs were effective. The daily visible emissions observations would be recorded along with any corrective actions and follow up visible emissions results. Visible emissions observations are a reliable method for monitoring a baghouse for proper operation and are employed for other baghouses at this facility.

**5) On page 5, Condition 5-2.a.iii**

This condition references a grain cleaning system baghouse limit of 0.02 gr/dscf. Bunge believes this limit should be 0.002 gr/dscf.

**6) On page 5, Condition 5-2.a.v**

This condition includes a reference to a bag leak detection system. Bunge has proposed a monitoring method that does not include a bag leak detection system. This reference can be removed. See comment 2.

**7) On page 5, Condition 5-2.a.v.B, D and E**

Condition B indicates that the operations, maintenance and monitoring plan should include "Sealing off defective bags or filter media". The baghouse being installed are not designed to be able to seal off defective bags. Defective bags will be replaced. This condition can be removed.

Condition D indicates that the operations, maintenance and monitoring plan should include "Sealing off defective fabric filter compartments". The baghouse being installed are not designed to be able to seal off filter compartments. Defective filter compartments will be repaired. This condition can be removed.

Condition E indicates that the operations, maintenance and monitoring plan should include "Cleaning the bag leak detection probe, or otherwise repairing the bag leak detection system". Bunge has proposed a monitoring method that does not include a bag leak detection system. This condition can be removed.

**8) On page 5, Condition 5-2.a.v.G**

This condition requires the facility to submit notifications to IEPA when the range, averaging period, alarm set points or alarm delay time are adjusted.

Bunge does not understand the purpose of this condition or when it would apply. Bunge feels that this condition should be removed.

**9) On page 6, Condition 6.a**

This condition is in reference to compliance testing required by NSPS, subpart DD. This project does not involve any affected facilities covered under subpart DD subject to compliance testing. This condition can be removed.

**10) On page 6, Condition 6.b**

This condition requires the facility to perform a PM10 and PM2.5 compliance test using Methods 201A and 202, noting that Method 202 may be used if all PM is assumed to be PM10/PM2.5. Bunge believes the alternate method should be Method 5.

**11) On page 6, Condition 6.b and c**

Condition b requires the facility to perform a PM10 and PM2.5 compliance test on the "affected units" which includes the grain dryers, and condition c requires the facility to perform a CO and NOx compliance testing

on the grain dryers. The exhaust from the grain dryers does not pass through a stack, it passes through the screened walls of the dryers. Performing these tests is not possible. In lieu of performing the compliance tests, Bunge proposes to follow the NSPS, subpart DD requirement to install a dryer with screen perforations not exceeding 0.094 inches (2.4 mm) and include in their operation, maintenance and monitoring plan a requirement to perform an annual inspection of the dryer's burners and repair/replace as necessary to ensure efficient combustion and that the dryers are operating as designed.

**12) On page 6, Condition 6.d**

This condition requires a written test plan be submitted to IEPA and specifies what the test plan should include. Illinois regulation 35 IAC 283.220(c) specifies what is required to be in a test plan. It states that a test plan must specify:

- The purpose of the test,
- The operating parameters,
- The test method, and
- Any other procedures that will be followed when conducting an emissions test pursuant to the provisions of this Part.

Furthermore, 35 IAC 283.220(d) states that a test plan need not be submitted where the source intends to use a standard test method or procedure.

Bunge requests that this condition be amended so that the required content of a test plan is consistent with what is required by the regulation and add language to incorporate the part of the regulation that allows for circumstances when a test plan is not required.

**13) On page 8, Condition 7.b.i**

This condition requires a file containing a copy of the manufacturer's specifications and recommended operating and maintenance procedures for the grain cleaning system baghouse.

Bunge feels that this requirement is not necessary. Bunge incorporates manufacturer recommendations into its reliability and maintenance program. The maintenance and operation of the baghouse will be incorporated into the operation, maintenance and monitoring plan required by condition 5-2.

**14) On page 8, Condition 7.b.ii.C and 7.c.iv**

These conditions require the maintenance of records of emissions on a ton/month basis. There are no monthly emission limits to comply with. Bunge maintains emission records on a monthly basis, but the emissions calculated and recorded are a ton/12-month rolling basis. Bunge requests that the requirement to maintain a record of monthly emissions be replaced with a requirement to keep a record of the 12-month rolling emissions on a monthly basis.

Thank you,

Jim Burris, PE

Phone: 314-292-2937

Mobile: 314-308-3904

1391 Timberlake Manor Parkway  
Chesterfield, MO 63017

**BUNGE**

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>

**Sent:** Tuesday, December 13, 2022 11:18 AM

**To:** James Burris <James.Burris@bunge.com>

Cc: Schnepf, Jason <Jason.Schnepf@Illinois.gov>

Subject: Draft Construction Permit for Grain Cleaning and Drying Units - Cairo

**CAUTION:** This email originated from outside of Bunge. Do not click links or open attachments unless you recognize the sender !

Good morning Jim,

Please find attached to this e-mail a draft construction permit for the proposed grain cleaning and drying units at Bunge's Cairo facility. Note that this draft would require Bunge to install a bag leak detection system (BLDS) on the baghouse controlling the grain cleaning units. This is due to Bunge relying on this baghouse to substantially reduce emissions of particulates (PM, PM10 and PM2.5) so that this project does not result in a significant increase in emissions of particulates for purposes of Illinois' rules for Prevention of Significant Deterioration (PSD), 35 IAC Part 204. In addition, as Bunge's Cairo facility is located in an Environmental Justice (EJ) area, BLDS monitoring provides assurance that the baghouse is operating to effectively control particulates so as to not increase emissions of the facility, consistent with the Permit Section's objectives for sources located in EJ areas.

If BLDS cannot be used on the baghouse controlling the grain cleaning units, Bunge will need to provide adequate justification as to why BLDS cannot reasonably be applied.

Your review, comments and feedback on the draft permit are appreciated. If you have any questions during your review, please feel free to reach out to me.

Thanks-

Daniel Rowell, P.E.

## ILLINOIS EPA

Technical Expert, Construction Unit  
Bureau of Air  
1021 North Grand Avenue East  
Springfield, Illinois 62794

Ph: 217-558-4368

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**Rowell, Daniel**

---

**From:** DoNotReply.EJRequest@illinois.gov  
**Sent:** Wednesday, December 21, 2022 11:24 AM  
**To:** Metz, Cassandra; Frost, Brad; Pressnall, Chris; Herr, Alane; Mensah, James; Rowell, Daniel  
**Subject:** Outreach Status Change for Bunge North America Inc | 003005AAI | 22110001 | Air

The EJ source (Bunge North America Inc) has moved forward in the outreach process on 12/21/2022.

The status has changed from \*Outreach In Progress\* to \*Complete - With Outreach\*.

**Rowell, Daniel**

---

**From:** Pressnall, Chris  
**Sent:** Wednesday, December 21, 2022 11:24 AM  
**To:** Rowell, Daniel; Metz, Cassandra; Frost, Brad; Herr, Alane; Mensah, James  
**Cc:** Schnepf, Jason  
**Subject:** RE: EJ Release Requested for Bunge North America Inc | 003005AAI | 22110001 | Air

It has been released.

*Chris Pressnall (he/him)*

Environmental Justice Coordinator  
 Illinois EPA

(217) 524-1284  
 (217) 785-8346 (fax)

[chris.pressnall@illinois.gov](mailto:chris.pressnall@illinois.gov)

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Wednesday, December 21, 2022 11:03 AM  
**To:** Metz, Cassandra <Cassandra.Metz@Illinois.gov>; Frost, Brad <Brad.Frost@Illinois.gov>; Pressnall, Chris <Chris.Pressnall@Illinois.gov>; Herr, Alane <Alane.Herr@Illinois.gov>; Mensah, James <James.Mensah@Illinois.gov>  
**Cc:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Subject:** RE: EJ Release Requested for Bunge North America Inc | 003005AAI | 22110001 | Air

Can we get EJ release for this application today? This is for an expedited application that we would like to take final action on today

Thanks-  
 Daniel

**From:** [DoNotReply.EJRequest@illinois.gov](mailto:DoNotReply.EJRequest@illinois.gov) <[DoNotReply.EJRequest@illinois.gov](mailto:DoNotReply.EJRequest@illinois.gov)>  
**Sent:** Wednesday, December 21, 2022 10:59 AM  
**To:** Metz, Cassandra <Cassandra.Metz@Illinois.gov>; Frost, Brad <Brad.Frost@Illinois.gov>; Pressnall, Chris <Chris.Pressnall@Illinois.gov>; Herr, Alane <Alane.Herr@Illinois.gov>; Mensah, James <James.Mensah@Illinois.gov>; Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Subject:** EJ Release Requested for Bunge North America Inc | 003005AAI | 22110001 | Air

Permit section review is complete for (Bunge North America Inc).

EJ release is needed.

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PERMIT REVIEW TRAVELER SHEET

I.D. # 003005AAI	Source Name Bunge North America Inc	Date Received 11-3-2022
Application # 22110001	Location Cairo	Date Opened 11-3-2022

Program TITLE V	Type CONSTRUCTION	Title V Type NEW
-----------------	-------------------	------------------

Flag	Date	Section	Contact	Expiration Date
	5-28-2019	COMP	COMPLIANCE SECTION MANAGER <i>ES AREA, per ES Start 11/3/22 DBR cleared JMS</i>	5-28-2029

Emissions(Tons/Year)	CO	NOX	PM	SO2	VOM	Total HAP	Highest Single HAP
Current Allowable Rates	71.83	63.74	211.13	.82	806.66	508.872	508.87 - HEXANE
Project/Total Increase	+3.9	+4.1	+11.7	+0.03	+0.3	-	-

Initial Completeness	Analyst	Unit Manager	Date of Determination	Application Complete?
CAAPP Completeness <input type="checkbox"/> N/A				<input type="checkbox"/> Yes <input type="checkbox"/> No
Fee Completeness <input type="checkbox"/> N/A	<i>DBR</i>	<i>JMS</i>	<i>12/8/2022</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Technical Completeness		<i>JMS</i>	<i>12-21-2022</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Welcome Phone Call to Permit Applicant

Date	Contact Name	Telephone#	Was Additional Information Requested?

For Incomplete Applications	Analyst	Unit Manager	Date Issued	Number of Items Requested (or Amount of Fee Requested)
Type of Letter Sent				\$
Notice of Additional Fees:				
Notice of Incompleteness(NOI)				
Request for Additional Information(RAI)				
All Required Information Received?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Date Received	
Notice of Intent to Deny CAAPP				

Permit Processing	Analyst	Date	Unit Manager	Date
Draft Prepared for Unit Manager Review & Comments Returned to Analyst	<i>DBR</i>	<i>12/8/2022</i>	<i>JMS</i>	
Final Draft Sent to Applicant for Comments	<i>DBR</i>	<i>12/13/2022</i>	<i>JMS</i>	
Submitted to Word Processing				
Draft Permit to Community Relations <input type="checkbox"/> N/A				
Public Comment Period Initiated				
Public Hearing Date <input type="checkbox"/> N/A				
Public Comment Period Completed <input type="checkbox"/> N/A				
45 Day USEPA Comment Period <input type="checkbox"/> N/A				
USEPA Comments Received <input type="checkbox"/> Yes <input type="checkbox"/> No				
Responsiveness Summary Completed <input type="checkbox"/> N/A				
Public Participation Completed				
Final Action (Fill in One)	Analyst	Date	Unit Manager	Date
<input type="checkbox"/> Permit Not Required				
<input checked="" type="checkbox"/> Grant			<i>JMS</i>	<i>12-21-2022</i>
<input type="checkbox"/> Deny				

Mail-Out	<input type="checkbox"/> District Office	<input type="checkbox"/> Public Participation List	<input type="checkbox"/> Cook County	<input type="checkbox"/> Health Dept
	<input type="checkbox"/> Enforcement	<input type="checkbox"/> Other	Init <i>AD</i>	Date <i>12-21-2022</i>

Permit Electronically Sent to	Applicant	CES	DLC	Community Relations	USEPA	AQPS	FOS
Person Sending (Initials)							

**Rowell, Daniel**

---

**From:** Rowell, Daniel  
**Sent:** Wednesday, December 21, 2022 1:52 PM  
**To:** Walton, Marlisha M.; Nation, Trent; Rothenberg, Marcus A.; Adelman, Amy M.  
**Cc:** Schnepf, Jason  
**Subject:** [EXPEDITE] Construction Permit for Bunge  
**Attachments:** Bunge.NA.-.Grain.Cleaning.Drying-DRAFT.122122.doc

Please prepare the attached permit for signature. This is an expedited permit that we need to take action on today

Thanks-  
Daniel

217/785-1705

CONSTRUCTION PERMIT  
NSPS SOURCEPERMITTEE

Bunge North America, Inc.  
Attn: Christopher Cunningham, Plant Manager  
203 34<sup>th</sup> Street  
Cairo, Illinois 62914

Application No.: 22110001I.D. No.: 003005AAIApplicant's Designation:Date Received: November 3, 2022Subject: Grain Cleaning and Drying UnitsDate Issued: December 21, 2022Location: 203 34<sup>th</sup> Street, Cairo, Alexander County

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of grain cleaning and drying units, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s).

1. Introduction

- a. This permit addresses the following at this grain processing plant, which processes soybeans into vegetable oil and animal feeds:
  - i. Construction of one new grain cleaning operation, consisting of units that would be used to clean, i.e., separate foreign matter, such as sticks and stones from, grain. A new baghouse would be constructed to control emissions of particulates from this operation. The new grain cleaning units and baghouse would take the place of the existing grain cleaning units and baghouse, which have reached the end of their useful life and will be removed from the source.
  - ii. Construction of six new gas-fired grain dryers. The new grain dryers would take the place of the existing two grain dryers, which have reached the end of their useful life and will be removed from the source.
- b. While the new units addressed by Conditions 1(a)(i) and (ii) will have the capacity to process more grain than the existing grain cleaning and drying units, the new units would continue to be bottlenecked by downstream process units at this plant. In this regard, this permit includes enforceable limits on the operation of these new units so that there would not be an increase in the amount of grain that could be processed by or emissions of downstream process units. (See Condition 4-1.)
- c. For purposes of this permit:

- i. The units comprising the grain cleaning operation addressed by Condition 1(a)(i) are referred to as the "affected grain cleaning units."
- ii. The new baghouse that would be used to control the affected grain cleaning units is referred to as the "affected baghouse."
- iii. The new grain dryers addressed by Condition 1(a)(ii) are referred to as the "affected grain dryers."
- iv. The affected grain cleaning units and affected grain dryers are collectively referred to as the "affected units."

## 2. Coordination With Other Permits

- a. Except as specifically provided, for the affected units, the Permittee shall comply with all applicable requirements for grain cleaning and drying units, including emissions standards and limits and related testing, recordkeeping and reporting requirements, as addressed by Section 4.2 of the Clean Air Act Permit Program (CAAPP) Permit issued for the source, Permit 96030140 (the "CAAPP Permit"), including the following:
  - i. Requirements of the New Source Performance Standards (NSPS) for Grain Elevators, 40 CFR 60 Subpart DD.
  - ii. Emissions standards for visible and particulate matter emissions under 35 IAC Part 212, including 35 IAC 212.123(a) (opacity of emissions), 35 IAC 212.301 (fugitive particulate matter), and 35 IAC 212 Subpart S (Agriculture).
  - iii. For the affected grain dryers, emissions standards for carbon monoxide (CO) emissions, including 35 IAC 216.121.

## 3. Nonapplicability Provisions

- a. This permit is issued based on this project not being a major modification for purposes of Illinois' rules for Prevention of Significant Deterioration, 35 IAC Part 204. This is because this project will not result in a significant increase in emissions. (See Attachment 1.)
- b. This permit is issued based on the affected grain dryers not being subject to the particulate matter standard of the NSPS, 40 CFR 60.301(a)(1), i.e., 0 percent opacity from any column dryer with column plate perforation exceeding 2.4 mm (0.094 inch). This is because the affected grain dryers will have column plate perforation that will not exceed 2.4 mm (0.094 inch). (See Condition 4-1(e)).
- c. This permit is issued based on the affected units not being subject to the state emission standards for particulate matter emissions in 35 IAC 212.321(a). As generally provided by 35 IAC 212.461(a), 35 IAC 212.321 shall not apply to grain handling and drying operations.

4-1. Operational Limits and Requirements

- a. The existing grain cleaning and drying units shall be permanently shut down before the affected units begin operation.
- b. The affected grain cleaning units shall not process more than 1,601,133 tons/year grain. Compliance with this annual limit and other annual limits set by this permit shall be determined monthly from a running total of 12 consecutive months of data.
- c. The maximum rated air flow rate of the affected baghouse shall not exceed 26,000 standard cubic feet per minute (scfm).
- d.
  - i. Natural gas shall be the only fuel fired in the affected grain dryers.
  - ii. Fuel usage of the affected grain dryers shall not exceed 53.1 million standard cubic feet (mmscf) per month (mmscf/month) and 318.5 million standard cubic feet (mmscf) per year (mmscf/year).
- e. The column plate perforation of each affected grain dryer shall not exceed 2.4 mm diameter (0.094 inch).

4-2. Emissions

- a. Emissions of particulates from the affected grain cleaning units shall not exceed the following:

Pollutant	Emissions	
	gr/dscf*	tons/year
PM	0.002	1.95
PM <sub>10</sub>		1.95
PM <sub>2.5</sub>	0.001	0.98

\* Grains (gr) per dry standard cubic foot (dscf)

- b.
  - i. Emissions from the affected grain dryers, including emissions from combustion, shall not exceed the following limits:

Pollutant	Emissions	
	pounds/hour	tons/year
PM	26.7	63.4
PM <sub>10</sub>	13.4	31.7
PM <sub>2.5</sub>	2.3	5.39
NO <sub>x</sub> *	6.7	15.9
CO	5.6	13.8
VOM**	0.2	0.98

\* Nitrogen oxides

\*\* Volatile organic material

- ii. This permit is issued based on negligible emissions of sulfur dioxide (SO<sub>2</sub>) from the affected grain dryers, i.e., emissions of no more than 0.44 tons/year.

5-1. Monitoring Requirements for the Affected Baghouse

- a. The Permittee shall install, operate, and maintain a bag leak detection system for the affected baghouse as specified in Conditions 5-1(b) and (c) and in accordance with the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.
- b. The bag leak detection system must meet the following specifications and requirements:
  - i. The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 4.6 milligrams per actual cubic meter (0.002 grains per actual cubic foot) or less.
  - ii. The bag leak detection system sensor must provide output of relative PM loadings. The Permittee shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).
  - iii. The bag leak detection system must be equipped with an alarm system that will alert operating personnel when the system detects an increase in relative particulate loading over the alarm set point and the alarm must be located such that it can be detected by operating personnel.
  - iv. In the initial adjustment of the bag leak detection system, the Permittee must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.
  - v. After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the operations, maintenance, and monitoring plan required by Condition 5-2. The Permittee must not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition.
  - vi. The Permittee must install the bag leak detection sensor downstream of the affected baghouse. If multiple bag leak detectors are required, detectors may share the system instrumentation and alarm.
  - vii. Each triboelectric bag leak detection system must be installed, operated, adjusted, and maintained so that it follows USEPA's "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997).

- c. For the bag leak detection system, the Permittee must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. The Permittee must resolve the cause of the alarm within 3 hours of the alarm by taking necessary corrective action(s). Corrective actions may include, but are not limited to the following:
- i. Inspecting the affected baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
  - ii. Sealing off defective bags or filter media;
  - iii. Replacing defective bags or filter media or otherwise repairing the control device;
  - iv. Sealing off a defective baghouse compartment;
  - v. Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
  - vi. Shutting down the process producing the PM emissions.

5-2. Operations, Maintenance and Monitoring Plan for the Affected Baghouse

- a. The operations, maintenance, and monitoring plan must include the following:
- i. Process and control device parameters that the Permittee will monitor to determine compliance, along with established operating levels or ranges for the affected grain cleaning units operation and associated affected baghouse.
  - ii. A monitoring schedule.
  - iii. Procedures for properly operating and maintaining the affected baghouse used to meet the emission limits (0.002 and 0.001 gr/dscf) in Condition 4-1(b) of this permit.
  - iv. Procedures for keeping records to document compliance.
  - v. Corrective actions you will take if process or control device parameters vary from the levels established during performance testing. For bag leak detection system alarms, example corrective actions that may be included in the operations, maintenance, and monitoring plan include:
    - A. Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.
    - B. Sealing off defective bags or filter media.
    - C. Replacing defective bags or filter media, or otherwise repairing the control device.



- D. Sealing off a defective fabric filter compartment.
- E. Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.
- F. Shutting down the affected grain cleaning units.
- G. The Permittee shall notify the Illinois EPA's Compliance Section of any adjustment to the range, averaging period, alarm set points or alarm delay time. This notification shall be submitted to the Illinois EPA's Compliance Section within 30 days of any adjustment.

5-3. Inspection and Maintenance Requirements

- a. For the affected grain dryers, the Permittee shall conduct inspections of the burners of the affected grain dryers once per calendar year. As part of these inspections, the Permittee shall perform maintenance, including cleaning and/or replacement of components of the burners as necessary.

6. Testing Requirements

- a. For the affected grain cleaning units, unless USEPA waives such testing as provided for by 40 CFR 60.8(b), the Permittee shall have performance tests conducted to demonstrate compliance with the applicable requirements of the NSPS, including 40 CFR 60.302(b) and (c)(2), and submit a written report for those tests to the Illinois EPA. The timing of these tests shall be in accordance with 40 CFR 60.8(a).
  - i. These performance tests shall be conducted using the methods specified in 40 CFR 60.303(b) or (c).
  - ii. The Permittee shall notify the Illinois EPA prior to these tests in accordance with 40 CFR 60.8(d).
- b. In addition to the testing required by Condition 6(a), within 180 days of initial startup of the affected grain cleaning units, the Permittee shall have emission testing conducted for PM<sub>10</sub> and PM<sub>2.5</sub> emissions of the affected grain cleaning units by an independent testing service in accordance with USEPA Methods 201A and 202. USEPA Method 5 may be used if all PM is assumed to be PM<sub>10</sub>/PM<sub>2.5</sub>. This testing may be coordinated with the performance testing required by Condition 6(a).
- c. At least 60 days prior to the actual date of emission testing, a written test plan shall be submitted to the Illinois EPA for review. The Illinois EPA may at the discretion of the Compliance Section Manager (or designee) accept a written test plan less than 60 days prior to testing provided it does not interfere with the Illinois EPA's ability to review and comment on the protocol and does not deviate from the applicable state or federal statutes. This plan shall describe the specific procedures for testing, including as a minimum:

- i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
  - ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be considered representative operating conditions and the means by which the operating parameters for the emission unit and any control equipment will be determined.
  - iii. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.
  - iv. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods.
  - v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.
  - vi. The format and content of the Source Test Report.
- d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of the measurements shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of measurement shall be submitted a minimum of five working days prior to the actual date of the measurement. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe the measurements.
- e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 60 days following the test. The Final Report shall include at a minimum:
- i. A summary of results.
  - ii. General information.
  - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
  - iv. Detailed description of test conditions, including:
    - A. Process information, i.e., mode(s) of operation and process rate; and
    - B. Control equipment information, i.e., equipment condition and operating parameters during testing.

- v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

7. Recordkeeping Requirements

- a. For the affected units, the Permittee shall fulfill the recordkeeping requirements of the NSPS, including 40 CFR 60.7(b).
- b. The Permittee shall maintain records of the following items for the affected grain cleaning units in addition to other required records:
  - i. A file containing a copy of the manufacturer's specifications and recommended operating and maintenance procedures for the affected baghouse.
  - ii. Records for the amount of grain processed by the affected grain cleaning units (tons/month and tons/year).
  - iii. The following records related to particulate emissions:
    - A. The PM, PM<sub>10</sub> and PM<sub>2.5</sub> emission factor(s) and maximum hourly emissions rates used by the Permittee to determine emissions of the affected grain cleaning units with supporting documentation.
    - B. Records of all other data used or relied upon by the Permittee to determine the PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions of affected grain cleaning units.
    - C. PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions from the affected grain cleaning units based on appropriate emission factors and operating data (tons/month and tons/year), with supporting documentation and calculations.
- c. The Permittee shall keep the following information and records for the affected grain dryers:
  - i. A file containing the manufacturer, model number, serial number and the maximum design heat input capacity, if this information is not listed on a nameplate attached to the grain dryer.
  - ii. A file containing the determination of the maximum hourly emissions of PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub> and CO, VOM and SO<sub>2</sub> with supporting data and calculations.
  - iii. Records for natural gas usage (mmscf/month and mmscf/year), with supporting documentation and calculations.
  - iv. Records of actual emissions of PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, CO and VOM (tons/month and tons/year), with supporting data and calculations.
  - v. Records for inspections of and maintenance performed on the burners of the affected grain dryers, which include:

- A. The date and time of inspection.
- B. Maintenance performed on the burners, if any.

8. Notification and Reporting Requirements

- a. For the affected units, the Permittee shall fulfill all applicable notification and reporting requirements of the NSPS, including 40 CFR 60.7(a) and (b).
- b. The Permittee shall notify the Illinois EPA within 30 days of the following:
  - i. The date that the affected grain cleaning units begin operation.
  - ii. The date that the affected grain dryers begin operation.
  - iii. The date(s) that the existing grain cleaning and drying units are removed from the source.

9. Authorization to Operate

- a. The Permittee may operate the affected units pursuant to this construction permit until the CAAPP Permit is revised or renewed to address these units. This condition supersedes Standard Condition 6.

If you have any questions on this permit, please contact Daniel Rowell at 217/558-4368.

William D. Marr  
Manager, Permit Section  
Bureau of Air

WDM:DBR:

## ATTACHMENT 1

## Emissions Increases for the Project (Tons/Year)

Unit(s)	Pollutant						
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>x</sub>	CO	VOM	SO <sub>2</sub>
Baseline Actual Emissions of Existing Units <sup>a</sup>							
Grain Cleaning	0.2	0.2	0.1	-	-	-	-
Grain Drying	53.5	26.7	4.6	11.8	9.9	0.6	0.07
Subtotal	53.7	26.9	4.7	11.8	9.9	0.6	0.07
Potential Emissions of New Units							
Grain Cleaning	1.95	1.95	0.98	-	-	-	-
Grain Drying	63.4	31.7	5.39	15.9	13.8	0.88	0.10
Subtotal	65.4	33.7	6.37	15.9	13.8	0.88	0.10
Overall Increase <sup>b</sup>	11.7	6.8	1.7	4.1	3.9	0.3	0.03
Significant Emission Rate	25	15	10	40	100	40	40
Significant?	No	No	No	No	No	No	No

## Table Notes:

- a. Represents the baseline actual emissions of the existing grain cleaning and drying units for the 24-month baseline period beginning February 2015 and ending January 2017. The existing grain cleaning and drying units will be shut down as part of this project.
- b. Totals may not match sums due to rounding.



STATE OF ILLINOIS  
 ENVIRONMENTAL PROTECTION AGENCY  
 DIVISION OF AIR POLLUTION CONTROL  
 P. O. BOX 19506  
 SPRINGFIELD, ILLINOIS 62794-9506

**STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS  
 ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.
2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act, and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The Permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:
  - a. to enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,
  - b. to have access to and copy any records required to be kept under the terms and conditions of this permit,
  - c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
  - d. to obtain and remove samples of any discharge or emission of pollutants, and
  - e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
  - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,
  - b. does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,
  - c. does not release the Permittee from compliance with the other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,
  - d. does not take into consideration or attest to the structural stability of any units or parts of the project, and

- e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
- 6.
- a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.
  - b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.
7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:
- a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or
  - b. upon finding that any standard or special conditions have been violated, or
  - c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.

**Rowell, Daniel**

---

**From:** Schnepf, Jason  
**Sent:** Wednesday, December 21, 2022 1:53 PM  
**To:** Rowell, Daniel  
**Subject:** RE: [EXPEDITE] Construction Permit for Bunge

Thanks for getting this finalized.

Jason Schnepf  
Manager, CAAPP Construction Unit  
217-524-3724

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Wednesday, December 21, 2022 1:52 PM  
**To:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>; Nation, Trent <Trent.Nation@Illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@Illinois.gov>; Adelman, Amy M. <Amy.M.Adelman@Illinois.gov>  
**Cc:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Subject:** [EXPEDITE] Construction Permit for Bunge

Please prepare the attached permit for signature. This is an expedited permit that we need to take action on today

Thanks-  
Daniel

State of Illinois - CONFIDENTIALITY NOTICE: The information contained in this communication is confidential, may be attorney-client privileged or attorney work product, may constitute inside information or internal deliberative staff communication, and is intended only for the use of the addressee. Unauthorized use, disclosure or copying of this communication or any part thereof is strictly prohibited and may be unlawful. If you have received this communication in error, please notify the sender immediately by return e-mail and destroy this communication and all copies thereof, including all attachments. Receipt by an unintended recipient does not waive attorney-client privilege, attorney work product privilege, or any other exemption from disclosure.



**Rowell, Daniel**

---

**From:** Nation, Trent  
**Sent:** Wednesday, December 21, 2022 2:08 PM  
**To:** Rowell, Daniel; Walton, Marlisha M.; Rothenberg, Marcus A.; Adelman, Amy M.  
**Cc:** Schnepf, Jason  
**Subject:** RE: [EXPEDITE] Construction Permit for Bunge  
**Attachments:** 22110001.doc

This is done and printed.

**From:** Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Sent:** Wednesday, December 21, 2022 1:52 PM  
**To:** Walton, Marlisha M. <Marlisha.Walton@Illinois.gov>; Nation, Trent <Trent.Nation@Illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@Illinois.gov>; Adelman, Amy M. <Amy.M.Adelman@Illinois.gov>  
**Cc:** Schnepf, Jason <Jason.Schnepf@Illinois.gov>  
**Subject:** [EXPEDITE] Construction Permit for Bunge

Please prepare the attached permit for signature. This is an expedited permit that we need to take action on today

Thanks-  
Daniel

State of Illinois - CONFIDENTIALITY NOTICE: The information contained in this communication is confidential, may be attorney-client privileged or attorney work product, may constitute inside information or internal deliberative staff communication, and is intended only for the use of the addressee. Unauthorized use, disclosure or copying of this communication or any part thereof is strictly prohibited and may be unlawful. If you have received this communication in error, please notify the sender immediately by return e-mail and destroy this communication and all copies thereof, including all attachments. Receipt by an unintended recipient does not waive attorney-client privilege, attorney work product privilege, or any other exemption from disclosure.



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 · (217) 782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

217/785-1705

## CONSTRUCTION PERMIT NSPS SOURCE

### PERMITTEE

Bunge North America, Inc.  
Attn: Christopher Cunningham, Plant Manager  
203 34<sup>th</sup> Street  
Cairo, Illinois 62914

Application No.: 22110001

I.D. No.: 003005AAI

Applicant's Designation:

Date Received: November 3, 2022

Subject: Grain Cleaning and Drying Units

Date Issued: December 21, 2022

Location: 203 34<sup>th</sup> Street, Cairo, Alexander County

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of grain cleaning and drying units, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s).

### 1. Introduction

- a. This permit addresses the following at this grain processing plant, which processes soybeans into vegetable oil and animal feeds:
  - i. Construction of one new grain cleaning operation, consisting of units that would be used to clean, i.e., separate foreign matter, such as sticks and stones from, grain. A new baghouse would be constructed to control emissions of particulates from this operation. The new grain cleaning units and baghouse would take the place of the existing grain cleaning units and baghouse, which have reached the end of their useful life and will be removed from the source.
  - ii. Construction of six new gas-fired grain dryers. The new grain dryers would take the place of the existing two grain dryers, which have reached the end of their useful life and will be removed from the source.
- b. While the new units addressed by Conditions 1(a)(i) and (ii) will have the capacity to process more grain than the existing grain cleaning and drying units, the new units would continue to be bottlenecked by downstream process units at this plant. In this regard, this permit includes enforceable limits on the operation of these new units so that there would not be an increase in

2125 S. First Street, Champaign, IL 61820 (217) 278-5800  
1101 Eastport Plaza Dr., Suite 100, Collinsville, IL 62234 (618) 346-5120  
9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000  
595 S. State Street, Elgin, IL 60123 (847) 608-3131

2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200  
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022  
4302 N. Main Street, Rockford, IL 61103 (815) 987-7760

the amount of grain that could be processed by or emissions of downstream process units. (See Condition 4-1.)

- c. For purposes of this permit:
- i. The units comprising the grain cleaning operation addressed by Condition 1(a) (i) are referred to as the "affected grain cleaning units."
  - ii. The new baghouse that would be used to control the affected grain cleaning units is referred to as the "affected baghouse."
  - iii. The new grain dryers addressed by Condition 1(a) (ii) are referred to as the "affected grain dryers."
  - iv. The affected grain cleaning units and affected grain dryers are collectively referred to as the "affected units."

## 2. Coordination With Other Permits

- a. Except as specifically provided, for the affected units, the Permittee shall comply with all applicable requirements for grain cleaning and drying units, including emissions standards and limits and related testing, recordkeeping and reporting requirements, as addressed by Section 4.2 of the Clean Air Act Permit Program (CAAPP) Permit issued for the source, Permit 96030140 (the "CAAPP Permit"), including the following:
- i. Requirements of the New Source Performance Standards (NSPS) for Grain Elevators, 40 CFR 60 Subpart DD.
  - ii. Emissions standards for visible and particulate matter emissions under 35 IAC Part 212, including 35 IAC 212.123(a) (opacity of emissions), 35 IAC 212.301 (fugitive particulate matter), and 35 IAC 212 Subpart S (Agriculture).
  - iii. For the affected grain dryers, emissions standards for carbon monoxide (CO) emissions, including 35 IAC 216.121.

## 3. Nonapplicability Provisions

- a. This permit is issued based on this project not being a major modification for purposes of Illinois' rules for Prevention of Significant Deterioration, 35 IAC Part 204. This is because this project will not result in a significant increase in emissions. (See Attachment 1.)
- b. This permit is issued based on the affected grain dryers not being subject to the particulate matter standard of the NSPS, 40 CFR 60.301(a) (1), i.e., 0 percent opacity from any column dryer with column plate perforation exceeding 2.4 mm (0.094 inch). This is because the affected grain dryers will have column plate perforation that will not exceed 2.4 mm (0.094 inch). (See Condition 4-1(e)).

- c. This permit is issued based on the affected units not being subject to the state emission standards for particulate matter emissions in 35 IAC 212.321(a). As generally provided by 35 IAC 212.461(a), 35 IAC 212.321 shall not apply to grain handling and drying operations.

#### 4-1. Operational Limits and Requirements

- a. The existing grain cleaning and drying units shall be permanently shut down before the affected units begin operation.
- b. The affected grain cleaning units shall not process more than 1,601,133 tons/year grain. Compliance with this annual limit and other annual limits set by this permit shall be determined monthly from a running total of 12 consecutive months of data.
- c. The maximum rated air flow rate of the affected baghouse shall not exceed 26,000 standard cubic feet per minute (scfm).
- d. i. Natural gas shall be the only fuel fired in the affected grain dryers.
- ii. Fuel usage of the affected grain dryers shall not exceed 53.1 million standard cubic feet (mmscf) per month (mmscf/month) and 318.5 million standard cubic feet (mmscf) per year (mmscf/year).
- e. The column plate perforation of each affected grain dryer shall not exceed 2.4 mm diameter (0.094 inch).

#### 4-2. Emissions

- a. Emissions of particulates from the affected grain cleaning units shall not exceed the following:

Pollutant	Emissions	
	gr/dscf*	tons/year
PM	0.002	1.95
PM <sub>10</sub>		1.95
PM <sub>2.5</sub>	0.001	0.98

\* Grains (gr) per dry standard cubic foot (dscf)

- b. i. Emissions from the affected grain dryers, including emissions from combustion, shall not exceed the following limits:

Pollutant	Emissions	
	pounds/hour	tons/year
PM	26.7	63.4
PM <sub>10</sub>	13.4	31.7
PM <sub>2.5</sub>	2.3	5.39
NOx*	6.7	15.9
CO	5.6	13.8
VOM**	0.2	0.98

- \* Nitrogen oxides
- \*\* Volatile organic material

- ii. This permit is issued based on negligible emissions of sulfur dioxide (SO<sub>2</sub>) from the affected grain dryers, i.e., emissions of no more than 0.44 tons/year.

5-1. Monitoring Requirements for the Affected Baghouse

- a. The Permittee shall install, operate, and maintain a bag leak detection system for the affected baghouse as specified in Conditions 5-1(b) and (c) and in accordance with the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.
- b. The bag leak detection system must meet the following specifications and requirements:
  - i. The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 4.6 milligrams per actual cubic meter (0.002 grains per actual cubic foot) or less.
  - ii. The bag leak detection system sensor must provide output of relative PM loadings. The Permittee shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).
  - iii. The bag leak detection system must be equipped with an alarm system that will alert operating personnel when the system detects an increase in relative particulate loading over the alarm set point and the alarm must be located such that it can be detected by operating personnel.
  - iv. In the initial adjustment of the bag leak detection system, the Permittee must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.
  - v. After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the operations, maintenance, and monitoring plan required by Condition 5-2. The Permittee must not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition.
  - vi. The Permittee must install the bag leak detection sensor downstream of the affected baghouse. If multiple bag leak detectors are required, detectors may share the system instrumentation and alarm.

- vii. Each triboelectric bag leak detection system must be installed, operated, adjusted, and maintained so that it follows USEPA's "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997).
- c. For the bag leak detection system, the Permittee must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. The Permittee must resolve the cause of the alarm within 3 hours of the alarm by taking necessary corrective action(s). Corrective actions may include, but are not limited to the following:
  - i. Inspecting the affected baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
  - ii. Sealing off defective bags or filter media;
  - iii. Replacing defective bags or filter media or otherwise repairing the control device;
  - iv. Sealing off a defective baghouse compartment;
  - v. Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
  - vi. Shutting down the process producing the PM emissions.

5-2. Operations, Maintenance and Monitoring Plan for the Affected Baghouse

- a. The operations, maintenance, and monitoring plan must include the following:
  - i. Process and control device parameters that the Permittee will monitor to determine compliance, along with established operating levels or ranges for the affected grain cleaning units operation and associated affected baghouse.
  - ii. A monitoring schedule.
  - iii. Procedures for properly operating and maintaining the affected baghouse used to meet the emission limits (0.002 and 0.001 gr/dscf) in Condition 4-1(b) of this permit.
  - iv. Procedures for keeping records to document compliance.
  - v. Corrective actions you will take if process or control device parameters vary from the levels established during performance testing. For bag leak detection system alarms, example corrective actions that may be included in the operations, maintenance, and monitoring plan include:
    - A. Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.

- B. Sealing off defective bags or filter media.
- C. Replacing defective bags or filter media, or otherwise repairing the control device.
- D. Sealing off a defective fabric filter compartment.
- E. Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.
- F. Shutting down the affected grain cleaning units.
- G. The Permittee shall notify the Illinois EPA's Compliance Section of any adjustment to the range, averaging period, alarm set points or alarm delay time. This notification shall be submitted to the Illinois EPA's Compliance Section within 30 days of any adjustment.

### 5-3. Inspection and Maintenance Requirements

- a. For the affected grain dryers, the Permittee shall conduct inspections of the burners of the affected grain dryers once per calendar year. As part of these inspections, the Permittee shall perform maintenance, including cleaning and/or replacement of components of the burners as necessary.

### 6. Testing Requirements

- a. For the affected grain cleaning units, unless USEPA waives such testing as provided for by 40 CFR 60.8(b), the Permittee shall have performance tests conducted to demonstrate compliance with the applicable requirements of the NSPS, including 40 CFR 60.302(b) and (c)(2), and submit a written report for those tests to the Illinois EPA. The timing of these tests shall be in accordance with 40 CFR 60.8(a).
  - i. These performance tests shall be conducted using the methods specified in 40 CFR 60.303(b) or (c).
  - ii. The Permittee shall notify the Illinois EPA prior to these tests in accordance with 40 CFR 60.8(d).
- b. In addition to the testing required by Condition 6(a), within 180 days of initial startup of the affected grain cleaning units, the Permittee shall have emission testing conducted for PM<sub>10</sub> and PM<sub>2.5</sub> emissions of the affected grain cleaning units by an independent testing service in accordance with USEPA Methods 201A and 202. USEPA Method 5 may be used if all PM is assumed to be PM<sub>10</sub>/PM<sub>2.5</sub>. This testing may be coordinated with the performance testing required by Condition 6(a).
- c. At least 60 days prior to the actual date of emission testing, a written test plan shall be submitted to the Illinois EPA for review. The Illinois EPA may at the discretion of the Compliance Section Manager (or designee) accept a written test plan less than 60 days prior to testing provided it does not interfere with

the Illinois EPA's ability to review and comment on the protocol and does not deviate from the applicable state or federal statutes. This plan shall describe the specific procedures for testing, including as a minimum:

- i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
  - ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be considered representative operating conditions and the means by which the operating parameters for the emission unit and any control equipment will be determined.
  - iii. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.
  - iv. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods.
  - v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.
  - vi. The format and content of the Source Test Report.
- d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of the measurements shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of measurement shall be submitted a minimum of five working days prior to the actual date of the measurement. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe the measurements.
- e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 60 days following the test. The Final Report shall include at a minimum:
- i. A summary of results.
  - ii. General information.
  - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
  - iv. Detailed description of test conditions, including:
    - A. Process information, i.e., mode(s) of operation and process rate; and



- B. Control equipment information, i.e., equipment condition and operating parameters during testing.
- v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

7. Recordkeeping Requirements

- a. For the affected units, the Permittee shall fulfill the recordkeeping requirements of the NSPS, including 40 CFR 60.7(b).
- b. The Permittee shall maintain records of the following items for the affected grain cleaning units in addition to other required records:
  - i. A file containing a copy of the manufacturer's specifications and recommended operating and maintenance procedures for the affected baghouse.
  - ii. Records for the amount of grain processed by the affected grain cleaning units (tons/month and tons/year).
  - iii. The following records related to particulate emissions:
    - A. The PM, PM<sub>10</sub> and PM<sub>2.5</sub> emission factor(s) and maximum hourly emissions rates used by the Permittee to determine emissions of the affected grain cleaning units with supporting documentation.
    - B. Records of all other data used or relied upon by the Permittee to determine the PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions of affected grain cleaning units.
    - C. PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions from the affected grain cleaning units based on appropriate emission factors and operating data (tons/month and tons/year), with supporting documentation and calculations.
- c. The Permittee shall keep the following information and records for the affected grain dryers:
  - i. A file containing the manufacturer, model number, serial number and the maximum design heat input capacity, if this information is not listed on a nameplate attached to the grain dryer.
  - ii. A file containing the determination of the maximum hourly emissions of PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub> and CO, VOM and SO<sub>2</sub> with supporting data and calculations.
  - iii. Records for natural gas usage (mmscf/month and mmscf/year), with supporting documentation and calculations.
  - iv. Records of actual emissions of PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, CO and VOM (tons/month and tons/year), with supporting data and calculations.

- v. Records for inspections of and maintenance performed on the burners of the affected grain dryers, which include:
  - A. The date and time of inspection.
  - B. Maintenance performed on the burners, if any.

8. Notification and Reporting Requirements

- a. For the affected units, the Permittee shall fulfill all applicable notification and reporting requirements of the NSPS, including 40 CFR 60.7(a) and (b).
- b. The Permittee shall notify the Illinois EPA within 30 days of the following:
  - i. The date that the affected grain cleaning units begin operation.
  - ii. The date that the affected grain dryers begin operation.
  - iii. The date(s) that the existing grain cleaning and drying units are removed from the source.

9. Authorization to Operate

- a. The Permittee may operate the affected units pursuant to this construction permit until the CAAPP Permit is revised or renewed to address these units. This condition supersedes Standard Condition 6.

If you have any questions on this permit, please contact Daniel Rowell at 217/558-4368.

William D. Marr  
Manager, Permit Section  
Bureau of Air

WDM:DBR:tan

## ATTACHMENT 1

## Emissions Increases for the Project (Tons/Year)

Unit(s)	Pollutant						
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	NOx	CO	VOM	SO <sub>2</sub>
Baseline Actual Emissions of Existing Units <sup>a</sup>							
Grain Cleaning	0.2	0.2	0.1	-	-	-	-
Grain Drying	53.5	26.7	4.6	11.8	9.9	0.6	0.07
Subtotal	53.7	26.9	4.7	11.8	9.9	0.6	0.07
Potential Emissions of New Units							
Grain Cleaning	1.95	1.95	0.98	-	-	-	-
Grain Drying	63.4	31.7	5.39	15.9	13.8	0.88	0.10
Subtotal	65.4	33.7	6.37	15.9	13.8	0.88	0.10
Overall Increase <sup>b</sup>	11.7	6.8	1.7	4.1	3.9	0.3	0.03
Significant Emission Rate	25	15	10	40	100	40	40
Significant?	No	No	No	No	No	No	No

## Table Notes:

- a. Represents the baseline actual emissions of the existing grain cleaning and drying units for the 24-month baseline period beginning February 2015 and ending January 2017. The existing grain cleaning and drying units will be shut down as part of this project.
- b. Totals may not match sums due to rounding.



STATE OF ILLINOIS  
 ENVIRONMENTAL PROTECTION AGENCY  
 DIVISION OF AIR POLLUTION CONTROL  
 P. O. BOX 19506  
 SPRINGFIELD, ILLINOIS 62794-9506

**STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS  
 ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.
2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act, and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The Permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:
  - a. to enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,
  - b. to have access to and copy any records required to be kept under the terms and conditions of this permit,
  - c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
  - d. to obtain and remove samples of any discharge or emission of pollutants, and
  - e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
  - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,
  - b. does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,
  - c. does not release the Permittee from compliance with the other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,
  - d. does not take into consideration or attest to the structural stability of any units or parts of the project, and

- e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
- 6.
- a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.
  - b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.
7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:
- a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or
  - b. upon finding that any standard or special conditions have been violated, or
  - c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

217/785-1705

## CONSTRUCTION PERMIT NSPS SOURCE

### PERMITTEE

Bunge North America, Inc.  
Attn: Christopher Cunningham, Plant Manager  
203 34<sup>th</sup> Street  
Cairo, Illinois 62914

Application No.: 22110001

I.D. No.: 003005AAI

Applicant's Designation:

Date Received: November 3, 2022

Subject: Grain Cleaning and Drying Units

Date Issued: December 21, 2022

Location: 203 34<sup>th</sup> Street, Cairo, Alexander County

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of grain cleaning and drying units, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s).

### 1. Introduction

- a. This permit addresses the following at this grain processing plant, which processes soybeans into vegetable oil and animal feeds:
  - i. Construction of one new grain cleaning operation, consisting of units that would be used to clean, i.e., separate foreign matter, such as sticks and stones from, grain. A new baghouse would be constructed to control emissions of particulates from this operation. The new grain cleaning units and baghouse would take the place of the existing grain cleaning units and baghouse, which have reached the end of their useful life and will be removed from the source.
  - ii. Construction of six new gas-fired grain dryers. The new grain dryers would take the place of the existing two grain dryers, which have reached the end of their useful life and will be removed from the source.
- b. While the new units addressed by Conditions 1(a)(i) and (ii) will have the capacity to process more grain than the existing grain cleaning and drying units, the new units would continue to be bottlenecked by downstream process units at this plant. In this regard, this permit includes enforceable limits on the operation of these new units so that there would not be an increase in

2125 S. First Street, Champaign, IL 61820 (217) 278-5800  
1101 Eastport Plaza Dr., Suite 100, Collinsville, IL 62234 (618) 346-5120  
9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000  
595 S. State Street, Elgin, IL 60123 (847) 608-3131

2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200  
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022  
4302 N. Main Street, Rockford, IL 61103 (815) 987-7760

the amount of grain that could be processed by or emissions of downstream process units. (See Condition 4-1.)

- c. For purposes of this permit:
- i. The units comprising the grain cleaning operation addressed by Condition 1(a)(i) are referred to as the "affected grain cleaning units."
  - ii. The new baghouse that would be used to control the affected grain cleaning units is referred to as the "affected baghouse."
  - iii. The new grain dryers addressed by Condition 1(a)(ii) are referred to as the "affected grain dryers."
  - iv. The affected grain cleaning units and affected grain dryers are collectively referred to as the "affected units."

## 2. Coordination With Other Permits

- a. Except as specifically provided, for the affected units, the Permittee shall comply with all applicable requirements for grain cleaning and drying units, including emissions standards and limits and related testing, recordkeeping and reporting requirements, as addressed by Section 4.2 of the Clean Air Act Permit Program (CAAPP) Permit issued for the source, Permit 96030140 (the "CAAPP Permit"), including the following:
- i. Requirements of the New Source Performance Standards (NSPS) for Grain Elevators, 40 CFR 60 Subpart DD.
  - ii. Emissions standards for visible and particulate matter emissions under 35 IAC Part 212, including 35 IAC 212.123(a) (opacity of emissions), 35 IAC 212.301 (fugitive particulate matter), and 35 IAC 212 Subpart S (Agriculture).
  - iii. For the affected grain dryers, emissions standards for carbon monoxide (CO) emissions, including 35 IAC 216.121.

## 3. Nonapplicability Provisions

- a. This permit is issued based on this project not being a major modification for purposes of Illinois' rules for Prevention of Significant Deterioration, 35 IAC Part 204. This is because this project will not result in a significant increase in emissions. (See Attachment 1.)
- b. This permit is issued based on the affected grain dryers not being subject to the particulate matter standard of the NSPS, 40 CFR 60.301(a)(1), i.e., 0 percent opacity from any column dryer with column plate perforation exceeding 2.4 mm (0.094 inch). This is because the affected grain dryers will have column plate perforation that will not exceed 2.4 mm (0.094 inch). (See Condition 4-1(e)).

- c. This permit is issued based on the affected units not being subject to the state emission standards for particulate matter emissions in 35 IAC 212.321(a). As generally provided by 35 IAC 212.461(a), 35 IAC 212.321 shall not apply to grain handling and drying operations.

#### 4-1. Operational Limits and Requirements

- a. The existing grain cleaning and drying units shall be permanently shut down before the affected units begin operation.
- b. The affected grain cleaning units shall not process more than 1,601,133 tons/year grain. Compliance with this annual limit and other annual limits set by this permit shall be determined monthly from a running total of 12 consecutive months of data.
- c. The maximum rated air flow rate of the affected baghouse shall not exceed 26,000 standard cubic feet per minute (scfm).
- d. i. Natural gas shall be the only fuel fired in the affected grain dryers.
- ii. Fuel usage of the affected grain dryers shall not exceed 53.1 million standard cubic feet (mmscf) per month (mmscf/month) and 318.5 million standard cubic feet (mmscf) per year (mmscf/year).
- e. The column plate perforation of each affected grain dryer shall not exceed 2.4 mm diameter (0.094 inch).

#### 4-2. Emissions

- a. Emissions of particulates from the affected grain cleaning units shall not exceed the following:

Pollutant	Emissions	
	gr/dscf*	tons/year
PM	0.002	1.95
PM <sub>10</sub>		1.95
PM <sub>2.5</sub>	0.001	0.98

\* Grains (gr) per dry standard cubic foot (dscf)

- b. i. Emissions from the affected grain dryers, including emissions from combustion, shall not exceed the following limits:

Pollutant	Emissions	
	pounds/hour	tons/year
PM	26.7	63.4
PM <sub>10</sub>	13.4	31.7
PM <sub>2.5</sub>	2.3	5.39
NOx*	6.7	15.9
CO	5.6	13.8
VOM**	0.2	0.98



- \* Nitrogen oxides
- \*\* Volatile organic material

- ii. This permit is issued based on negligible emissions of sulfur dioxide (SO<sub>2</sub>) from the affected grain dryers, i.e., emissions of no more than 0.44 tons/year.

5-1. Monitoring Requirements for the Affected Baghouse

- a. The Permittee shall install, operate, and maintain a bag leak detection system for the affected baghouse as specified in Conditions 5-1(b) and (c) and in accordance with the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.
- b. The bag leak detection system must meet the following specifications and requirements:
  - i. The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 4.6 milligrams per actual cubic meter (0.002 grains per actual cubic foot) or less.
  - ii. The bag leak detection system sensor must provide output of relative PM loadings. The Permittee shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).
  - iii. The bag leak detection system must be equipped with an alarm system that will alert operating personnel when the system detects an increase in relative particulate loading over the alarm set point and the alarm must be located such that it can be detected by operating personnel.
  - iv. In the initial adjustment of the bag leak detection system, the Permittee must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.
  - v. After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the operations, maintenance, and monitoring plan required by Condition 5-2. The Permittee must not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition.
  - vi. The Permittee must install the bag leak detection sensor downstream of the affected baghouse. If multiple bag leak detectors are required, detectors may share the system instrumentation and alarm.

- vii. Each triboelectric bag leak detection system must be installed, operated, adjusted, and maintained so that it follows USEPA's "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997).
- c. For the bag leak detection system, the Permittee must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. The Permittee must resolve the cause of the alarm within 3 hours of the alarm by taking necessary corrective action(s). Corrective actions may include, but are not limited to the following:
  - i. Inspecting the affected baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
  - ii. Sealing off defective bags or filter media;
  - iii. Replacing defective bags or filter media or otherwise repairing the control device;
  - iv. Sealing off a defective baghouse compartment;
  - v. Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
  - vi. Shutting down the process producing the PM emissions.

5-2. Operations, Maintenance and Monitoring Plan for the Affected Baghouse

- a. The operations, maintenance, and monitoring plan must include the following:
  - i. Process and control device parameters that the Permittee will monitor to determine compliance, along with established operating levels or ranges for the affected grain cleaning units operation and associated affected baghouse.
  - ii. A monitoring schedule.
  - iii. Procedures for properly operating and maintaining the affected baghouse used to meet the emission limits (0.002 and 0.001 gr/dscf) in Condition 4-1(b) of this permit.
  - iv. Procedures for keeping records to document compliance.
  - v. Corrective actions you will take if process or control device parameters vary from the levels established during performance testing. For bag leak detection system alarms, example corrective actions that may be included in the operations, maintenance, and monitoring plan include:
    - A. Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.

- B. Sealing off defective bags or filter media.
- C. Replacing defective bags or filter media, or otherwise repairing the control device.
- D. Sealing off a defective fabric filter compartment.
- E. Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.
- F. Shutting down the affected grain cleaning units.
- G. The Permittee shall notify the Illinois EPA's Compliance Section of any adjustment to the range, averaging period, alarm set points or alarm delay time. This notification shall be submitted to the Illinois EPA's Compliance Section within 30 days of any adjustment.

5-3. Inspection and Maintenance Requirements.

- a. For the affected grain dryers, the Permittee shall conduct inspections of the burners of the affected grain dryers once per calendar year. As part of these inspections, the Permittee shall perform maintenance, including cleaning and/or replacement of components of the burners as necessary.

6. Testing Requirements

- a. For the affected grain cleaning units, unless USEPA waives such testing as provided for by 40 CFR 60.8(b), the Permittee shall have performance tests conducted to demonstrate compliance with the applicable requirements of the NSPS, including 40 CFR 60.302(b) and (c)(2), and submit a written report for those tests to the Illinois EPA. The timing of these tests shall be in accordance with 40 CFR 60.8(a).
  - i. These performance tests shall be conducted using the methods specified in 40 CFR 60.303(b) or (c).
  - ii. The Permittee shall notify the Illinois EPA prior to these tests in accordance with 40 CFR 60.8(d).
- b. In addition to the testing required by Condition 6(a), within 180 days of initial startup of the affected grain cleaning units, the Permittee shall have emission testing conducted for PM<sub>10</sub> and PM<sub>2.5</sub> emissions of the affected grain cleaning units by an independent testing service in accordance with USEPA Methods 201A and 202. USEPA Method 5 may be used if all PM is assumed to be PM<sub>10</sub>/PM<sub>2.5</sub>. This testing may be coordinated with the performance testing required by Condition 6(a).
- c. At least 60 days prior to the actual date of emission testing, a written test plan shall be submitted to the Illinois EPA for review. The Illinois EPA may at the discretion of the Compliance Section Manager (or designee) accept a written test plan less than 60 days prior to testing provided it does not interfere with

the Illinois EPA's ability to review and comment on the protocol and does not deviate from the applicable state or federal statutes. This plan shall describe the specific procedures for testing, including as a minimum:

- i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
  - ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be considered representative operating conditions and the means by which the operating parameters for the emission unit and any control equipment will be determined.
  - iii. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.
  - iv. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods.
  - v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.
  - vi. The format and content of the Source Test Report.
- d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of the measurements shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of measurement shall be submitted a minimum of five working days prior to the actual date of the measurement. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe the measurements.
- e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 60 days following the test. The Final Report shall include at a minimum:
- i. A summary of results.
  - ii. General information.
  - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
  - iv. Detailed description of test conditions, including:
    - A. Process information, i.e., mode(s) of operation and process rate; and

- B. Control equipment information, i.e., equipment condition and operating parameters during testing.
- v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

7. Recordkeeping Requirements

- a. For the affected units, the Permittee shall fulfill the recordkeeping requirements of the NSPS, including 40 CFR 60.7(b).
- b. The Permittee shall maintain records of the following items for the affected grain cleaning units in addition to other required records:
  - i. A file containing a copy of the manufacturer's specifications and recommended operating and maintenance procedures for the affected baghouse.
  - ii. Records for the amount of grain processed by the affected grain cleaning units (tons/month and tons/year).
  - iii. The following records related to particulate emissions:
    - A. The PM, PM<sub>10</sub> and PM<sub>2.5</sub> emission factor(s) and maximum hourly emissions rates used by the Permittee to determine emissions of the affected grain cleaning units with supporting documentation.
    - B. Records of all other data used or relied upon by the Permittee to determine the PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions of affected grain cleaning units.
    - C. PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions from the affected grain cleaning units based on appropriate emission factors and operating data (tons/month and tons/year), with supporting documentation and calculations.
- c. The Permittee shall keep the following information and records for the affected grain dryers:
  - i. A file containing the manufacturer, model number, serial number and the maximum design heat input capacity, if this information is not listed on a nameplate attached to the grain dryer.
  - ii. A file containing the determination of the maximum hourly emissions of PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub> and CO, VOM and SO<sub>2</sub> with supporting data and calculations.
  - iii. Records for natural gas usage (mmscf/month and mmscf/year), with supporting documentation and calculations.
  - iv. Records of actual emissions of PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, CO and VOM (tons/month and tons/year), with supporting data and calculations.

- v. Records for inspections of and maintenance performed on the burners of the affected grain dryers, which include:
  - A. The date and time of inspection.
  - B. Maintenance performed on the burners, if any.

8. Notification and Reporting Requirements

- a. For the affected units, the Permittee shall fulfill all applicable notification and reporting requirements of the NSPS, including 40 CFR 60.7(a) and (b).
- b. The Permittee shall notify the Illinois EPA within 30 days of the following:
  - i. The date that the affected grain cleaning units begin operation.
  - ii. The date that the affected grain dryers begin operation.
  - iii. The date(s) that the existing grain cleaning and drying units are removed from the source.

9. Authorization to Operate

- a. The Permittee may operate the affected units pursuant to this construction permit until the CAAPP Permit is revised or renewed to address these units. This condition supersedes Standard Condition 6.

If you have any questions on this permit, please contact Daniel Rowell at 217/558-4368.

*William D. Marr JMS 12-21-2022*

William D. Marr  
Manager, Permit Section  
Bureau of Air

WDM:DBR:tan

*DBR  
12/22/2022*

## ATTACHMENT 1

Emissions Increases for the Project (Tons/Year)

Unit(s)	Pollutant						
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	NOx	CO	VOM	SO <sub>2</sub>
Baseline Actual Emissions of Existing Units <sup>a</sup>							
Grain Cleaning	0.2	0.2	0.1	-	-	-	-
Grain Drying	53.5	26.7	4.6	11.8	9.9	0.6	0.07
Subtotal	53.7	26.9	4.7	11.8	9.9	0.6	0.07
Potential Emissions of New Units							
Grain Cleaning	1.95	1.95	0.98	-	-	-	-
Grain Drying	63.4	31.7	5.39	15.9	13.8	0.88	0.10
Subtotal	65.4	33.7	6.37	15.9	13.8	0.88	0.10
Overall Increase <sup>b</sup>	11.7	6.8	1.7	4.1	3.9	0.3	0.03
Significant Emission Rate	25	15	10	40	100	40	40
Significant?	No	No	No	No	No	No	No

Table Notes:

- a. Represents the baseline actual emissions of the existing grain cleaning and drying units for the 24-month baseline period beginning February 2015 and ending January 2017. The existing grain cleaning and drying units will be shut down as part of this project.
- b. Totals may not match sums due to rounding.

STATE OF ILLINOIS  
 ENVIRONMENTAL PROTECTION AGENCY  
 DIVISION OF AIR POLLUTION CONTROL  
 P. O. BOX 19506  
 SPRINGFIELD, ILLINOIS 62794-9506



**STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS  
 ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.
2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act, and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The Permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:
  - a. to enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,
  - b. to have access to and copy any records required to be kept under the terms and conditions of this permit,
  - c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
  - d. to obtain and remove samples of any discharge or emission of pollutants, and
  - e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
  - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,
  - b. does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,
  - c. does not release the Permittee from compliance with the other applicable statues and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,
  - d. does not take into consideration or attest to the structural stability of any units or parts of the project, and



- e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
- 6.
- a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.
  - b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.
7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:
- a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or
  - b. upon finding that any standard or special conditions have been violated, or
  - c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.

**Rowell, Daniel**

---

**From:** Adelman, Amy M.  
**Sent:** Wednesday, December 21, 2022 2:32 PM  
**To:** James Burris; Marr, Bill; Schnepf, Jason; Rowell, Daniel  
**Cc:** Walton, Marlisha M.; Nation, Trent; Rothenberg, Marcus A.  
**Subject:** RE: Expedited Agreement Bunge North America, Inc 003005AAI 22110001  
**Attachments:** 003005AAI 22110001.pdf

Good afternoon,

Attached is the granted permit for Bunge North America, Inc 003005AAI 22110001.  
 One copy will also be mailed to you.

Thank you,

*Amy Adelman*, Office Coordinator

IL Environmental Protection Agency, Bureau of Air  
 1021 N Grand Ave E  
 Springfield, IL 62794  
 Email: [Amy.M.Adelman@illinois.gov](mailto:Amy.M.Adelman@illinois.gov)  
 Main: (217) 785- 1705 | Direct: (217) 558- 7374



**From:** Adelman, Amy M.  
**Sent:** Thursday, December 8, 2022 1:31 PM  
**To:** James Burris <James.Burris@bunge.com>; Marr, Bill <Bill.Marr@illinois.gov>; Schnepf, Jason <Jason.Schnepf@Illinois.gov>; Rowell, Daniel <Daniel.Rowell@illinois.gov>  
**Cc:** Walton, Marlisha M. <Marlisha.Walton@illinois.gov>; Nation, Trent <Trent.Nation@illinois.gov>; Rothenberg, Marcus A. <Marcus.A.Rothenberg@illinois.gov>  
**Subject:** RE: Expedited Agreement Bunge North America, Inc 003005AAI 22110001

Good afternoon,

The signed agreement and check was received. Attached is your executed agreement.

Thank you,

*Amy Adelman*, Office Coordinator

IL Environmental Protection Agency, Bureau of Air

1021 N Grand Ave E  
 Springfield, IL 62794  
 Email: [Amy.M.Adelman@illinois.gov](mailto:Amy.M.Adelman@illinois.gov)  
 Main: (217) 785- 1705 | Direct: (217) 558- 7374



**From:** James Burris <[James.Burris@bunge.com](mailto:James.Burris@bunge.com)>  
**Sent:** Sunday, December 4, 2022 3:47 PM  
**To:** Adelman, Amy M. <[Amy.M.Adelman@Illinois.gov](mailto:Amy.M.Adelman@Illinois.gov)>; Marr, Bill <[Bill.Marr@illinois.gov](mailto:Bill.Marr@illinois.gov)>; Schnepf, Jason <[Jason.Schnepf@Illinois.gov](mailto:Jason.Schnepf@Illinois.gov)>; Rowell, Daniel <[Daniel.Rowell@illinois.gov](mailto:Daniel.Rowell@illinois.gov)>  
**Cc:** Walton, Marlisha M. <[Marlisha.Walton@Illinois.gov](mailto:Marlisha.Walton@Illinois.gov)>; Nation, Trent <[Trent.Nation@Illinois.gov](mailto:Trent.Nation@Illinois.gov)>; Rothenberg, Marcus A. <[Marcus.A.Rothenberg@Illinois.gov](mailto:Marcus.A.Rothenberg@Illinois.gov)>  
**Subject:** [External] RE: Expedited Agreement Bunge North America, Inc 003005AAI 22110001

Thank you Amy,

I will forward the contract to the plant manager for his signature and instruct him to return the signed contract with a check for \$10,000 no later than December 9.

Jim Burris, PE

Phone: 314-292-2937

Mobile: 314-308-3904

1391 Timberlake Manor Parkway  
 Chesterfield, MO 63017

**BUNGE**

**From:** Adelman, Amy M. <[Amy.M.Adelman@Illinois.gov](mailto:Amy.M.Adelman@Illinois.gov)>  
**Sent:** Friday, December 2, 2022 2:12 PM  
**To:** James Burris <[James.Burris@bunge.com](mailto:James.Burris@bunge.com)>; Marr, Bill <[Bill.Marr@illinois.gov](mailto:Bill.Marr@illinois.gov)>; Schnepf, Jason <[Jason.Schnepf@Illinois.gov](mailto:Jason.Schnepf@Illinois.gov)>; Rowell, Daniel <[Daniel.Rowell@illinois.gov](mailto:Daniel.Rowell@illinois.gov)>  
**Cc:** Walton, Marlisha M. <[Marlisha.Walton@Illinois.gov](mailto:Marlisha.Walton@Illinois.gov)>; Nation, Trent <[Trent.Nation@Illinois.gov](mailto:Trent.Nation@Illinois.gov)>; Rothenberg, Marcus A. <[Marcus.A.Rothenberg@Illinois.gov](mailto:Marcus.A.Rothenberg@Illinois.gov)>  
**Subject:** RE: Expedited Agreement Bunge North America, Inc 003005AAI 22110001  
**Importance:** High

**CAUTION:** This email originated from outside of Bunge. Do not click links or open attachments unless you recognize the sender !

Good afternoon,

Apologies— Correction, on the same day the check for the expedited fee of \$40,000 was received for 003005AAI another check for \$500 was received for a different site.

We must receive the standard fee (\$10,000) and the signed agreement no later than 12/09/22 in order to meet the deadline.

Thank you,

*Amy Adelman*, Office Coordinator

IL Environmental Protection Agency, Bureau of Air  
1021 N Grand Ave E  
Springfield, IL 62794  
Email: [Amy.M.Adelman@illinois.gov](mailto:Amy.M.Adelman@illinois.gov)  
Main: (217) 785- 1705 | Direct: (217) 558- 7374



**From:** Adelman, Amy M.

**Sent:** Friday, December 2, 2022 1:08 PM

**To:** [James.Burris@bunge.com](mailto:James.Burris@bunge.com); Marr, Bill <[Bill.Marr@illinois.gov](mailto:Bill.Marr@illinois.gov)>; Schnepf, Jason <[Jason.Schnepf@illinois.gov](mailto:Jason.Schnepf@illinois.gov)>; Rowell, Daniel <[Daniel.Rowell@illinois.gov](mailto:Daniel.Rowell@illinois.gov)>

**Cc:** Walton, Marlisha M. <[Marlisha.Walton@illinois.gov](mailto:Marlisha.Walton@illinois.gov)>; Nation, Trent <[Trent.Nation@illinois.gov](mailto:Trent.Nation@illinois.gov)>; Rothenberg, Marcus A. <[Marcus.A.Rothenberg@illinois.gov](mailto:Marcus.A.Rothenberg@illinois.gov)>

**Subject:** Expedited Agreement Bunge North America, Inc 003005AAI 22110001

Good afternoon,

Attached is the expedited permit agreement between Bunge North America Inc and the Agency with an agreed issuance date of 12/22/22. Please have the appropriate person sign the last page and return the signed agreement to the agency address shown in Section 13. We received your expedited fee (\$40,000) on 11/03/2022 and a check for (\$500) on 11/03/22. We must receive the standard fee (\$9,500) and the signed agreement no later than 12/09/22 in order to meet the deadline. Prior to returning the documents back to the Agency, scan and email a copy of the signed agreement and check to me for our records. Also, please send a reply to ensure receipt of this email.

Thank you,

*Amy Adelman*, Office Coordinator

IL Environmental Protection Agency, Bureau of Air  
1021 N Grand Ave E  
Springfield, IL 62794  
Email: [Amy.M.Adelman@illinois.gov](mailto:Amy.M.Adelman@illinois.gov)  
Main: (217) 785- 1705 | Direct: (217) 558- 7374



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This message is intended only for the named recipient and may contain confidential, proprietary or legally privileged information.

No confidentiality or privilege is waived or lost by any misdirected transmission.

If you received this message in error, please notify us immediately by telephone at +1 314 292-2000 and immediately delete this message from your system.

If you are not the intended recipient, you must not use, disclose, distribute or copy any part of this message.



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

217/785-1705

## CONSTRUCTION PERMIT NSPS SOURCE

### PERMITTEE

Bunge North America, Inc.  
Attn: Christopher Cunningham, Plant Manager  
203 34<sup>th</sup> Street  
Cairo, Illinois 62914

Application No.: 22110001

I.D. No.: 003005AAI

Applicant's Designation:

Date Received: November 3, 2022

Subject: Grain Cleaning and Drying Units

Date Issued: December 21, 2022

Location: 203 34<sup>th</sup> Street, Cairo, Alexander County

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of grain cleaning and drying units, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s).

### 1. Introduction

- a. This permit addresses the following at this grain processing plant, which processes soybeans into vegetable oil and animal feeds:
  - i. Construction of one new grain cleaning operation, consisting of units that would be used to clean, i.e., separate foreign matter, such as sticks and stones from, grain. A new baghouse would be constructed to control emissions of particulates from this operation. The new grain cleaning units and baghouse would take the place of the existing grain cleaning units and baghouse, which have reached the end of their useful life and will be removed from the source.
  - ii. Construction of six new gas-fired grain dryers. The new grain dryers would take the place of the existing two grain dryers, which have reached the end of their useful life and will be removed from the source.
- b. While the new units addressed by Conditions 1(a)(i) and (ii) will have the capacity to process more grain than the existing grain cleaning and drying units, the new units would continue to be bottlenecked by downstream process units at this plant. In this regard, this permit includes enforceable limits on the operation of these new units so that there would not be an increase in

2125 S. First Street, Champaign, IL 61820 (217) 278-5800  
1101 Eastport Plaza Dr., Suite 100, Collinsville, IL 62234 (618) 346-5120  
9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000  
595 S. State Street, Elgin, IL 60123 (847) 608-3131

2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200  
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022  
4302 N. Main Street, Rockford, IL 61103 (815) 987-7760

PLEASE PRINT ON RECYCLED PAPER

the amount of grain that could be processed by or emissions of downstream process units. (See Condition 4-1.)

c. For purposes of this permit:

- i. The units comprising the grain cleaning operation addressed by Condition 1(a)(i) are referred to as the "affected grain cleaning units."
- ii. The new baghouse that would be used to control the affected grain cleaning units is referred to as the "affected baghouse."
- iii. The new grain dryers addressed by Condition 1(a)(ii) are referred to as the "affected grain dryers."
- iv. The affected grain cleaning units and affected grain dryers are collectively referred to as the "affected units."

2. Coordination With Other Permits

- a. Except as specifically provided, for the affected units, the Permittee shall comply with all applicable requirements for grain cleaning and drying units, including emissions standards and limits and related testing, recordkeeping and reporting requirements, as addressed by Section 4.2 of the Clean Air Act Permit Program (CAAPP) Permit issued for the source, Permit 96030140 (the "CAAPP Permit"), including the following:
  - i. Requirements of the New Source Performance Standards (NSPS) for Grain Elevators, 40 CFR 60 Subpart DD.
  - ii. Emissions standards for visible and particulate matter emissions under 35 IAC Part 212, including 35 IAC 212.123(a) (opacity of emissions), 35 IAC 212.301 (fugitive particulate matter), and 35 IAC 212 Subpart S (Agriculture).
  - iii. For the affected grain dryers, emissions standards for carbon monoxide (CO) emissions, including 35 IAC 216.121.

3. Nonapplicability Provisions

- a. This permit is issued based on this project not being a major modification for purposes of Illinois' rules for Prevention of Significant Deterioration, 35 IAC Part 204. This is because this project will not result in a significant increase in emissions. (See Attachment 1.)
- b. This permit is issued based on the affected grain dryers not being subject to the particulate matter standard of the NSPS, 40 CFR 60.301(a)(1), i.e., 0 percent opacity from any column dryer with column plate perforation exceeding 2.4 mm (0.094 inch). This is because the affected grain dryers will have column plate perforation that will not exceed 2.4 mm (0.094 inch). (See Condition 4-1(e)).

- c. This permit is issued based on the affected units not being subject to the state emission standards for particulate matter emissions in 35 IAC 212.321(a). As generally provided by 35 IAC 212.461(a), 35 IAC 212.321 shall not apply to grain handling and drying operations.

#### 4-1. Operational Limits and Requirements

- a. The existing grain cleaning and drying units shall be permanently shut down before the affected units begin operation.
- b. The affected grain cleaning units shall not process more than 1,601,133 tons/year grain. Compliance with this annual limit and other annual limits set by this permit shall be determined monthly from a running total of 12 consecutive months of data.
- c. The maximum rated air flow rate of the affected baghouse shall not exceed 26,000 standard cubic feet per minute (scfm).
- d. i. Natural gas shall be the only fuel fired in the affected grain dryers.
- ii. Fuel usage of the affected grain dryers shall not exceed 53.1 million standard cubic feet (mmscf) per month (mmscf/month) and 318.5 million standard cubic feet (mmscf) per year (mmscf/year).
- e. The column plate perforation of each affected grain dryer shall not exceed 2.4 mm diameter (0.094 inch).

#### 4-2. Emissions

- a. Emissions of particulates from the affected grain cleaning units shall not exceed the following:

Pollutant	Emissions	
	gr/dscf*	tons/year
PM	0.002	1.95
PM <sub>10</sub>		1.95
PM <sub>2.5</sub>	0.001	0.98

\* Grains (gr) per dry standard cubic foot (dscf)

- b. i. Emissions from the affected grain dryers, including emissions from combustion, shall not exceed the following limits:

Pollutant	Emissions	
	pounds/hour	tons/year
PM	26.7	63.4
PM <sub>10</sub>	13.4	31.7
PM <sub>2.5</sub>	2.3	5.39
NOx*	6.7	15.9
CO	5.6	13.8
VOM**	0.2	0.98



- \* Nitrogen oxides
- \*\* Volatile organic material

- ii. This permit is issued based on negligible emissions of sulfur dioxide (SO<sub>2</sub>) from the affected grain dryers, i.e., emissions of no more than 0.44 tons/year.

5-1. Monitoring Requirements for the Affected Baghouse

- a. The Permittee shall install, operate, and maintain a bag leak detection system for the affected baghouse as specified in Conditions 5-1(b) and (c) and in accordance with the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.
- b. The bag leak detection system must meet the following specifications and requirements:
  - i. The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 4.6 milligrams per actual cubic meter (0.002 grains per actual cubic foot) or less.
  - ii. The bag leak detection system sensor must provide output of relative PM loadings. The Permittee shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).
  - iii. The bag leak detection system must be equipped with an alarm system that will alert operating personnel when the system detects an increase in relative particulate loading over the alarm set point and the alarm must be located such that it can be detected by operating personnel.
  - iv. In the initial adjustment of the bag leak detection system, the Permittee must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.
  - v. After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the operations, maintenance, and monitoring plan required by Condition 5-2. The Permittee must not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition.
  - vi. The Permittee must install the bag leak detection sensor downstream of the affected baghouse. If multiple bag leak detectors are required, detectors may share the system instrumentation and alarm.

- vii. Each triboelectric bag leak detection system must be installed, operated, adjusted, and maintained so that it follows USEPA's "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997).
- c. For the bag leak detection system, the Permittee must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. The Permittee must resolve the cause of the alarm within 3 hours of the alarm by taking necessary corrective action(s). Corrective actions may include, but are not limited to the following:
  - i. Inspecting the affected baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
  - ii. Sealing off defective bags or filter media;
  - iii. Replacing defective bags or filter media or otherwise repairing the control device;
  - iv. Sealing off a defective baghouse compartment;
  - v. Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
  - vi. Shutting down the process producing the PM emissions.

5-2. Operations, Maintenance and Monitoring Plan for the Affected Baghouse

- a. The operations, maintenance, and monitoring plan must include the following:
  - i. Process and control device parameters that the Permittee will monitor to determine compliance, along with established operating levels or ranges for the affected grain cleaning units operation and associated affected baghouse.
  - ii. A monitoring schedule.
  - iii. Procedures for properly operating and maintaining the affected baghouse used to meet the emission limits (0.002 and 0.001 gr/dscf) in Condition 4-1(b) of this permit.
  - iv. Procedures for keeping records to document compliance.
  - v. Corrective actions you will take if process or control device parameters vary from the levels established during performance testing. For bag leak detection system alarms, example corrective actions that may be included in the operations, maintenance, and monitoring plan include:
    - A. Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.

- B. Sealing off defective bags or filter media.
- C. Replacing defective bags or filter media, or otherwise repairing the control device.
- D. Sealing off a defective fabric filter compartment.
- E. Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.
- F. Shutting down the affected grain cleaning units.
- G. The Permittee shall notify the Illinois EPA's Compliance Section of any adjustment to the range, averaging period, alarm set points or alarm delay time. This notification shall be submitted to the Illinois EPA's Compliance Section within 30 days of any adjustment.

5-3. Inspection and Maintenance Requirements.

- a. For the affected grain dryers, the Permittee shall conduct inspections of the burners of the affected grain dryers once per calendar year. As part of these inspections, the Permittee shall perform maintenance, including cleaning and/or replacement of components of the burners as necessary.

6. Testing Requirements

- a. For the affected grain cleaning units, unless USEPA waives such testing as provided for by 40 CFR 60.8(b), the Permittee shall have performance tests conducted to demonstrate compliance with the applicable requirements of the NSPS, including 40 CFR 60.302(b) and (c)(2), and submit a written report for those tests to the Illinois EPA. The timing of these tests shall be in accordance with 40 CFR 60.8(a).
  - i. These performance tests shall be conducted using the methods specified in 40 CFR 60.303(b) or (c).
  - ii. The Permittee shall notify the Illinois EPA prior to these tests in accordance with 40 CFR 60.8(d).
- b. In addition to the testing required by Condition 6(a), within 180 days of initial startup of the affected grain cleaning units, the Permittee shall have emission testing conducted for  $PM_{10}$  and  $PM_{2.5}$  emissions of the affected grain cleaning units by an independent testing service in accordance with USEPA Methods 201A and 202. USEPA Method 5 may be used if all PM is assumed to be  $PM_{10}/PM_{2.5}$ . This testing may be coordinated with the performance testing required by Condition 6(a).
- c. At least 60 days prior to the actual date of emission testing, a written test plan shall be submitted to the Illinois EPA for review. The Illinois EPA may at the discretion of the Compliance Section Manager (or designee) accept a written test plan less than 60 days prior to testing provided it does not interfere with

the Illinois EPA's ability to review and comment on the protocol and does not deviate from the applicable state or federal statutes. This plan shall describe the specific procedures for testing, including as a minimum:

- i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
  - ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be considered representative operating conditions and the means by which the operating parameters for the emission unit and any control equipment will be determined.
  - iii. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.
  - iv. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods.
  - v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.
  - vi. The format and content of the Source Test Report.
- d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of the measurements shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of measurement shall be submitted a minimum of five working days prior to the actual date of the measurement. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe the measurements.
- e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 60 days following the test. The Final Report shall include at a minimum:
- i. A summary of results.
  - ii. General information.
  - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
  - iv. Detailed description of test conditions, including:
    - A. Process information, i.e., mode(s) of operation and process rate; and

- B. Control equipment information, i.e., equipment condition and operating parameters during testing.
- v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

7. Recordkeeping Requirements

- a. For the affected units, the Permittee shall fulfill the recordkeeping requirements of the NSPS, including 40 CFR 60.7(b).
- b. The Permittee shall maintain records of the following items for the affected grain cleaning units in addition to other required records:
  - i. A file containing a copy of the manufacturer's specifications and recommended operating and maintenance procedures for the affected baghouse.
  - ii. Records for the amount of grain processed by the affected grain cleaning units (tons/month and tons/year).
  - iii. The following records related to particulate emissions:
    - A. The PM, PM<sub>10</sub> and PM<sub>2.5</sub> emission factor(s) and maximum hourly emissions rates used by the Permittee to determine emissions of the affected grain cleaning units with supporting documentation.
    - B. Records of all other data used or relied upon by the Permittee to determine the PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions of affected grain cleaning units.
    - C. PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions from the affected grain cleaning units based on appropriate emission factors and operating data (tons/month and tons/year), with supporting documentation and calculations.
- c. The Permittee shall keep the following information and records for the affected grain dryers:
  - i. A file containing the manufacturer, model number, serial number and the maximum design heat input capacity, if this information is not listed on a nameplate attached to the grain dryer.
  - ii. A file containing the determination of the maximum hourly emissions of PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub> and CO, VOM and SO<sub>2</sub> with supporting data and calculations.
  - iii. Records for natural gas usage (mmscf/month and mmscf/year), with supporting documentation and calculations.
  - iv. Records of actual emissions of PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, CO and VOM (tons/month and tons/year), with supporting data and calculations.

- v. Records for inspections of and maintenance performed on the burners of the affected grain dryers, which include:
  - A. The date and time of inspection.
  - B. Maintenance performed on the burners, if any.

8. Notification and Reporting Requirements

- a. For the affected units, the Permittee shall fulfill all applicable notification and reporting requirements of the NSPS, including 40 CFR 60.7(a) and (b).
- b. The Permittee shall notify the Illinois EPA within 30 days of the following:
  - i. The date that the affected grain cleaning units begin operation.
  - ii. The date that the affected grain dryers begin operation.
  - iii. The date(s) that the existing grain cleaning and drying units are removed from the source.

9. Authorization to Operate

- a. The Permittee may operate the affected units pursuant to this construction permit until the CAAPP Permit is revised or renewed to address these units. This condition supersedes Standard Condition 6.

If you have any questions on this permit, please contact Daniel Rowell at 217/558-4368.

*William D. Marr JMS 12-21-2022*

William D. Marr  
Manager, Permit Section  
Bureau of Air

WDM:DBR:tan

*DBR  
12/21/2022*

## ATTACHMENT 1

Emissions Increases for the Project (Tons/Year)

Unit(s)	Pollutant						
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	NOx	CO	VOM	SO <sub>2</sub>
<b>Baseline Actual Emissions of Existing Units<sup>a</sup></b>							
Grain Cleaning	0.2	0.2	0.1	-	-	-	-
Grain Drying	53.5	26.7	4.6	11.8	9.9	0.6	0.07
Subtotal	53.7	26.9	4.7	11.8	9.9	0.6	0.07
<b>Potential Emissions of New Units</b>							
Grain Cleaning	1.95	1.95	0.98	-	-	-	-
Grain Drying	63.4	31.7	5.39	15.9	13.8	0.88	0.10
Subtotal	65.4	33.7	6.37	15.9	13.8	0.88	0.10
Overall Increase <sup>b</sup>	11.7	6.8	1.7	4.1	3.9	0.3	0.03
Significant Emission Rate	25	15	10	40	100	40	40
Significant?	No	No	No	No	No	No	No

Table Notes:

- a. Represents the baseline actual emissions of the existing grain cleaning and drying units for the 24-month baseline period beginning February 2015 and ending January 2017. The existing grain cleaning and drying units will be shut down as part of this project.
- b. Totals may not match sums due to rounding.



STATE OF ILLINOIS  
 ENVIRONMENTAL PROTECTION AGENCY  
 DIVISION OF AIR POLLUTION CONTROL  
 P. O. BOX 19506  
 SPRINGFIELD, ILLINOIS 62794-9506

**STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS  
 ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.
2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act, and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The Permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:
  - a. to enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,
  - b. to have access to and copy any records required to be kept under the terms and conditions of this permit,
  - c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
  - d. to obtain and remove samples of any discharge or emission of pollutants, and
  - e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
  - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,
  - b. does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,
  - c. does not release the Permittee from compliance with the other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,
  - d. does not take into consideration or attest to the structural stability of any units or parts of the project, and



- e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
- 6.
- a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.
  - b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.
7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:
- a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or
  - b. upon finding that any standard or special conditions have been violated, or
  - c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.

CALCULATION SHEET

1 of 2

**APPLICANT:** Bunge North America, Inc.  
**ANALYST:** Daniel Rowell  
**CURRENT DATE:** December 21, 2022  
**SUBJECT:** Grain Cleaning and Drying Units

**I.D.:** 003 005 AAI  
**P.N.:** 22 11 0001  
**DATE RECEIVED:** November 3, 2022

**Project Description**

Bunge has requested a construction permit for installation of new units that would be used to clean and dry grain at its plant which processes grain (i.e., soybeans) into vegetable oil and animal feeds. This equipment would take the place of the existing grain cleaning and drying units, which will be shut down as part of this project. A new baghouse will control emissions of the grain cleaning units.

Bunge's application, as received November 3, 2022, addressed applicability of PSD by comparing the potential emissions of the existing units to the potential emissions of the new units. This approach is not consistent with relevant PSD guidance. Other deficiencies in the application were identified. Accordingly, a document listing comments, questions and deficiencies of the application was provided to Bunge by e-mail November 10, 2022. Among other things, it was requested that Bunge provide a new emissions analysis that compared the baseline actual emissions of the existing units against the potential emissions of the new units.

Bunge responded to the November 10, 2022 email on December 6, 2022 and provided the requested information.

**Emission Standards**

As the CAAPP Permit issued to Bunge, Permit 96030140, addresses applicable regulations for the grain cleaning and drying units, the construction permit references the CAAPP Permit. The grain cleaning and drying units are generally subject to the NSPS for Grain Elevators, 40 CFR 60 Subpart DD; emissions standards under 35 IAC Part 212, including 35 IAC 212.123(a), 212.301, and 35 IAC 212 Subpart S. The grain dryers are also subject to the emission standard for carbon monoxide at 35 IAC 216.121.

Bunge voluntarily accepted a limit for the column plate perforation of the grain dryers of no more than 2.4 mm diameter (0.094 inch) so that the grain dryers will not be subject to the NSPS for Grain Elevators, 40 CFR 60 Subpart DD. As generally provided by 40 CFR 60.301(a)(1), the opacity standard of this NSPS is applicable to column grain dryers with a column plate perforation size greater than 2.4 mm diameter (0.094 inch). Accordingly, the permit includes a nonapplicability statement addressing this.

**Emissions**

Bunge provided emissions for this project that evaluated the baseline actual emissions of the existing grain cleaning and drying units against the potential emissions of the new units. This evaluation demonstrated that this project will not be a major modification for purposes of Illinois' rules for PSD, 35 IAC Part 204.

**Draft Permit**

A draft permit was provided to James Burris, the contact for this application. Comments were exchanged by email and phone and addressed in the final permit.

CALCULATION SHEET

2 of 2

Environmental Justice

The source is located near an area of concern for purposes of Environmental Justice (EJ), as verified using current information available on IEPA's EJStart tool. EJ outreach was conducted. No interest was expressed on the project.

For purposes of accomplishing the Permit Section's objectives with respect to Environmental Justice, this permitting action considers the following so that there will be a not be an increase in emissions of the source:

- The existing grain cleaning and drying units are bottlenecked by the processing capacities of downstream units.
- While the new grain cleaning and drying units will have the ability to process more grain, they will continue to be bottlenecked by downstream units. Bunge is accepting enforceable limits on operational parameters (e.g., grain input rate, natural gas usage) of the new grain cleaning and drying units to ensure there is no increase in the overall amount of grain that can be processed.
- The new grain cleaning units will be controlled by a new, larger baghouse that is expected to have improved efficiency for control of particulates. The new baghouse will be equipped with a bag leak detection system.

Requisite approvals with respect to EJ were obtained prior to issuance of the permit.

Other Notes

The source requested expedited review of the application. The permit will be issued by the target date for final action agreed to by the Agency in accordance with the Expedited Agreement. A copy of the signed Expedited Agreement is included in the permit file.

Recommendation

I recommend **GRANTING** this construction permit.

# **Compliance Monitoring and Control of Fabric Filters**

Particulate Monitoring and Control Solutions

**FilterSense**

# Introduction

---

## Focus & Expertise

Developer & Manufacturer of Industrial Instrumentation & Control Solutions

Focused on particulate monitoring and controls for fabric filters

## Core Competencies

- Electromechanical design for ultra low level signal measurement, signal diagnostics and intelligent control electronics for harsh and hazardous environments
- Design and manufacturing to international quality (ISO 9001 certified), functional (NAMUR) and EPA standards
- Application knowledge and on-site support for process control and regulatory needs in virtually all industries

# Introduction

---

## FilterSense is a Market Leader

### Product Innovation

- Invented induction sensing and insulated probes (DynaCHARGE™)
- Pioneered real-time baghouse diagnostics (B-PAC™ Controls)

### Application Value

#### Prevention

- Uniquely focus product technology on proactive/preventive monitoring vs reactive and “meet the reg.” monitoring

#### Performance Improvement

- Develop solutions to not just detect or control but to holistically improve plant operations

## Fabric Filters (FF) – Industry's Primary PM Control

- The primary industrial process PM control technology
  - Low emissions (up to 99.9% efficient)
  - Fine particle capture  
(PM 10 and less including PM 2.5)
  - Very wide range of CFM and processes
  - Applied to virtually all industries
  - Many advantages over ESP

## Particulate Monitoring - Today

- Particulate monitors widely applied for process control
  - Process insight, equipment protection, product loss etc.
- Extensively required by EPA agencies
  - Many US regulations ex. NESHAP and MACT
  - Many local/state ex. Southern California Rule 1155
  - (Rule 1155 requires monitoring all FF over 7500 CFM)
- From large multi-compartment baghouses to bin vents and nuisance dust collectors
- Method 22 Visual inspection
  - No visible emission regulations exist for many smaller filters
  - (Industry would prefer to monitor for preventive maintenance)



## Particulate Monitoring - Main Technologies for FF

- Charge (Induction and triboelectric)
- Scattered light (forward and back)

The above provide the best price/performance/benefit

### Opacity once the main technology

- Now far less applied as emissions much less “visible” and performance of charge/probe based and other optical superior
- Beta and TEOM Light scatter hybrid
  - have some market in large combustion
  - Costly and complex

## Particulate Monitoring – No Ideal Solution

- A direct, real-time highly accurate mass output would be ideal
- Decades of effort... yet no real-time technology at any price can directly output mass within a few % or less
- Price/performance ratio of periodic instruments such as Beta and TEOM/Scatter hybrid is high, limiting market acceptance to primarily the largest wet stacks

While these technologies output directly in mass, accuracy is still only in the +/-10-20% + range

## Particulate Monitoring - Correlated Mass Output

- Correlation to gravimetric test is the best method for mass output
- Not a true “calibration” so referred to as a “correlation”
- As emission levels decrease gravimetric sampling accuracy decreases
  - Further reduces correlation accuracy
  - Led to pushback for compliance use
- Correlated mass output still limited in US  
(limited use of US-EPA PS 11 and changes to Boiler/Cement to PM CPMS)
- Correlated mass output widely applied to large sources in Europe/Asia, where there is more acceptance of limited accuracy

## Particulate Monitoring - Proportional/Linear Output

- Proportional/relative output is an output that is reasonably linear to mass but the slope is unknown and may vary with each installation

Ex: When the reading doubles the mass has doubled

When the reading triples the mass has tripled etc.

- Applied correctly is effective and simple
- Gaining more momentum in large stacks (Ref PM CPMS)
- Dominant approach in all industries and sizes of FF
- Basis for leak analysis/leak detection

## Proportional Output for Leak Analysis/Detection

- Proportional monitoring applied for Leak Analysis/Detection tied to good instrument performance standards is highly effective
  - Drives tight/proactive maintenance of the filter preventing excess and out of compliance emission levels
  - Due to high efficiency of FF and headroom below limit, plants can readily comply
  - Leak Analysis/Detection can be more effective at keeping emissions low vs a PM CEMS or PM CPMS regulation
    - PM CPMS/PM CEMS regulations don't require replacing failed filters

## FilterSense Approach and Market Focus

- Prevent Emissions and Improve Operations

Solutions that simultaneously help prevent emissions and improve plant operations

- Accomplished by providing:

- Reliable low level particulate monitoring
- Integrated particulate sensing and intelligent FF control
- Advanced diagnostics
  - signals, process activity, process equipment condition



# **Particulate Monitoring Technologies**

**FilterSense**

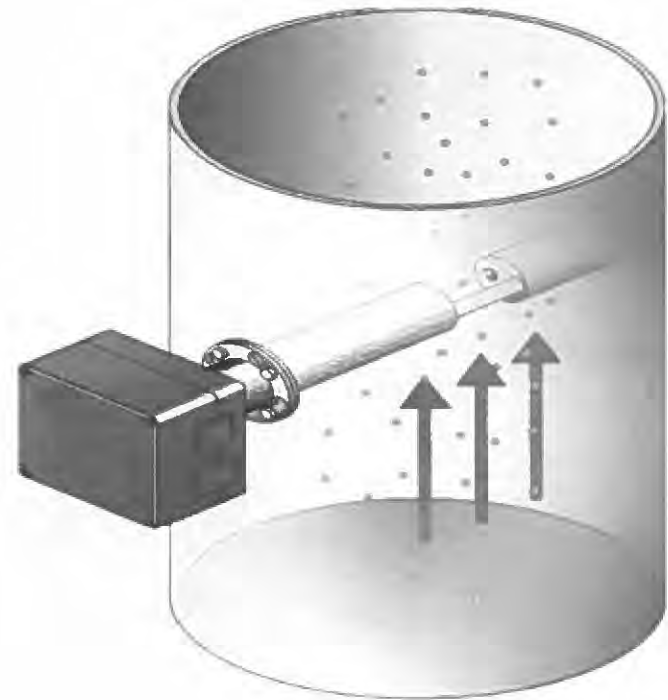
# Particulate Monitoring Technologies

## Scattered Light

Light source transmits a beam into the duct/stack. The intensity of forward deflected light (forward scatter products) or backward reflected (back scatter products) is measurement by a receiver. The output is proportional to mass concentration.

### Typical Application/Industries:

- Primarily large combustion stacks such as power, cement kilns and waste incineration with correlated mass monitoring or CPMS requirement
- Large fabric filters, ESPs, Wet Scrubbers (requires heated sample)





# Particulate Monitoring Technologies

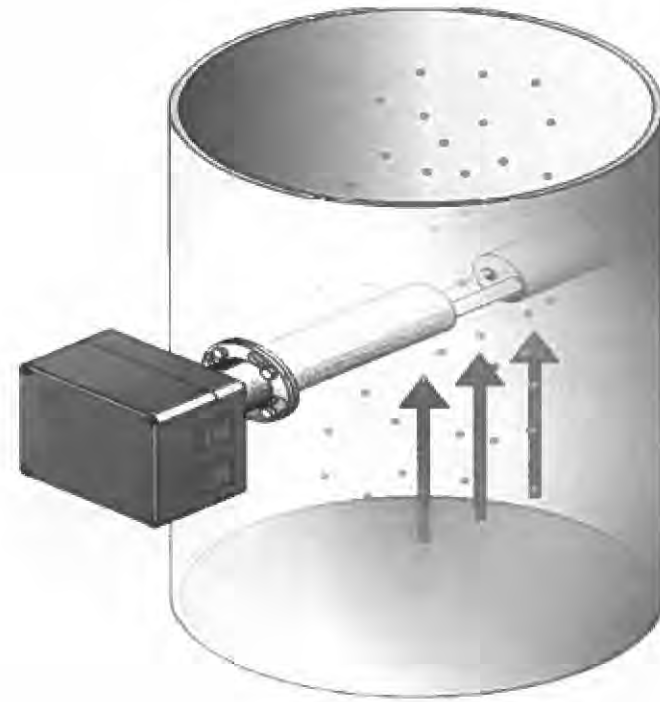
## Scattered Light

### Pros:

- **Good to Best** correlation accuracy to mass ( $\text{mg}/\text{m}^3$ ) (after gravimetric sample)
- Low level detection ( $0.1 \text{ mg}/\text{m}^3$ )
- Single sided mounting available
- Not sensitive to velocity
- Extractive versions for wet air streams

### Cons:

- Costly (\$20K-35K USD)
- Small sample volume, limited duct/stack penetration
- Affected by particle size and optical characteristics
- High maintenance (clean every 2 weeks to 3 months even with purge)
- Wet air stream requires heated slip stream (raises costs 2-5X)
- Not typically approved for hazardous areas

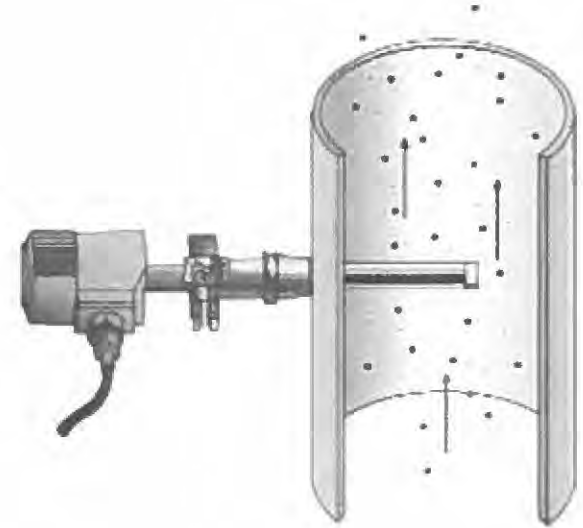


**FilterSense**

# Particulate Monitoring Technologies

## Charge Induction

As particles flow near and around a fully electrically isolated probe, charge is induced into the probe. This creates small induced currents that are analyzed. The output is proportional to mass concentration.



### Typical Applications/Industries:

- All types/sizes of FF in all industries
- Many large stacks as well
- Suitable for correlated mass monitoring, proportional mass monitoring and leak analysis/leak detection based on application and local regulations
- Suitable for cyclones and some ESPs
- Some mfg. produce extractive version for wet

# Particulate Monitoring Technologies

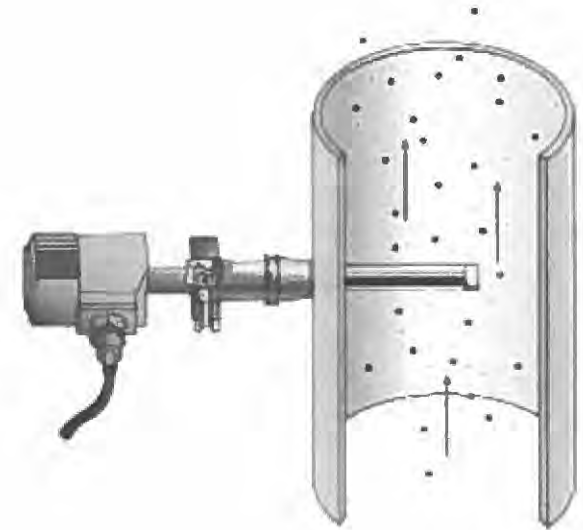
## Charge Induction

### Pros:

- **Best** response time and resolution  
(thus best for process control and filter analysis)
- **Best** cost/complexity to performance ratio
- **Best** simplicity, maintenance, durability
- Good accuracy to mass ( $\text{mg}/\text{m}^3$ ) after correlation
- Cost (\$2K-18K USD)
- Low level detection (1.0 to as low as  $0.1 \text{ mg}/\text{m}^3$ )
- Duct/stacks from 3 inch to 10+ feet
- Well suited for hazardous areas
- Well suited for high temperatures/pressures
- Some brands not affected by water vapor and well suited for high humidity

### Cons:

- Affected by particulate size and charge
- Some velocity effect but not significant in typical FF  
(Unlike tribo which is highly affected by velocity)



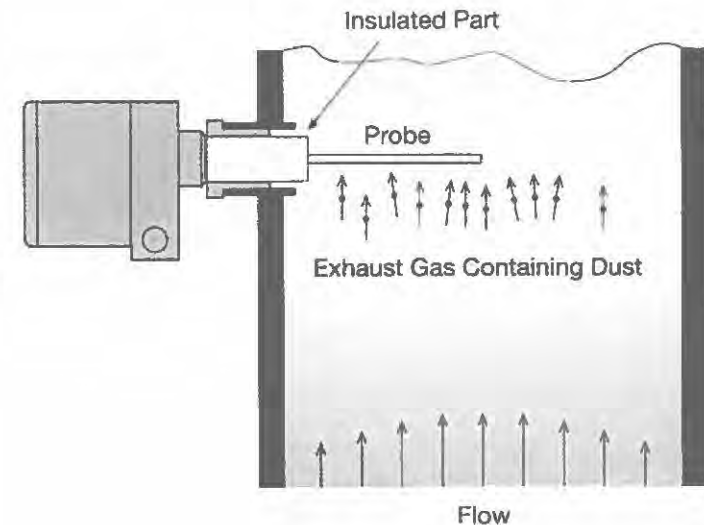
# Particulate Monitoring Technologies

## Triboelectric

As particles impact/contact an electrically conductive probe, charge is transferred into the probe. The output is proportional to mass.

### Typical Applications:

- Small and medium size FF in most industries
- Basic and gross filter leak detection
- Some stack applications
- Best for dry and non-conductive processes



# Particulate Monitoring Technologies

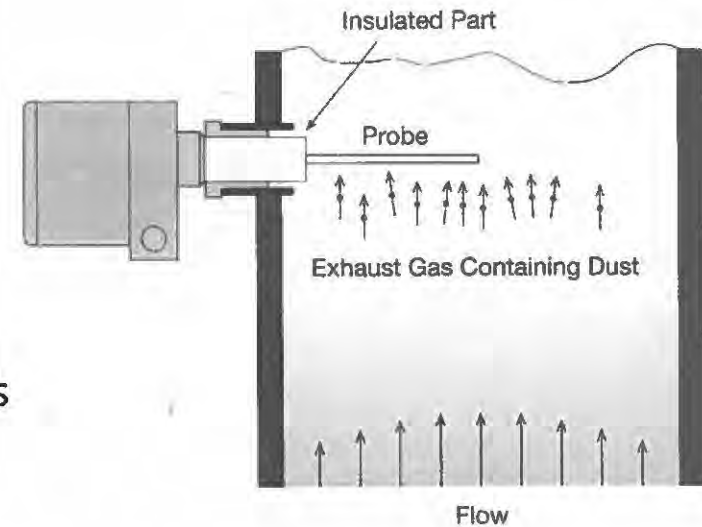
## Triboelectric

### Pros:

- Lower cost (\$1.5K-10K USD)
- Singled sided mounting
- Duct/stack size from 3 inches to 6 feet
- Well suited for high temperatures and pressures
- Well suited for hazardous areas

### Cons:

- Highly prone to false readings from moisture, corrosive gases and conductive particles
- Particle accumulation down probe length creates false low readings
- Significantly affected by velocity (squared relation)
- More affected than induction by particle charge and particle size due to impact/contact charge transfer and tribo series effect



# Particulate Monitoring Technologies

## Opacity

A light beam is transmitted across the duct/stack to a receiver (or back to sender/receiver, dual pass type).

Light is attenuated by absorption and diffusion from particulates. The more particles the more light attenuation.

### Typical Applications:

Opacity measurement for combustion processes

- Coal fired boilers
- Incinerator
- Cement Kilns



# Particulate Monitoring Technologies

## Opacity

### Pros:

- **Best** for human eye visual correlation
- Absolute output of visual appearance
- Full coverage of large ducts/stacks
- Not affected by velocity changes

### Cons:

- Not accurate at low level (limited to 5-10mg/m<sup>3</sup> and higher)
- Not linear to mass and cannot repeatedly correlate to mass (despite many mfg. claims)
- Costly (\$10K-35K USD)
- High maintenance (clean every 2 weeks to 3 months even with purge)  
(Also alignment issues with stack movement and temperature variations)
- Not well suited for hazardous area
- Affected by water vapor (vapor disturbs light transmission)



# Particulate Monitoring Technologies

## Optical Scintillation

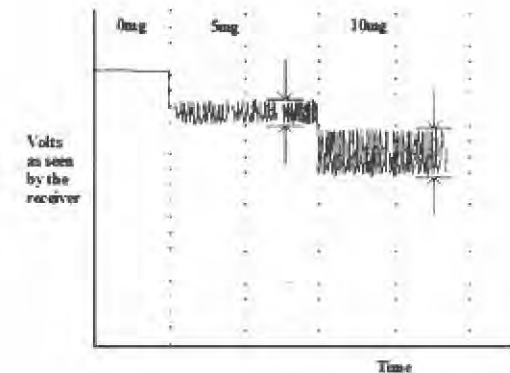
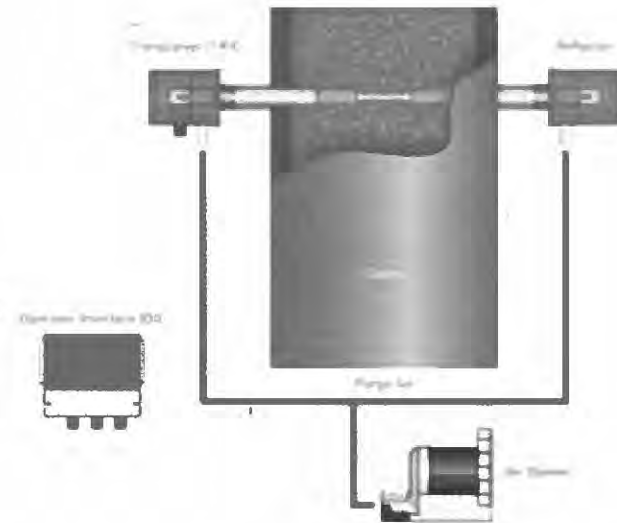
A light beam is transmitted across the duct/stack to a receiver (like single pass opacity). The variation (flicker) in light beam intensity is measured by the receiver. The output is proportional to mass concentration.

### Typical Applications:

Similar industries to opacity but where opacity output not required

Combustion process baghouses and ESPs

- Coal fired boilers
- Incinerator
- Cement Kilns



**FilterSense**



# Particulate Monitoring Technologies

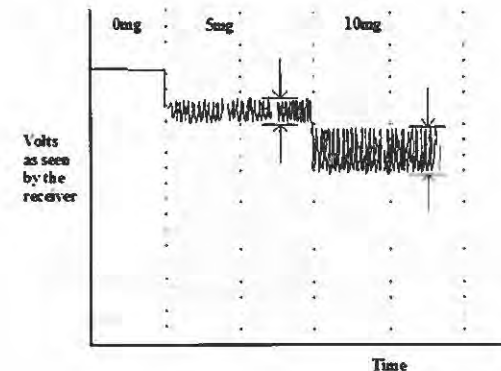
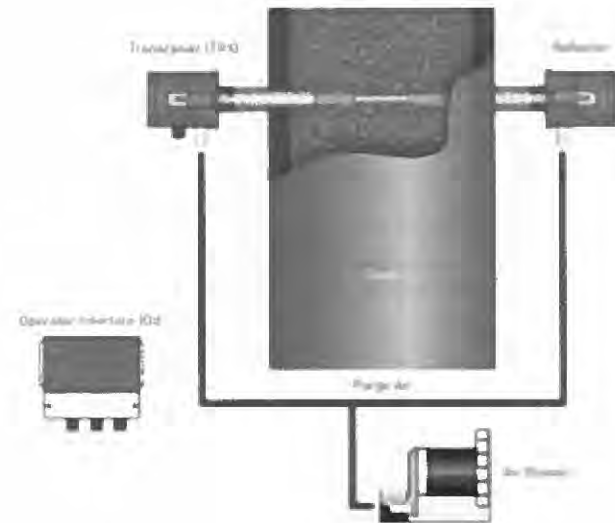
## Optical Scintillation

### Pros:

- **Best** for ESPs where opacity not required
- Less affected by dust build up and alignment
- Full coverage of large ducts and stacks
- Not sensitive to velocity changes

### Cons:

- Not accurate below 5-10mg/m<sup>3</sup>
- Costly (\$10K-20K USD)
- Complex mounting
- Highly susceptible to vibration and particle size
- Susceptible to air stream temperature variation
- Not well suited for hazardous area
- Not suited for smaller ducts/pipes
- Affected by water vapor



**FilterSense**

# Particulate Monitoring Technologies

## Beta Attenuation

A Beta ray is transmitted across a section of filter tape before and after passing an extracted sample of flue gas through the same spot of the filter tape. The amount of the beta ray (electron) absorption is measured. The output is direct in mass.

### Typical Applications:

Primarily wet large combustion stacks such as power, cement kilns and waste incineration with mass output requirement

Wet Scrubbers some ESPs and FFs



# Particulate Monitoring Technologies

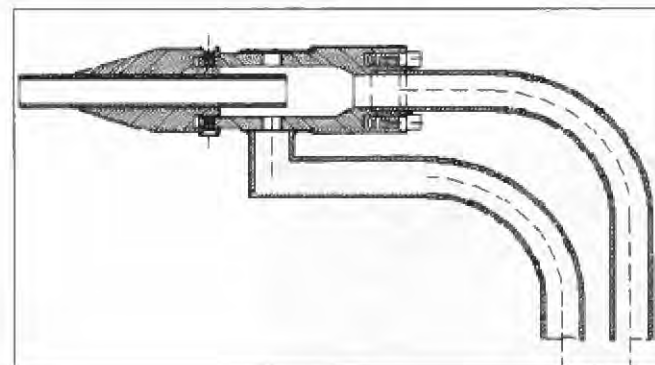
## Beta Attenuation

### Pros:

- Direct measure of mass
- Not effected by particle characteristic changes
- Configurable for wet or dry applications

### Cons:

- Highest cost (\$50-150K)
- Periodic sampling (not continuous)
- Slow Response Time
- High maintenance
- Poor cost to benefit ratio



# Particulate Monitoring Technology Comparison

	Particle Charge		Scattered Light		Light Transmission		Beta
	Induction	Triboelectric	Forward Scatter	Back Scatter	Opacity	Scintillation	Beta & TEOM Hybrid
Range (mg/m <sup>3</sup> )	0.1 – 1000	1 – 1000	0.1 – 300	0.01 – 500	10 – 1000	10 – 1000	0.1 – 1000
Response	Best	Best	Good	Good	Good	Good	Poor
Correlation Accuracy	Good	Good	Good to Best	Good	Poor	OK	Good to Best
Fabric Filter Applications	Best	Good	Good	Good	Some	Some	Some
ESP	Some	X	Good	Good	Good	Good	Good
Wet Scrubber	Some	X	Best	Good	X	X	Best
Purchase Cost	\$\$	\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$\$\$\$
Maintenance & Complexity	Low	Med	High	High	High	High	Very High



# **Classes of Particulate Monitoring**

**FilterSense**

## Classes and Sub Categories of Particulate Monitors

Class	Category	Description	Process	Monitor Types
Mass Output	PM-CEMS	<ul style="list-style-type: none"> <li>• Continuous Mass Output</li> <li>• 12-15 Pt. Correlation</li> <li>• Best Available Accuracy</li> <li>• Least Uncertainties</li> </ul>	<ul style="list-style-type: none"> <li>• Largest stacks (and wet)</li> <li>• Most Varying process/particles</li> </ul>	<ul style="list-style-type: none"> <li>• Light scatter</li> <li>• Beta &amp; TEOM</li> </ul>
	General Quantitative	<ul style="list-style-type: none"> <li>• Continuous Mass Output</li> <li>• 3-9 Pt. Correlation</li> <li>• Good accuracy</li> <li>• Limited Uncertainties</li> </ul>	<ul style="list-style-type: none"> <li>• Large stacks</li> <li>• Less varying process/particles</li> </ul>	<ul style="list-style-type: none"> <li>• Light Scatter</li> <li>• Induction</li> <li>• Scintillation</li> </ul>
Proportional to Mass	General Qualitative	<ul style="list-style-type: none"> <li>• Proportional to mass output</li> <li>• Option to ref. gravimetric tests for setup and alarm</li> </ul>	<ul style="list-style-type: none"> <li>• Large and medium fabric filters</li> <li>• Stacks and common outlets</li> </ul>	<ul style="list-style-type: none"> <li>• Induction</li> <li>• Light scatter</li> <li>• Scintillation</li> </ul>
	Filter Leak Analysis	<ul style="list-style-type: none"> <li>• Leak analysis and detection</li> <li>• No mass correlation</li> </ul>	<ul style="list-style-type: none"> <li>• Mid to large fabric filters</li> <li>• Single compartment</li> <li>• Individual cell in multi-compartment</li> </ul>	<ul style="list-style-type: none"> <li>• Induction</li> <li>• <u>Triboelectric</u></li> </ul>
Opacity		Percentage of light transmittance	Large process stacks	<u>Transmissometer</u>

## Direct Mass Output

- Most Correlate/calibrate to gravimetric samples
- Output and record in mass units ( $\text{mg}/\text{m}^3$  or  $\text{gr}/\text{ft}^3$ )
- Compliance based on mass output from the instrument

## Proportional to Mass

- Instrument output is proportional/linear to mass
- Ideally output is an absolute output (ex. For charge pA)
- Otherwise 0-100% scale (which requires normalization)
- Includes Leak Analysis/Leak Detection
  - Proportionality/linear to mass is the basis for good Leak Analysis and even basic leak detection
  - If instrument output is not proportional/linear to mass, device not suitable for compliance, or basic leak detection



# Opacity

- Measurement of visual appearance
- Not linear or repeatable to mass
- Non-linear correlations to mass tend to be less repeatable
- All opacity monitors are optical
- Not all optical instruments measure opacity

## Technical Commonality among PM Technologies

- Output is proportional to mass concentration
- Slope is unknown all require correlation to gravimetric
- Instruments for compliance should have internal QA functions
- QA (Quality Assurance) functions include:
  - Automatic self testing such as zero, span, and sensor tests
  - Automatic data logging
  - External testing tools

## Technical Differences Drive Market/Regulations

- The most accurate Instruments are:
  - Least affected by changing process variables and particle type
  - Highest level of QA functions - they are also the most complex and costly.
  - Result: A fit for largest sources which there are fewer
- Instruments with good accuracy are:
  - Not overly affected by changing variables
  - high quality QA functions
  - simpler and less costly
  - Result: A fit for many stacks applications and all types and sizes of FF including large, mid and small filters and also the compartments of large multi-compartment baghouses.



# **Particulate Monitoring Standards and Regulations**

## Standards & Regulations: Summary

Class	Category	Standards	Regulations	Details
Mass Output	PM-CEMS	<ul style="list-style-type: none"> <li>PS-11</li> <li>EN 15267-3</li> <li>EN 14181</li> </ul>	<ul style="list-style-type: none"> <li>US CAM</li> <li>US State (by Permit and Consent decrees)</li> <li>EU Various</li> </ul>	<ul style="list-style-type: none"> <li>15 point correlation</li> <li>Internal and External QA equipment audits</li> <li>QA performance test audits</li> <li>Highest level of correlation</li> <li>Correlation <math>R^2 \geq 0.85-0.90</math></li> </ul>
	General Quantitative	<ul style="list-style-type: none"> <li>ASTM D7392 (PMD)</li> <li>EN 15859 (Filter Monitor)</li> </ul>	<ul style="list-style-type: none"> <li>US Title V CAM</li> <li>EU various</li> </ul>	<ul style="list-style-type: none"> <li>3-9 point correlation</li> <li>Internal and External QA equipment audits</li> <li>Annual correlation check</li> <li>Correlation <math>R^2 \geq 0.75</math></li> </ul>
Proportional to Mass	General Qualitative	<ul style="list-style-type: none"> <li>ASTM D7392 (PMD)</li> <li>EN 15859 (Filter Monitor)</li> <li>For CPMS No Standard</li> </ul>	<ul style="list-style-type: none"> <li>US Cement and Boiler NESHAP (PM-CPMS)</li> <li>EU various</li> </ul>	<ul style="list-style-type: none"> <li>3 point performance test</li> <li>Internal and External QA equipment audits</li> <li>Alarm established based on PM limit</li> <li>Correlation <math>R^2 \geq 0.6-0.7</math></li> </ul>
	Filter Leak Analysis	<ul style="list-style-type: none"> <li>ASTM D7392 (LD)</li> <li>EN 15859 (Filter Leak)</li> <li>For MACT Leak – No standard (FFLDG is limited guidance)</li> </ul>	US MACT, NESHAP and other state	<ul style="list-style-type: none"> <li>Graphical signal analysis</li> <li>External QA equipment audit</li> <li>Alarm established on baseline and peak signal levels</li> </ul>
Opacity		PS-1	US Opacity	<u>Transmissometer</u>

## Performance Standards: Quality Assurance (QA)

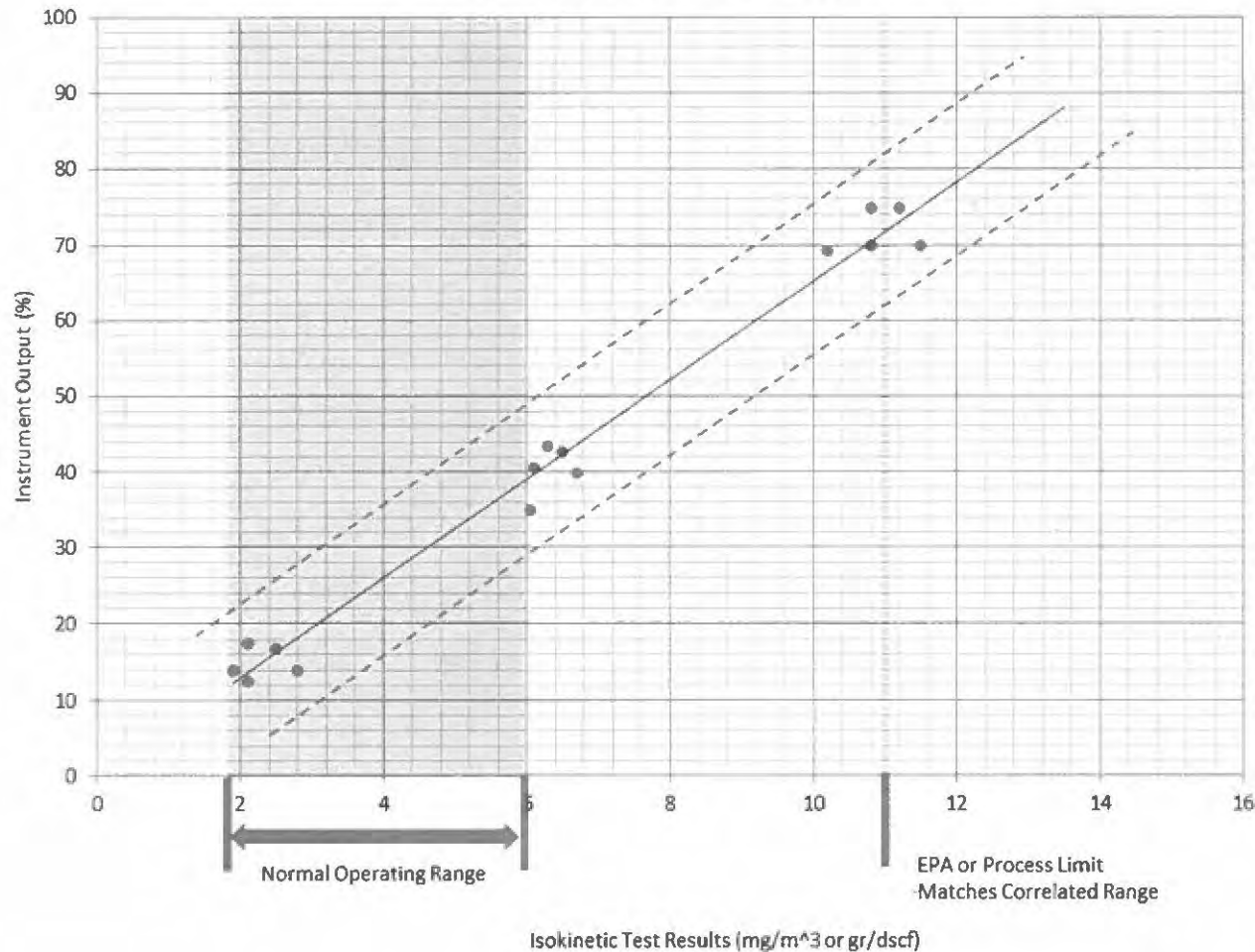
- QA is a critical part of instrument performance
- QA that may apply based on standard/regulation
  - Internal automatic self testing functions
  - External testing tools
  - Periodic performance testing (ex. Annual)
  - Periodic re-certification testing (ex. 3year)
  - Response to actual PM increase testing

## Regulations: Mass Output

- Applicable standards for mass output: US EPA PS-11, ASTM D7392, EN15267-3 EN15859 and UK MCERTS
- Standards provide guidance and procedures to allow PM monitor output to be correlated to measured PM emissions
- Once correlated, PM monitor output is reported in mass units mg/m<sup>3</sup> or equivalent
- Correlated output is used to demonstrate compliance
- Requires high number of correlation points over full range

# Regulations: Mass Output Performance Testing

Large number of points over wide process operating range  
Correlation  $R^2 \geq 0.85$

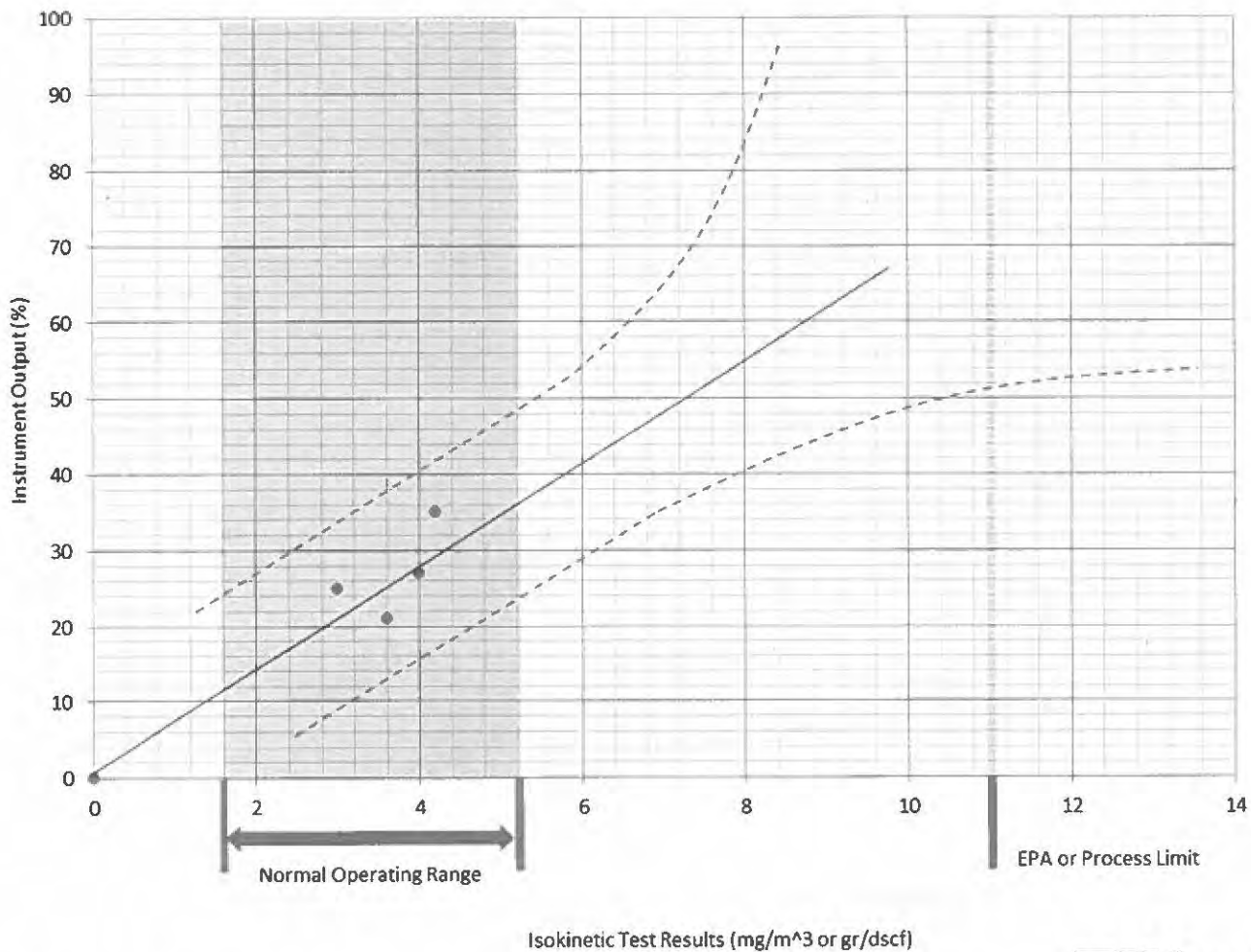




# Regulations: Mass Output Performance Testing

Fewer number of points over smaller range (requires extrapolation)

Correlation  $R^2 \geq 0.75$



## Regulations: Mass Output Calculations and Performance Criteria

- Convert all data to PM units (i.e.. Mg/m<sup>3</sup>)
- Calculate least squares linear correlation
  - Reference standard for statistical formulas
- Calculate performance results and evaluate if within acceptable criteria, typically:
  - PS-11: Correlation coefficient  $\geq 0.85$  ( $\geq 0.75$  for low emitting sources)
  - ASTM: Correlation coefficient  $\geq 0.85$  (PMD),  $\geq 0.75$  (BLD)
  - EN 15267-3 Correlation coefficient  $\geq 0.90$
  - Confidence interval  $\leq 10\%$
  - Tolerance interval  $\leq 25\%$
- Unsuccessful, consult standard for remedy

## Regulations: Proportional/Linear to Mass

- Applicable regulations:
  - 40 CFR 63 NESHAP for Portland Cement Plants
  - 40 CFR 63 NESHAP for Major Source Boilers
- CPMS is “Continuous Parametric Monitoring System”
- US-EPA replaced PM-CEMS with PM CPMS for Boiler and Cement NESHAP
  - (“can’t meet PS-11 requirements for best performing sources expected to be at or below Method 5 limits (3mg/m<sup>3</sup>)”)
- Lower number of performance test points (3-9 runs)
- Direct instrument correlation to mass not required

## Regulations: Relative Mass

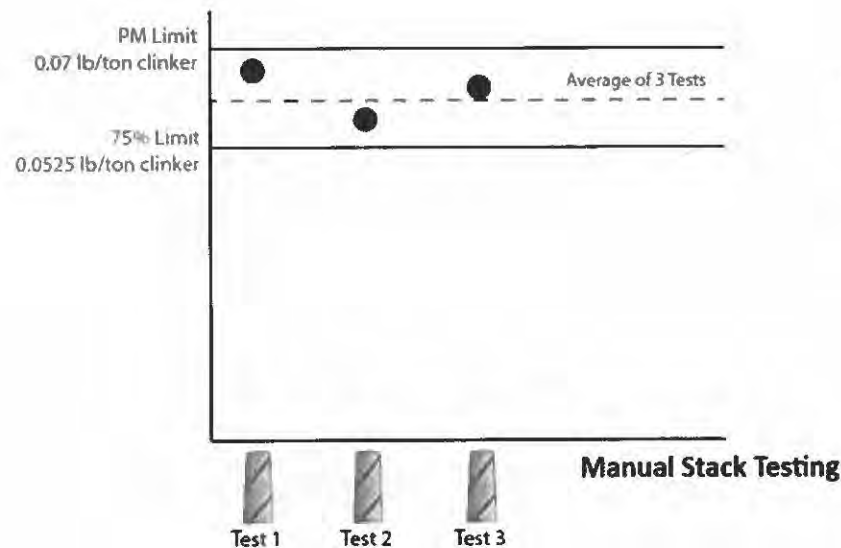
### Alarm Determination (New NESHAP ref – replaced PS-11)

- Calculate avg. of mA readings over method 5 test period
- Establish compliance alarm based on performance test results at:
  - PM result  $>$  75% of limit: establish alarm at PM-CPMS average mA output recorded during test
  - PM results  $<$  75% of limit: establish alarm at point that represents 75% of PM limit by scaling avg. mA linearly
- Compliance is based on 30 day rolling average of PM-CPMS hourly average output.
- Repeat annually

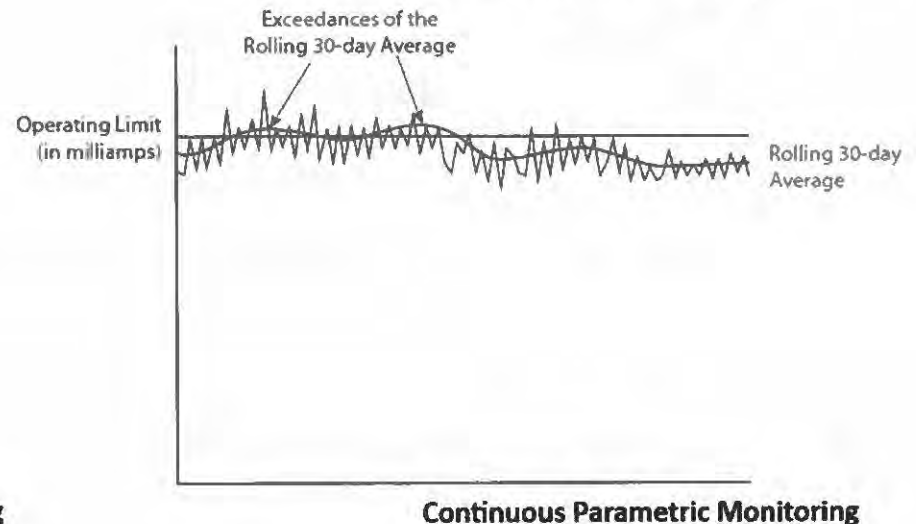
# Regulations: Relative Mass

## Alarm Determination (New NESHAP example)

Performance Testing Results  
> 75% of operating limit



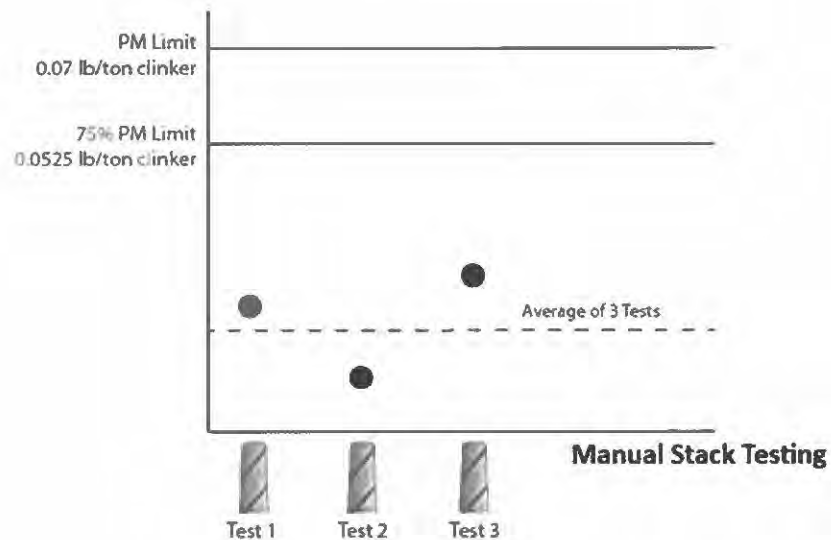
Alarm established at average  
CPMS output during test with  
30 day rolling average



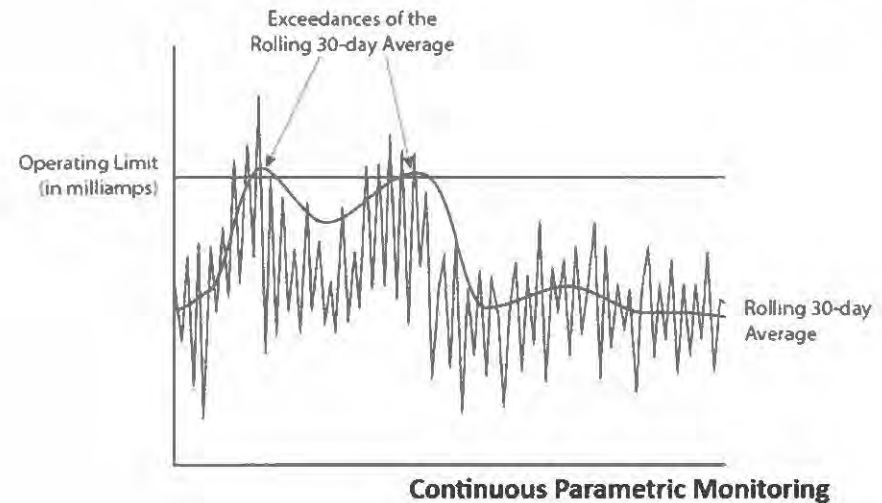
# Regulations: Relative Mass

## Alarm Determination (New NESHAP example)

Performance Testing Results  
< 75% of operating limit



Alarm established at point linearly scaled that represents 75% of operating limit with 30 day rolling

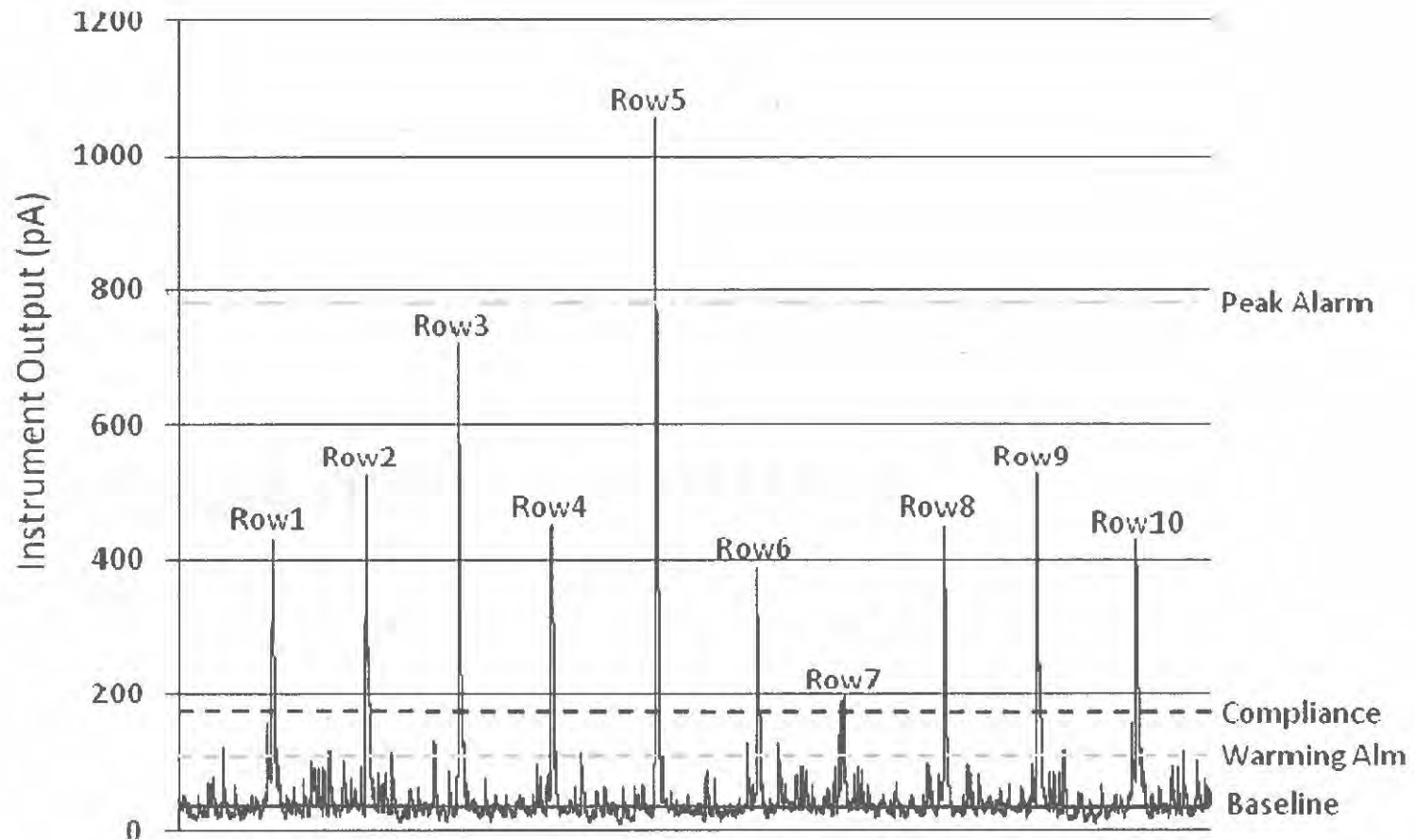


## Regulations: Leak Detection/Analysis Overview

- Applicable regulations:
  - Numerous MACT/NESHAP
  - EPA-454/R-98-015 Fabric Filter Leak Detection Guidance
  - ASTM D7392 an actual standard for leak detection
- Instrument must be certified to detect 10mg/m<sup>3</sup> or 1mg/m<sup>3</sup> depending on regulation
- Provides quick indication of filter leaks and other problems to initiate corrective action resulting in keep emissions low
- Alarms established based baseline and peak readings
- Performance test not required but helpful for establishing alarm point headroom - instruments must be proportional to mass

# Regulations: Leak Analysis/Detection

## Recommended Alarm Point Determination





# Advanced Fabric Filter Particulate Monitoring

# DynaCHARGE™ PM100 Series

*“Ideal For Stacks, Multi-compartment  
Dust Collectors & Baghouses”*

## Features:

- PM 100 Basic & PRO Versions
  - Continuous Particulate Monitoring System
  - Single & Multi-channel Configurations
  - Comprehensive Alarms
  - Advanced Leak Detection
  - \*EPA Quality Assurance Checks



# DynaCHARGE™ PM 100 PRO

## PRO Series Features :

### Your Choice of Performance:

- Measurement
  - Highest Precision at Lowest Levels (0.1 mg/m<sup>3</sup>)
- Monitoring
  - High Precision at Low Levels (1 - 5 mg/m<sup>3</sup>)
- Detection
  - Maintenance / Leak Indication

*“Ideal For Stacks, Multi-compartment dust collectors & baghouses”*



# DynaCHARGE™ PM 100 PRO

## PRO Series Features:

### EPA & Regulatory Compliance

- EPA Quality Self-Checks
- Output in Mass Units ( $\text{mg}/\text{m}^3$ )

### On-Screen Trending

- Particulate Flow & Filter Condition
- Proactively Evaluate Events
- Simplify EPA Response Checks & Gravimetric Correlation

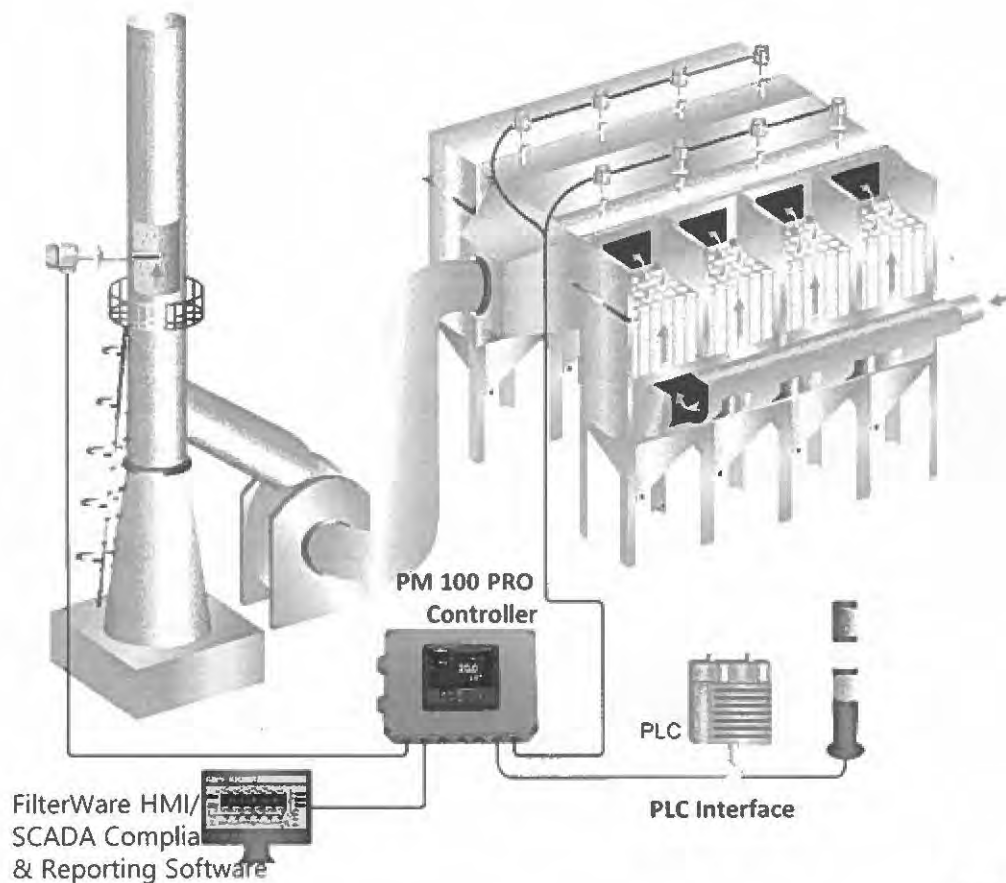
### Hazardous Area Approvals

*“Ideal For Stacks, Multi-compartment dust collectors & baghouses”*



# DynaCHARGE™ PM100 Series

*“Ideal For Stacks, Multi-compartment dust collectors & baghouses”*



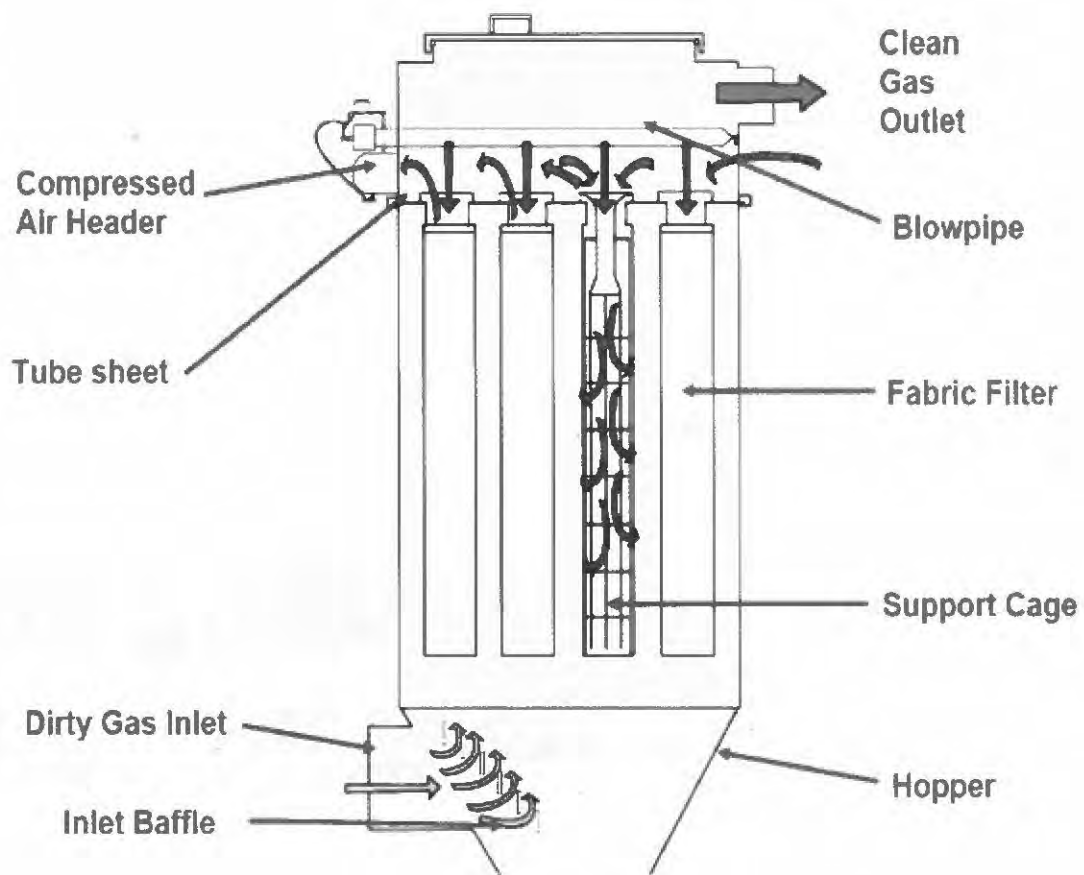
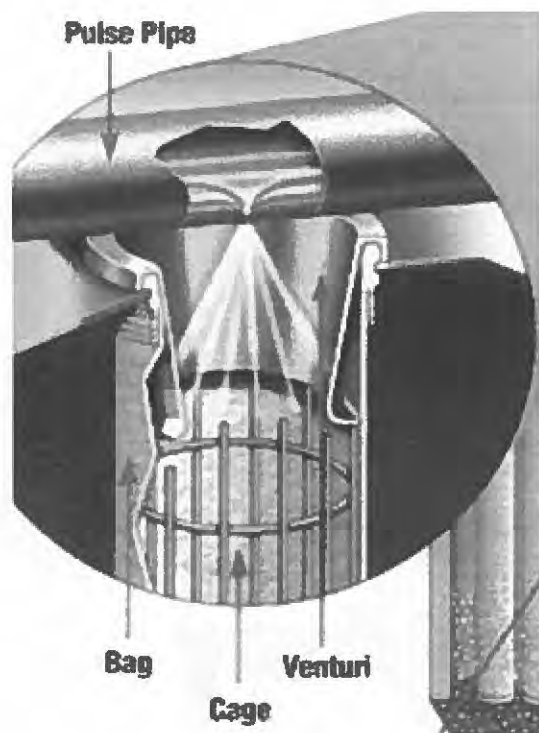


# **Advanced Fabric Filter Control and Diagnostics**

Particulate Monitoring and Control Solutions

**FilterSense**

# Typical Pulse Jet Baghouse



# B-PAC™ Controls Series

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## Baghouse Process Analyzer & Controller

- Integrate, Automate & Optimize Baghouse Operations
  - Differential & Header Pressure
  - Intelligent Cleaning Control
  - Particulate Monitors
  - Air Flow
  - Fan Amps
  - Hopper Level
- Reduce Operating & Maintenance Costs
- Reduce Emissions & Minimize Product Loss

*“B-PAC Offers Fast ROI:  
1-2 Years”*



Particulate Monitoring and Control Solutions

**FilterSense**



# B-PAC™ PRO

---

## PRO Series Features:

### EPA & OSHA Compliance

- EPA Quality Assurance Checks
  - Zero, Ground, Span,
- Redundant Data Logging
- Reporting via FilterWARE™ Software

### Advanced Device/Process Diagnostics

### Hazardous Area Approvals

*“B-PAC Offers Fast ROI:  
1-2 Years”*



# B-PAC™ Technology

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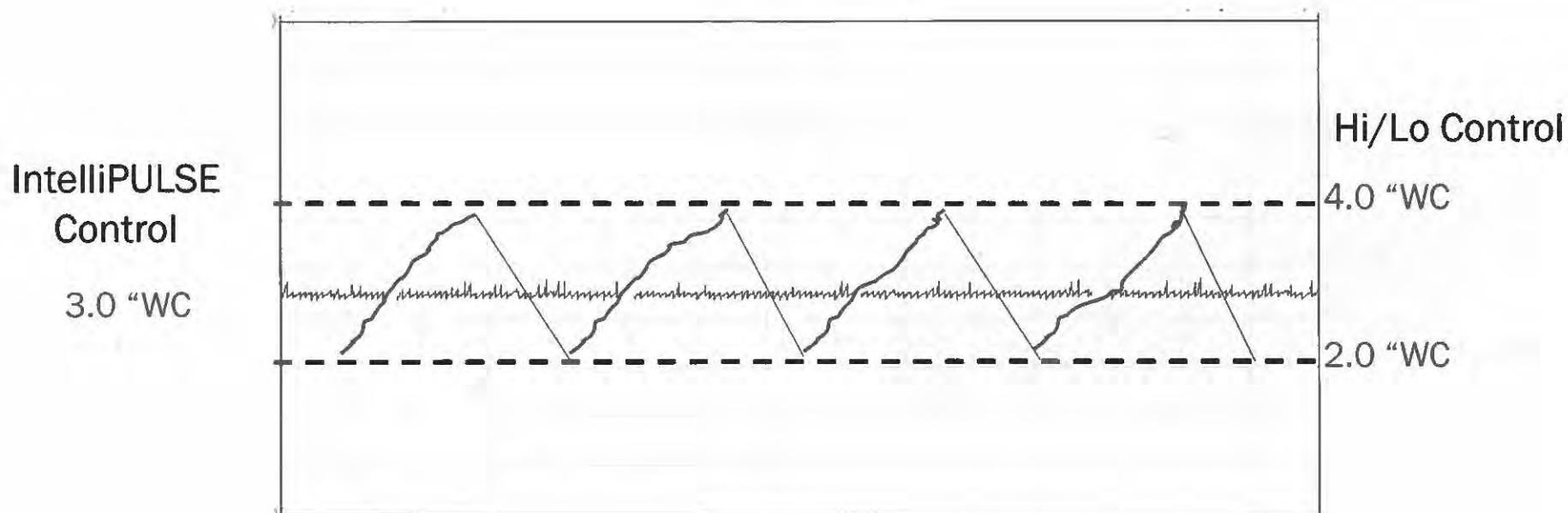
- **Integrated Particulate Monitoring**
- **IntelliPULSE™ Intelligent Pressure Control**
  - Lowers Emissions & Extends Filter Life
  - $\Delta P$  Control ( $\pm 0.1$ " WC)
  - Reduce Compressed Air consumption
    - 15-40% compared to Hi/Lo Method Via PLC
    - Up to 90% over continuous cleaning
- **Real-Time Diagnostics & Data Logging**
  - Leak Detection & Location
    - Identify leaks by filter row weeks before visible emissions
    - Isolate & Replace filters w/out Shutdown
    - Eliminate Visual Inspections Completely
  - Failed Solenoid & Pulse Diaphragm Detection

***"B-PAC Offers Fast ROI:  
1-2 Years"***



# Intelligent Pressure Control

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# Intelligent Differential Pressure Control

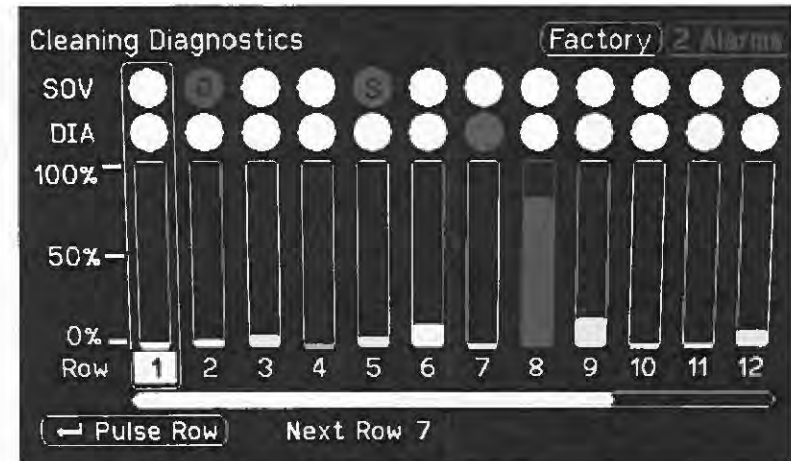
- Plant Benefit
  - Maintain constant air flow
  - Minimize process variation and improve production consistency
  - Extend filter life
- Compliance Benefit
  - Minimize pulsing
  - Maintain filter cake – critical for optimal filtration efficiency

Consistent Filter Cake



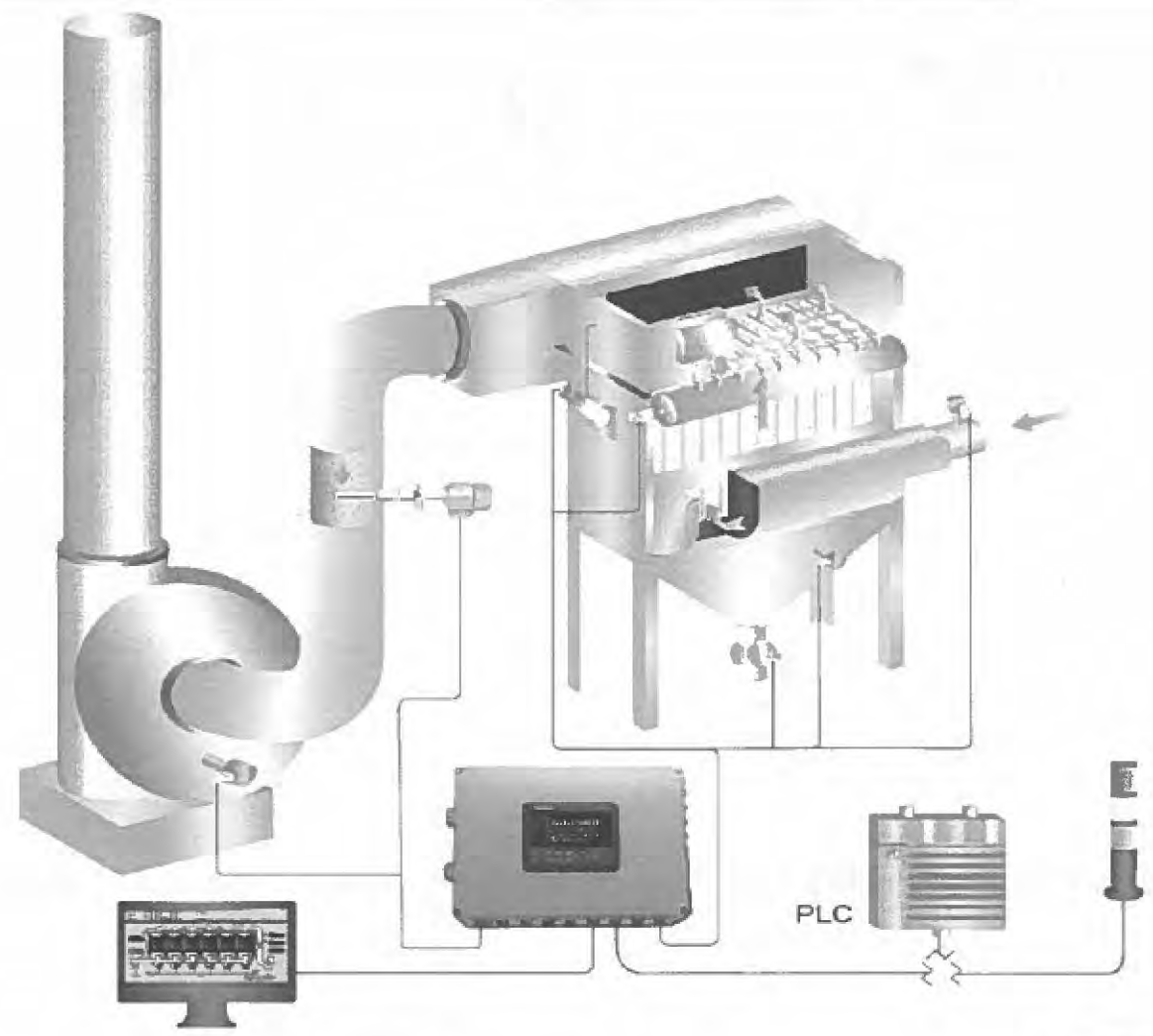
# Real-Time Actionable Diagnostics

- Locate Filter Leaks by Row  
Weeks Before Visible Emissions
- Detect & Locate Failed  
Solenoids & Pulse Diaphragms
- Proactively Take Action and  
Plan Around Early Warning  
Alarms Before they Cause  
Unforeseen Shutdowns



# B-PAC™ Controls Series

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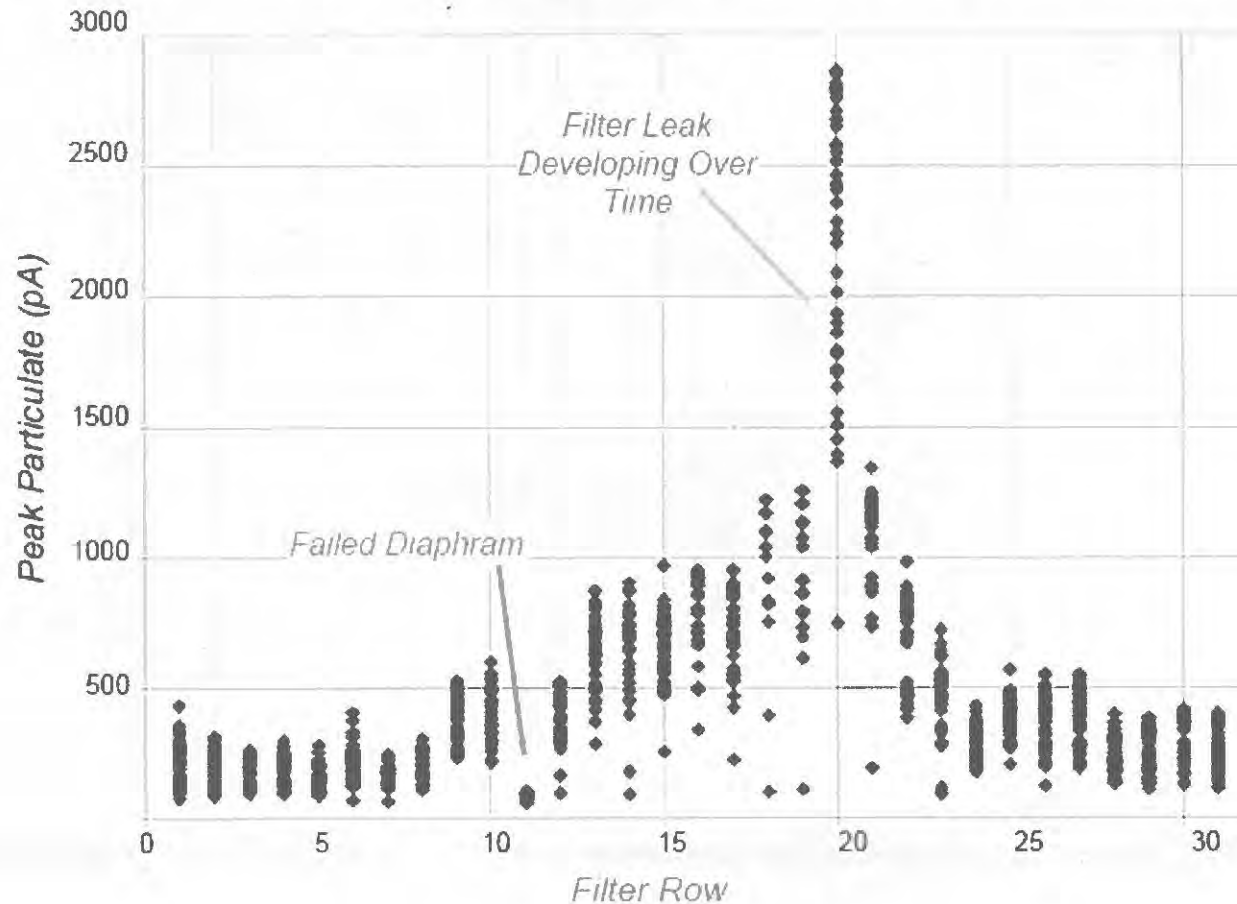


Particulate Monitoring and Control Solutions

**FilterSense**

# Leak Locating Diagnostics

Response over 40+ cleaning cycles pinpoints filter failure and location



# Particulate Monitoring and Leak Locating Diagnostics

## ■ Plant Benefit

- Pinpoint failure before visible emission
- Greatly reduce maintenance costs associated with filter leaks
- Extend filter life
- Reliable sensors with internal self checks provide most benefit to operators

## ■ Compliance Benefit

- Early warning of filter failure allows proactive replacement
- Overall reduction in PM output

## ■ Monitoring Points – Multi-compartment BH

- Minimum – main outlet
- Better – each compartment + main
- Best – each compartment + main + leak locating diagnostics

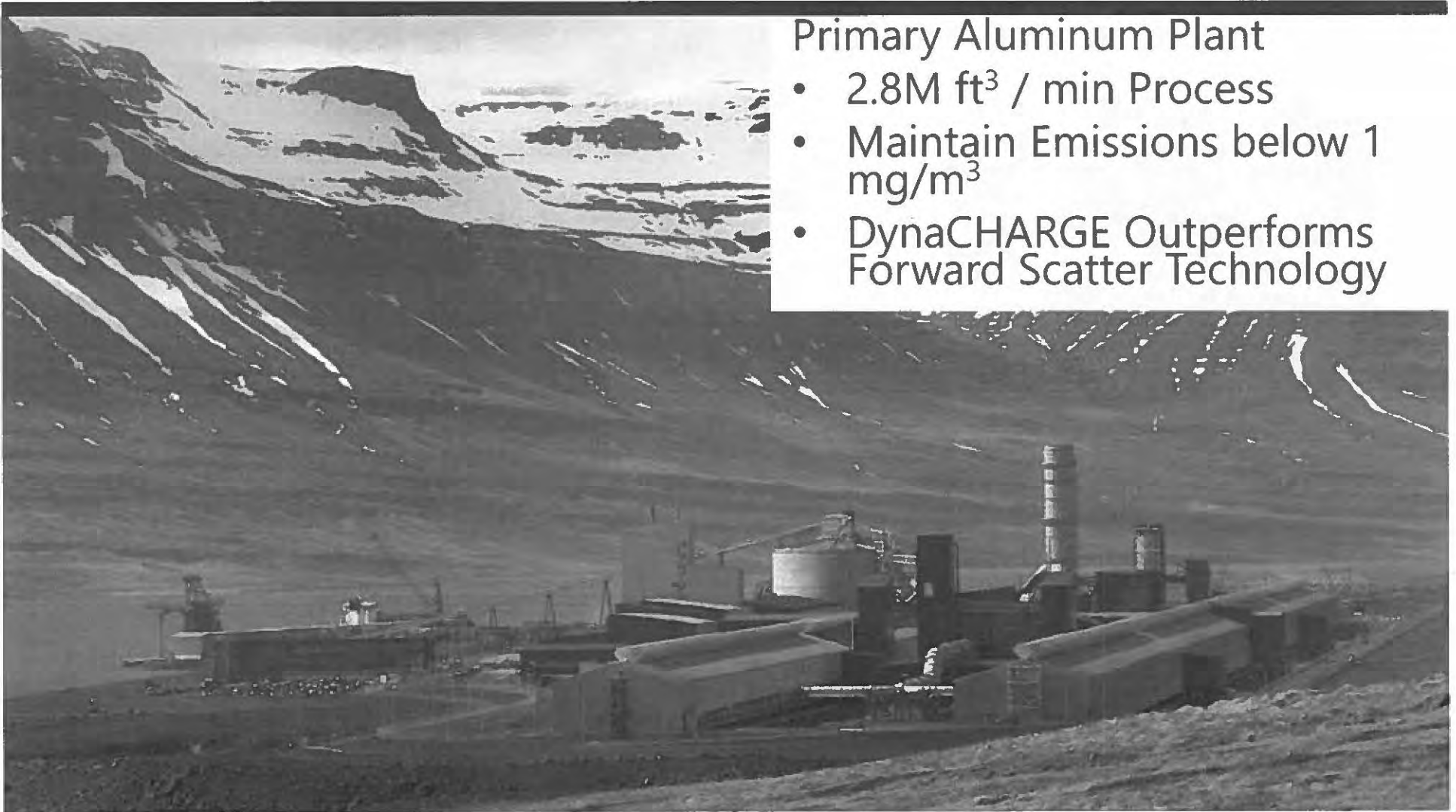




# Alcoa Iceland

## Primary Aluminum Plant

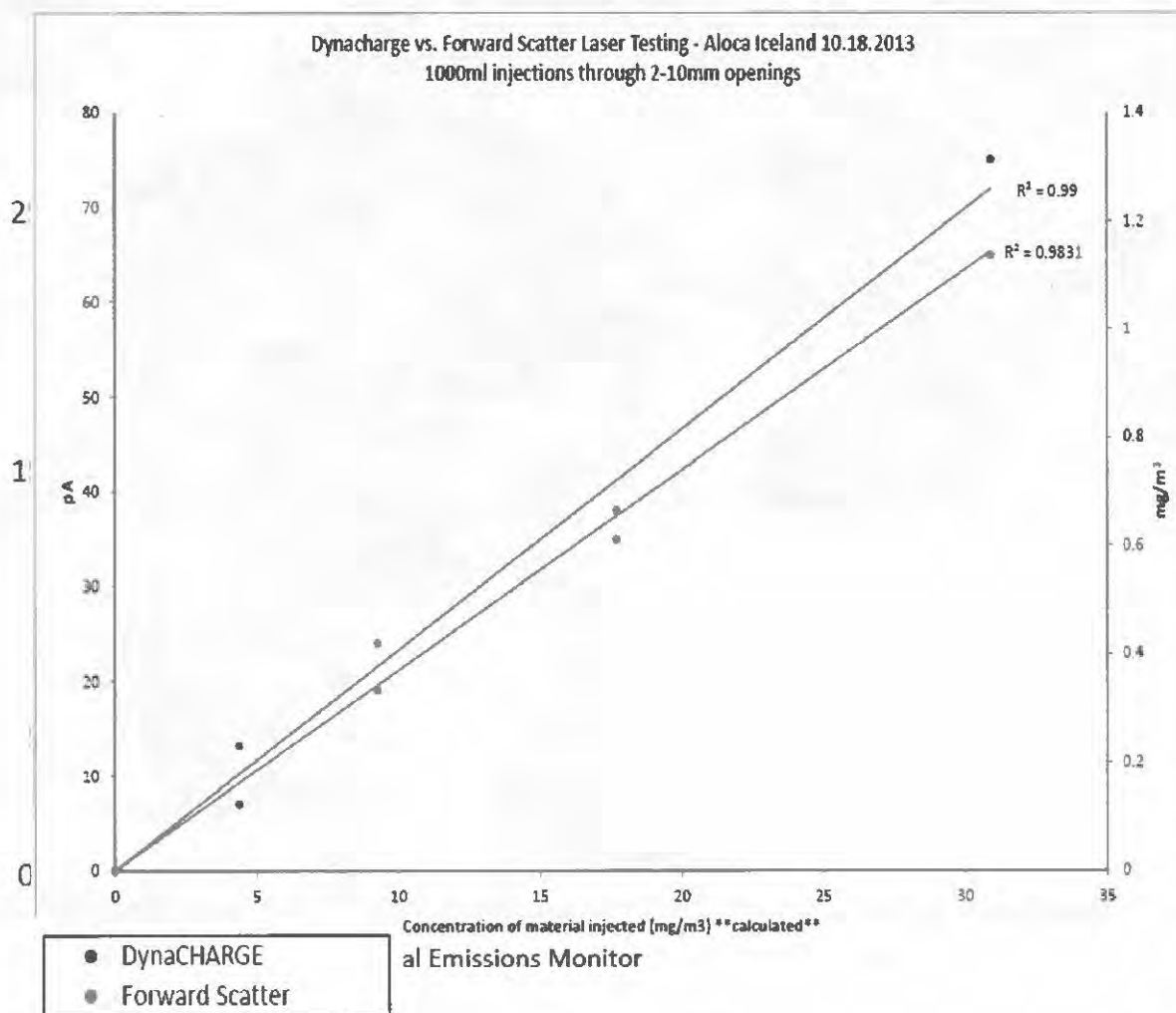
- 2.8M ft<sup>3</sup> / min Process
- Maintain Emissions below 1 mg/m<sup>3</sup>
- DynaCHARGE Outperforms Forward Scatter Technology



Particulate Monitoring and Control Solutions

**FilterSense**

# Alcoa Iceland



Particulate Monitoring and Control Solutions

**FilterSense**

# Novelis Oswego, NY

## Secondary Aluminum Plant

- 1.7M ft<sup>2</sup> Smelting Facility
- 7 Baghouses (MACT)
- 2 Powder Injection Lines



Particulate Monitoring and Control Solutions

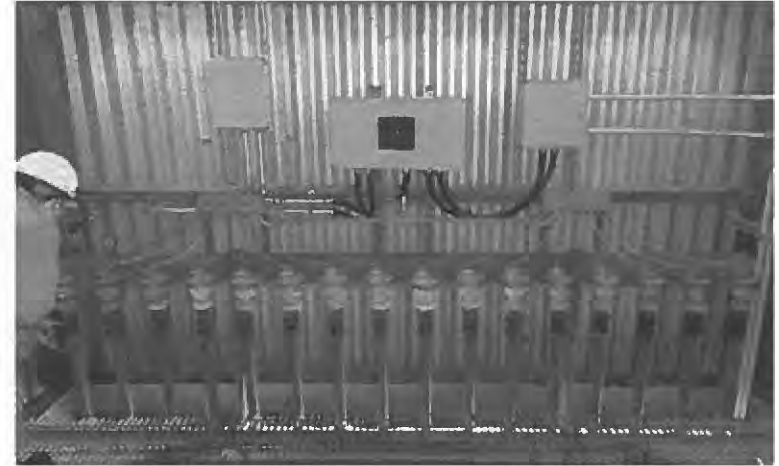
**FilterSense**

# Novelis Oswego, NY

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## Challenge

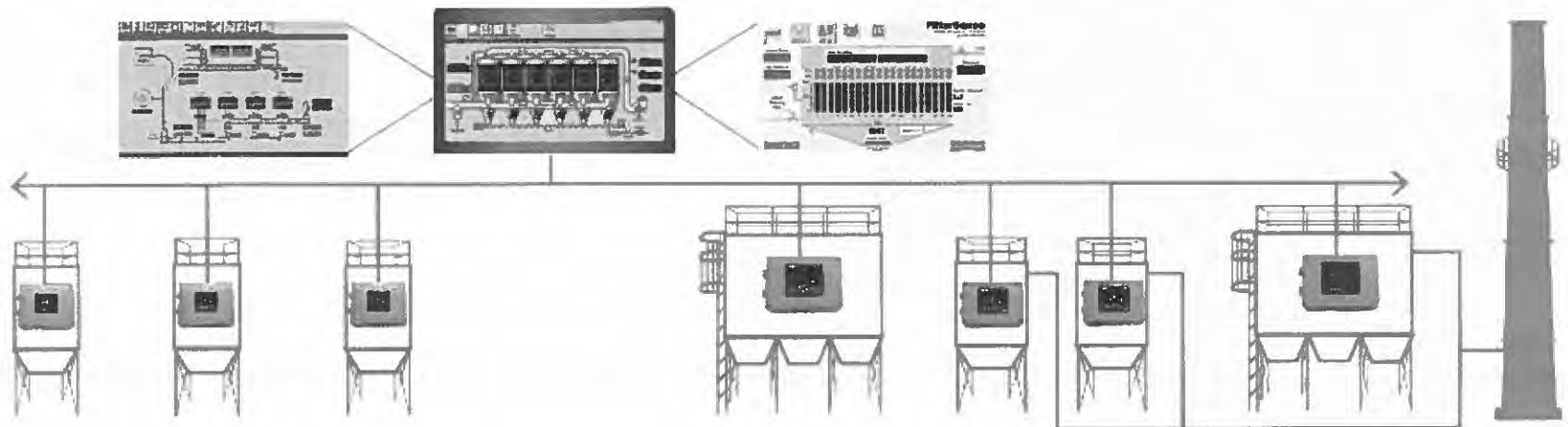
- Existing Triboelectric Unreliable
  - False Alarms
  - Poor Response to PM
  - Compliance Risk
  - Production Disruptions



# Novelis Oswego, NY

## Solution

- Install Reliable Technology
- Ensure MACT Compliance & Improve Process



Particulate Monitoring and Control Solutions

**FilterSense**

# Novelis Oswego, NY

---

## Plant Benefits:

- US-EPA MACT (BLDS) Compliance
  - Automated QA Self-Tests
    - Zero, Span, PM response
      - EPA-454/R-98-015
      - ASTM D7392
  - Automated EPA Reporting



# Novelis Oswego, NY

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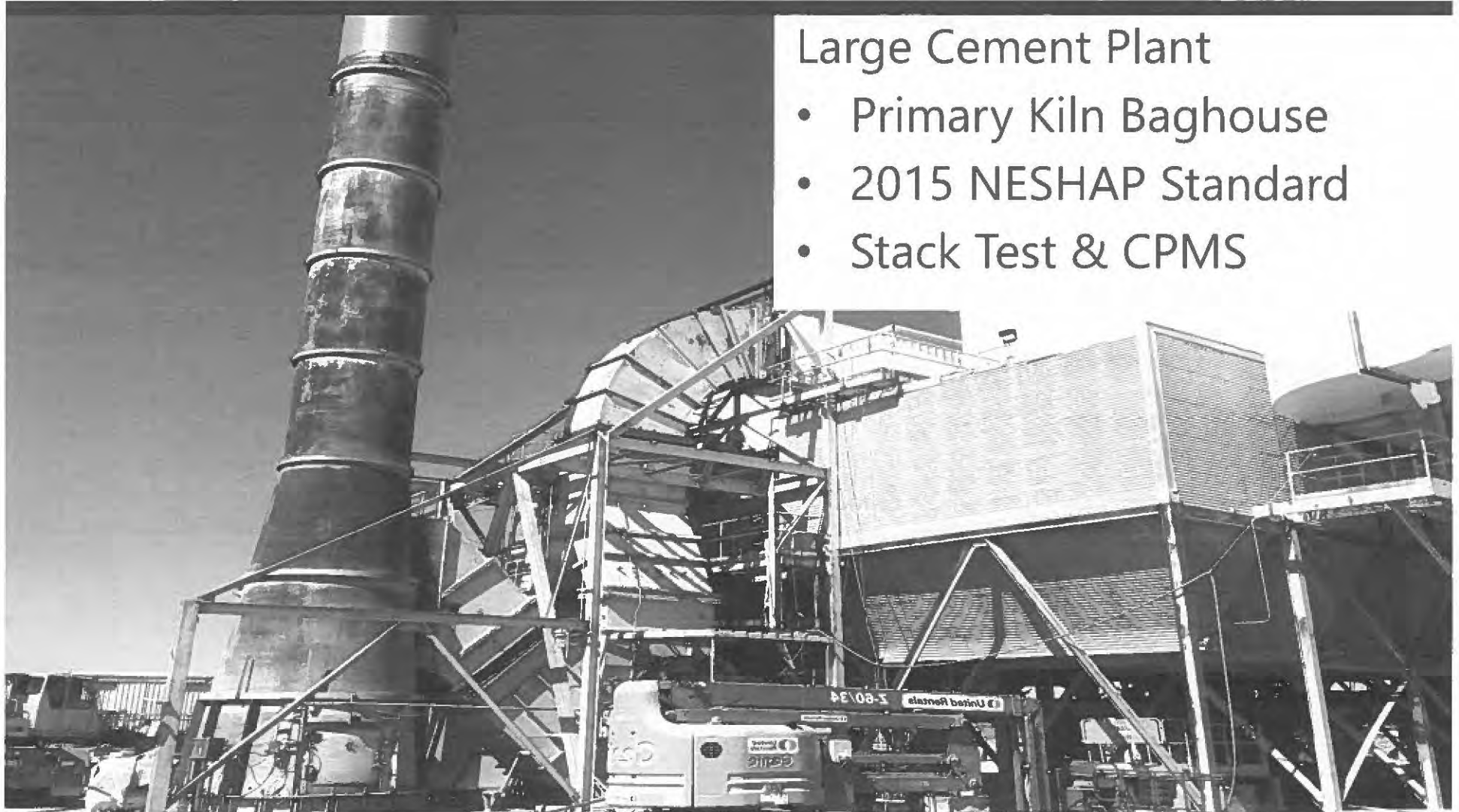
## Plant Benefits:

### Improved Operation

- Actionable Diagnostics
  - Leak Detection/Location
    - Reduced Emissions
    - Decreased Downtime
    - Actionable Diagnostics
  - Intelligent DP Control
    - Maintains Process at Ideal Conditions



# Buzzi Unicem, USA



## Large Cement Plant

- Primary Kiln Baghouse
- 2015 NESHAP Standard
- Stack Test & CPMS

Particulate Monitoring and Control Solutions

**FilterSense**

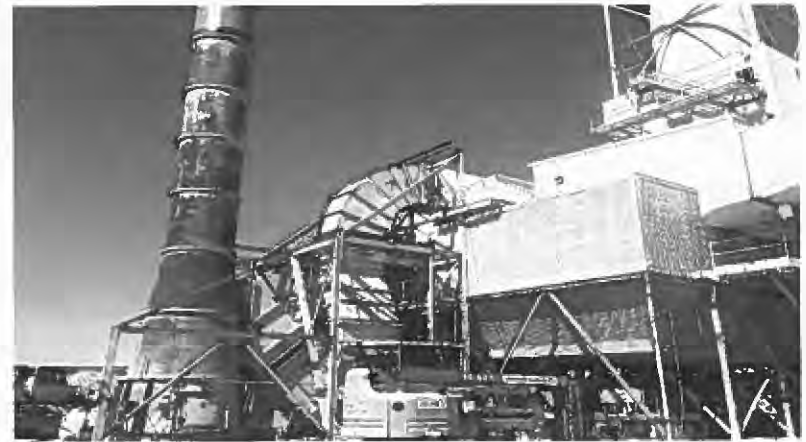


# Buzzi Unicem, USA

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## Challenge

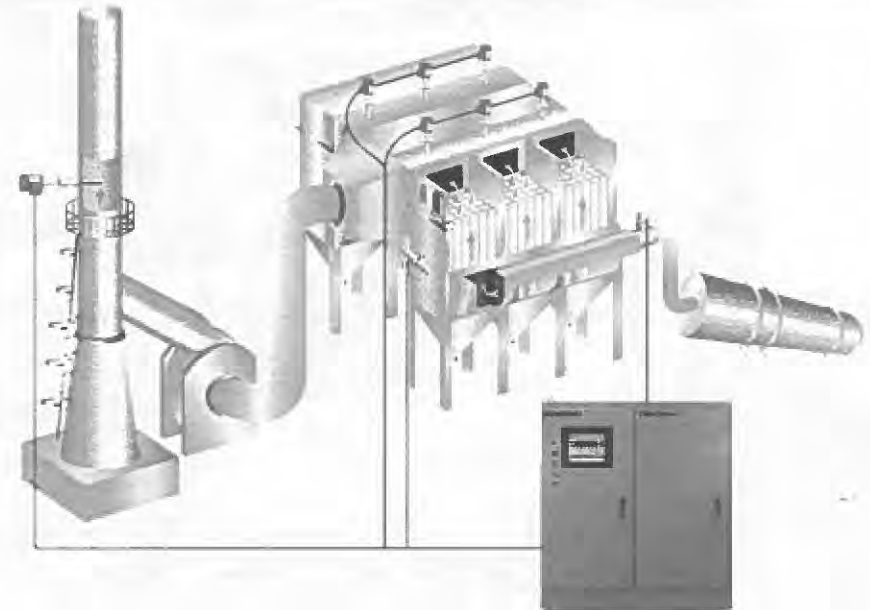
- Previously Using Opacity
  - Complex & Costly
  - High Maintenance
    - Cleaning 1-2x/month
    - Critical lens alignment
    - Confusing Calibrations
- Competitive Market
  - Visual Leak Inspections
    - Unexpected Downtime
    - Employee Exposure to PM



# Buzzi Unicem, USA

## Solution

- Install Engineered B-PAC System
  - Integrates Particulate Monitoring
  - Automates Process
    - DP
    - Dampers
    - Hopper Level
    - Temperature
    - Air Flow
    - Fan Amps

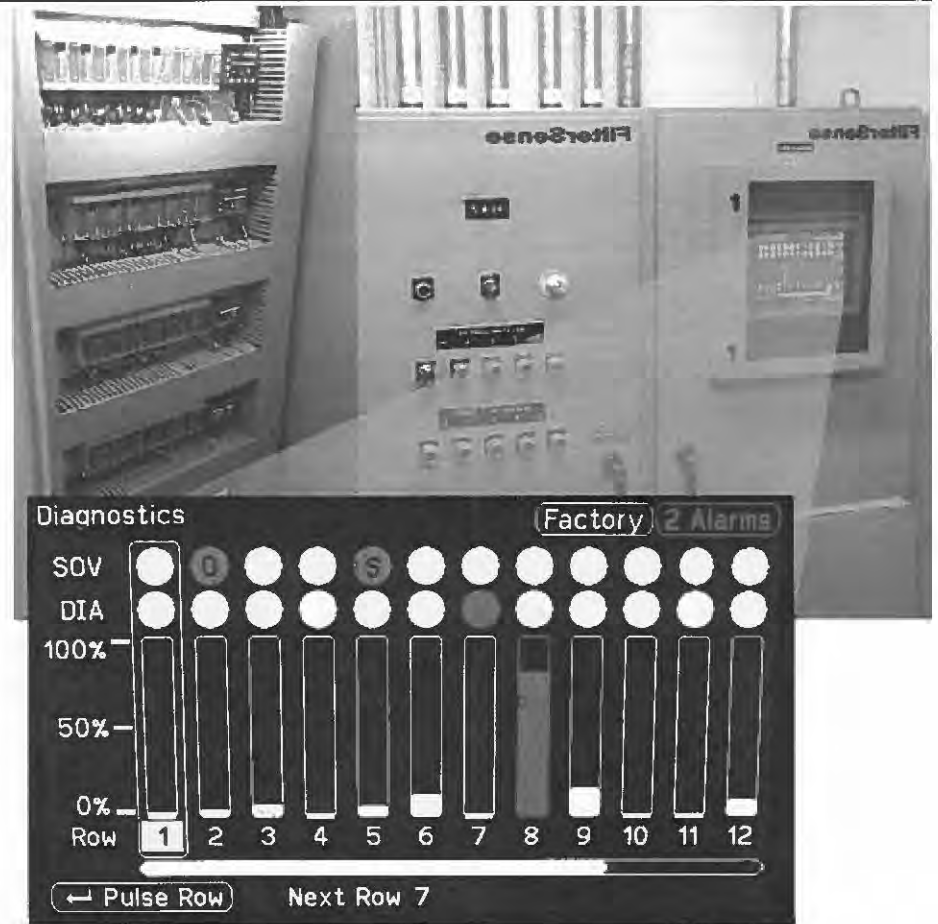


I.D.	Product
1	B-PAC Master Controller and FilterWARE HMI Software
2	B-PAC Compartment Controllers
3	Non-Clogging Differential Pressure Transmitters
4	DynaCHARGE Compartment Leak Detectors
5	DynaCHARGE Stack Particulate Monitor
6	Aux Controls/Sensors (Dampers, Airlocks, Level, Temp, etc.)

# Buzzi Unicem, USA

## Plant Benefits:

- US-EPA NESHAP Compliance
  - Achieved CPMS
  - Pre-Visible Leak Detection
  - Automated QA Self-Tests
    - Zero, Span, PM response
    - EPA-454/R-98-015
    - ASTM D7392
- Automated EPA Reporting



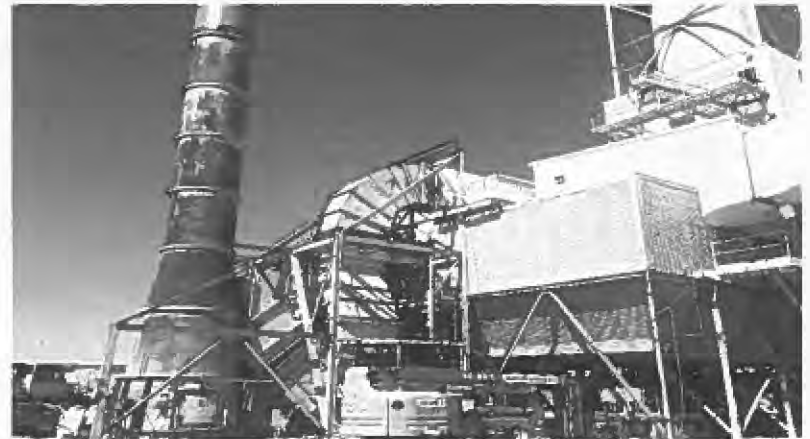
# Buzzi Unicem, USA

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## Plant Benefits:

### Improved Operation

- Actionable Diagnostics
  - Leak Detection/Location
    - Reduced Emissions
    - Decreased Downtime
    - Actionable Diagnostics
  - Intelligent DP Control
    - Maintains Process at Ideal Conditions
  - Reduces Personnel Exposure to Confined Space & Hazardous PM



# BASF, Savannah, GA

## Kaolin Catalyst Plant

- Reliability Engineers Study Increased Costs & Safety Risks Assoc. w/ Baghouses



Particulate Monitoring and Control Solutions

**FilterSense**

# BASF, Savannah, GA

---

## Challenge

- Increased Costs & Safety Risks
  - 1 Baghouse = \$85K maintenance cost
  - 9 Emergency Outages due to Visible Emissions (216 Hours)
  - Employee Exposure to Hazardous PM
  - Process Upset Conditions
    - Causing Damage to Equipment
    - Decreasing Production
    - Increasing Costs

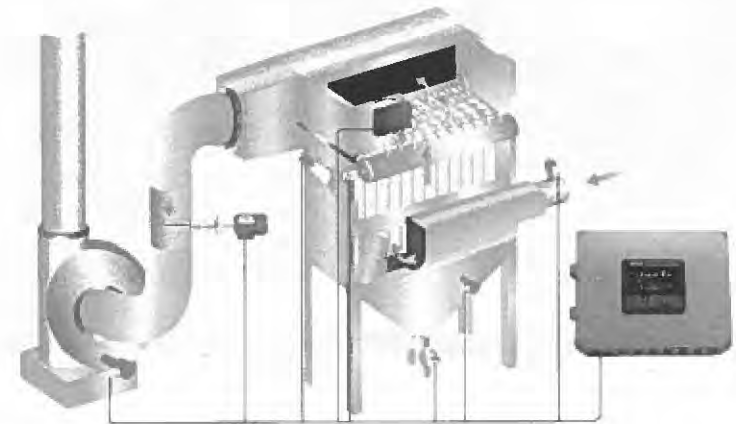
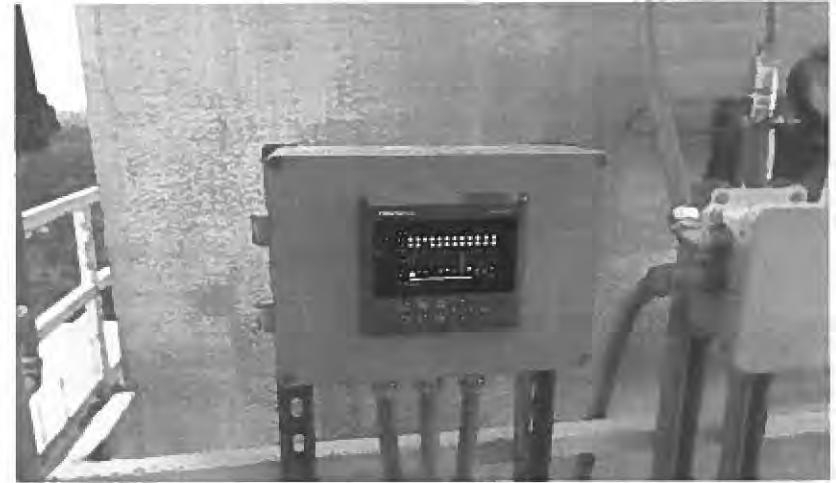


# BASF, Savannah, GA

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## Solution

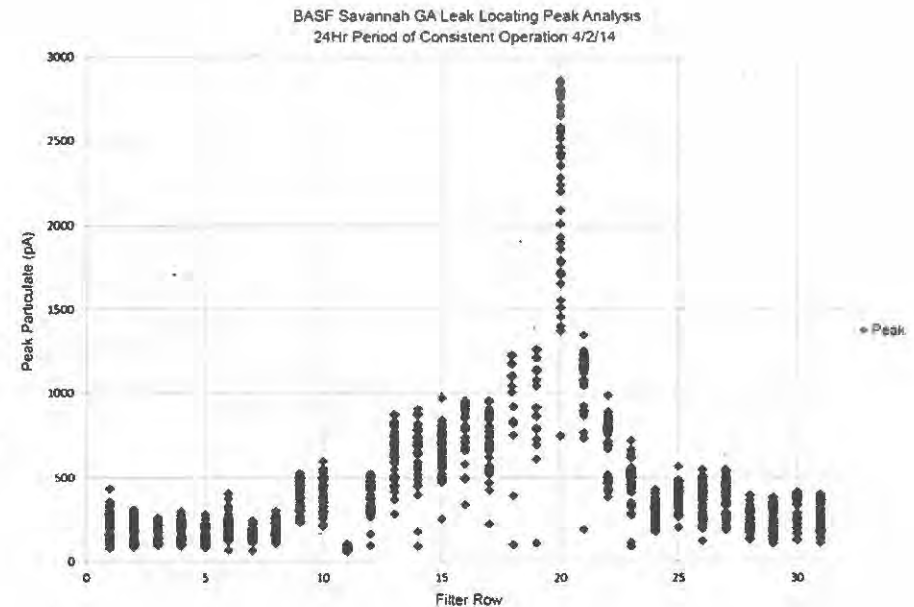
- Installation of B-PAC System
  - Automate Baghouse Processes
  - Integrated Particulate Monitoring
  - Intelligent DP Cleaning
  - Actionable Diagnostics



# BASF, Savannah, GA

## Plant Benefits:

- US-EPA MACT/NESHAP Compliance
  - No Visible Emissions Since Installation
  - Reduced Employee Exposure
  - Eliminated Visual Inspections
  - Access to Pre-Visible Leak Diagnostics





# BASF, Savannah, GA

## Plant Benefits:

### Improved Operation

- Actionable Diagnostics
  - Pre-Visible Leak Detection
    - Reduced Emissions
    - Decreased Downtime
    - Actionable Diagnostics
  - Intelligent DP Control
    - Maintains Process at Ideal Conditions
  - Reduces Personnel Exposure to Confined Space & Hazardous PM

	Pulse Timer Card	B-PAC IntelliPULSE
Pulse Rate	1,200/Hour	120/Hour
Pulse Frequency	5 Seconds	50 Seconds
Pulse Pressure	100 PSI	75 PSI
Visual Emissions	9	0
Compressed Air Cost	\$12,656	\$316
Annual Maintenance Cost	\$46,000	\$2,000

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# Thank You

800 Cummings Center, 355W  
Beverly, MA 01915 USA

Tel: 978-927-4304

Fax: 978-927-4329

[www.filtersense.com](http://www.filtersense.com)  
[info@filtersense.com](mailto:info@filtersense.com)

**FilterSense**



**Capture System,  
Baghouse Leak Detection,  
& Control Device  
Operation & Maintenance (O&M)  
Preventive Maintenance Plan (PMP)  
Scrap Certification & Selection Plan  
Startup Shutdown & Malfunction Abatement (SSM)  
Compliance Assurance Monitoring (CAM)  
Mold Light-off  
Plans**

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## ***Asama Coldwater Manufacturing, Inc.***

### **Compliance Assurance Monitoring (CAM) Plan Capture System, Baghouse Leak Detection & Control Devices**

#### **Operation & Maintenance Plan(O&M)**

#### **Preventive Maintenance Plan (PMP)**

#### **Scrap Certification & Selection Plan Mold Light-off Plan**

### **Startup Shutdown & Malfunction Abatement (SSM) Plan**

## **1.0 INTRODUCTION**

Asama Coldwater Manufacturing (ACM) operates an iron foundry located at 180 Asama Parkway, Coldwater, Michigan. In 2007, a new expansion foundry was constructed adjacent to the existing foundry. The construction of the new expansion foundry resulted in the facility becoming a major source of hazardous air pollutants (HAPS), and therefore subject to the applicable National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries, codified as 40 CFR Part 63 Subpart EEEEE. The facility became a major source on December 17, 2007 when the new foundry commenced startup.

These plans document certain responsibilities and procedures for the operation; maintenance and monitoring of air emission control equipment, and are consistent with malfunction planning requirements of the MACT Standard for Iron and Steel Foundries (40 CFR 63 §EEEEEE) and Compliance Assurance Monitoring, or “CAM” requirements (40 CFR 64).

Specifically, 40 CFR 63.7710(b) requires that the owner "prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device for an emission source subject to an emission limit in Section 63.7690(a)". The operation and maintenance (O&M) plan for the new foundry was submitted in 2007. The O&M plan for the existing foundry was submitted in 2010. These plans have been updated and revised as needed.

Please note that this combined plan document also lists and provides information for the proper operation and maintenance of collection equipment as required by Michigan Rule 336.1911. There are overlapping requirements, so if a common requirement is addressed for one regulation, it will not be addressed for the other requirements. For example, the Rule 911 requirement for a preventative maintenance plan (“PMP”) is already addressed as required by 63.7710 of MACT, so there will be no separate PMP listed here.

## 2.0 PROCESS DESCRIPTION

The following summary table is being used to provide the process descriptions for the emission units identified in this composite plan. This table has been submitted as part of the ROP renewal application in 2019. As part of this renewal, an update to emission unit IDs was requested to help simplify identification nomenclature which was found to be confusing over the years and link emission units to each respective foundry. Once the permit is finalized, the table will be updated.

UPDATED EMISSION UNIT SUMMARY TABLE

<b>Emission Unit ID</b>	<b>Emission Unit Description (Including Process Equipment &amp; Control Device(s))</b>	<b>Installation Date/ Modification Date</b>	<b>Flexible Group ID</b>
<del>EUMPCC-S1</del> EU-GFMELTPOUR	George Fisher Foundry- Metal melting, pouring, and casting cooling process equipment with two electric induction furnaces with a combined daily average melting capacity of 8 tons per hour. Emissions from these processes are controlled by a 49,000 dscfm baghouse (BH# GF608). Previous EU ID - EUMPCC-S1	06/17/97 02/25/04	<del>FGFOUNDRY-S1</del> FG-GFFOUNDRY <del>FGCAM_UNITS-S1</del> FG-CAMUNITS
<del>EU-SANDSYSTEM-S1</del> EU-GFSANDSYS	George Fisher Foundry- Mold making, shakeout, and sand processing equipment. Emissions from these processes are controlled by a 66,000 dscfm baghouse (BH# GF610). Previous EU ID - EU-SANDSYSTEM-S1	06/17/97 02/25/04	<del>FGFOUNDRY-S1</del> FG-GFFOUNDRY <del>FGCAM_UNITS-S1</del> FG-CAMUNITS
<del>EUSHOTBLAST-S1</del> EU-SHOTBLAST	A shotblast machine with a mechanical pre-cleaner followed by a 7,500 scfm baghouse (BH# 603) that vents outside on or after August 14, 2006. Previous EU ID - EUSHOTBLAST-S1	06/17/97 08/14/06	NA
<del>EU-MP-S1</del> EU-DSMELTPOUR	DISA Foundry- <del>Consists of</del> Two electric induction melting furnaces with an 11 ton holding capacity each, and a monorail pouring station with three ladles. Emissions from melting and pouring processes are controlled by associated hoods, enclosures, ductwork, and a 37,500 acfm baghouse (BH# DS602). Previous EU ID - EU-MP-S1	12/01/07 NA	<del>FG-NEWFOUNDRY-S1</del> FG-DSFOUNDRY

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-MCS-S1 EU-DSCOOLSHAK	DISA Foundry - <del>Consists of the</del> Automated mold cooling conveyors and automated sand shakeout lines, including a flat deck shakeout system. Emissions from these processes are controlled by associated hoods, enclosures, ductwork, a baghouse (Baghouse #DS606), and a regenerative thermal oxidizer. The exhaust gas flow from this unit is approximately 61,200 acfm. Previous EU ID - EU-MCS-S1	01/01/07 06/20/13	<del>FG-NEWFOUNDRY-S1</del> FG-DSFOUNDRY <del>FGCAM_UNITS-S1</del> FG-CAMUNITS
EU-SS-S1 EU-DSMOLDSAND	DISA Foundry - <del>Consists of the</del> Molding machine and related sand handling equipment. Emissions from the mold making process are controlled by associated hoods, enclosures, ductwork, and a 56,900 acfm baghouse (BH #DS608). Previous EU ID - EU-SS-S1	12/01/07	<del>FG-NEWFOUNDRY-S1</del> FG-DSFOUNDRY <del>FGCAM_UNITS-S1</del> FG-CAMUNITS
EU-CCFBACK-S1 EU-DSCOOLSHOT	DISA Foundry - <del>Consists of the</del> The back section of casting cooling conveyors and a shot blast machine. Emissions from this emission unit are controlled by associated hoods, enclosures, ductwork, and a 65,360 acfm baghouse (BH #DS604). Previous EU ID - EU-CCFBACK-S1	12/01/07	<del>FG-NEWFOUNDRY-S1</del> FG-DSFOUNDRY <del>FGCAM_UNITS-S1</del> FG-CAMUNITS
EUCOLDCLEANER-S1 EU-COLDCLEANER	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 281(h), or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979. Previous EU ID - EUCOLDCLEANER-S1	06/17/97 NA	FG-COLDCLEANERS-S1
EU-CONVEYOR-S1 EU-CONVEYOR	DISA Foundry - Casting cooling vibratory conveyor section that is covered and ventilated to a 28,000 dscfm baghouse (BH #DS604). Previous EU ID - EU-CONVEYOR	01/01/04 NA	FG-RULE290-S1

<b>Emission Unit ID</b>	<b>Emission Unit Description (Including Process Equipment &amp; Control Device(s))</b>	<b>Installation Date/ Modification Date</b>	<b>Flexible Group ID</b>
EU-EMERGEN1-S1	DISA Foundry - Diesel fired emergency power generator. Previous EU ID – no change	01/07/07	NA
EU-EMERGEN2-S1	Paint Line - Natural gas fired emergency power generator. Previous EU ID – no change	01/08/96	NA
<del>EULine 1-S1</del> EU-PAINTLINE1	The GEOMET paint line systems consisting of a mixing room, a paint spray booth equipped with HVLP applicators and dry filter overspray control, and an induction cure process consisting of pre-curing and final cure steps for coating of metallic surfaces. Previous EU ID - EULine 1-S1	12/22/11	<del>FG-COATING-S1,</del> <del>FG-MACTMMMM-S1</del> FG-MACTMMMM
<del>EULine 2-S1</del> EU-PAINTLINE2	The GEOMET paint line systems consisting of a mixing room, a paint spray booth equipped with HVLP applicators and dry filter overspray control, and an induction cure process consisting of pre-curing and final cure steps for coating of metallic surfaces. Previous EU ID - EULine 2-S1	03/25/14	<del>FG-COATING-S1,</del> <del>FG-MACTMMMM-S1</del> FG-MACTMMMM
<del>EULine 3-S1</del> EU-PAINTLINE3	The GEOMET paint line systems consisting of a mixing room, a paint spray booth equipped with HVLP applicators and dry filter overspray control, and an induction cure process consisting of pre-curing and final cure steps for coating of metallic surfaces. Previous EU ID - EULine 3-S1	To Be Determined	<del>FG-COATING-S1,</del> <del>FG-MACTMMMM-S1</del> FG-MACTMMMM

<b>Emission Unit ID</b>	<b>Emission Unit Description (Process Equipment &amp; Control Devices)</b>	<b>Installation Date / Modification Date</b>	<b>Flexible Group ID</b>
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EUGRINDER1	Reichmann grinder for automatic deburring of round parts including brake discs, clutch plates and other miscellaneous metal parts. The grinder is exhausted to a Waltz-Holtz Duster 70,000 ACFM reverse air fabric filter collector. The fabric filter collector will be used for future in plant environment control.	With Permit Approval*	FGGRINDERS
EUGRINDER2	Reichmann grinder for automatic deburring of round parts including brake discs, clutch plates and other miscellaneous metal parts. The grinder is exhausted to a Waltz-Holtz Duster 70,000 ACFM reverse air fabric filter collector. The fabric filter collector will be used for future in plant environment control.	With Permit Approval*	FGGRINDERS

### FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

<b>Flexible Group ID</b>	<b>Flexible Group Description</b>	<b>Associated Emission Unit IDs</b>
<del>FG-FOUNDRY-S1</del> FG-GFFOUNDRY	Flexible group that includes two emissions units. Previous FG ID - FG-FOUNDRY-S1	<del>EUMPCC-S1</del> EU-GFMELTPOUR <del>EUSANDSYSTEM-S1</del> EU-GFSANDSYS
FG-COLDCLEANERS-S1	Any cold cleaner that is grandfathered or exempt from Rule 201, pursuant to Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979. Previous FG ID – no change	<del>EUCOLDCLEANER-S1</del> EU-COLDCLEANER
FG-RULE290-S1	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201, pursuant to Rules 278 and 290. Previous FG ID – no change	<del>EUCONVEYOR-S1</del> EU-CONVEYOR

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
<del>FGCAM_UNITS-S1</del> FG-CAMUNITS	The equipment in this flexible group is subject to Compliance Assurance Monitoring, 40 CFR 64.6. Previous FG ID - FGCAM_UNITS-S1	<del>EUMPCCS1</del> EU-GFMELTP <del>EUSANDSYSTEM-S1</del> EU-GFSANDSYS <del>EU-MCS-S1</del> EU-DSCOOOLSHAK <del>EU-SS-S1</del> EU-DSMOLDSAND <del>EU-CCFBACK-S1</del> EU-DSCOOOLSHOT
<del>FG-NEWFOUNDRY-S1</del> FG-DSFOUNDRY	All emission units of the new expansion foundry. Previous FG ID - FG-NEWFOUNDRY-S1	<del>EU-MP-S1</del> EU-DSMELTPOUR <del>EU-MCS-S1</del> EU-DSCOOOLSHAK <del>EU-SS-S1</del> EU-DSMOLDSAND <del>EU-CCFBACK-S1</del> EU-DSCOOOLSHOT
<del>FG-COATINGS-S1</del> FG-PAINTLINES	Three GEOMET paint line systems each consisting of a mixing room, a paint spray booth equipped with HVLP applications and dry filter overspray control, and an induction cure process consisting of pre-curing and final cure steps for coating of metallic surfaces. Previous FG ID – FG-COATINGS	<del>EU-Line1-S1</del> EU-PAINTLINE1 <del>EU-Line2-S1</del> EU-PAINTLINE2 <del>EU-Line3-S1</del> EU-PAINTLINE
FG-SOURCE-S1	All metallic surface coating lines and all associated purge and cleanup operations at the stationary source. This includes any metallic surface coating line covered by this or any other general permit or any permit to install issued pursuant to Rule 201, and any metallic surface coating line exempt from the requirement to obtain a PTI pursuant to Rule 287 and/or Rule 290. Previous FG ID – no change	NA

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
<del>FG-MACTMMMM-S1</del> FG-MACTMMMM	Each new, reconstructed, and existing affected source described in 40 CFR 63.3881(a)(1), including the subcategories listed in 40 CFR, Part 63, Subpart MMMM, 40 CFR 63.3881(a)(2) through (6), meeting the applicability requirements of 40 CFR 63.3881(b), which is engaged in the surface coating of miscellaneous metal parts and products. The affected source includes the collection of all the items listed in 40 CFR 63.3882(b)(1) through (4). Surface coating is defined by 40 CFR 63.3881, as the application of coating to a substrate using, for example, spray guns or dip tanks. Surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage if they are directly related to the application of the coating. The 40 CFR, Part 63, Subpart MMMM, does not apply to surface coating or a coating operation that meets any of the criteria of 40 CFR 63.3881(c)(1) through (17).  Previous FG ID - FG-MACT MMMM-S1	<del>EULine1-S1</del> EU-PAINTLINE1 <del>EULine2-S1</del> EU-COATLINE2 <del>EULine3-S1</del> EU-COATLINE3

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGGRINDERS	Two Reichmann grinders for automatic deburring of round parts including brake discs, clutch plates and other miscellaneous metal parts. The grinders are exhausted to a Waltz-Holtz Duster 70,000 ACFM reverse air fabric filter collector. The fabric filter collector will be used for future in plant environment control.	EUGRINDER1 EUGRINDER2

## 2.1 Existing Foundry (George Fischer "GF")

The particulate emissions from the processes in the existing foundry process are controlled by two baghouses:

- The melting, pouring and casting cooling equipment
- The mold making, shakeout and sand processing equipment

### 2.1.1 Melting, Pouring and Casting Cooling Process Equipment (EUMPCC)

The metal melting, pouring, and casting process, identified as EUMPCC, includes two (2) electric induction furnaces with a nominal combined daily average melting capacity of 8 tons per hour. The

emissions from the melting operations are captured with hoods over the furnaces and routed to a baghouse (SV-MPCC).

The molten metal from the furnaces is poured into ladles and transferred to a pouring station via a monorail system. At the pouring station, hot iron is poured into sand molds. A hood is located at the pouring station to collect emissions generated during the pouring process. Emissions from the pouring station collection hood are routed through the SV-MPCC baghouse.

Once the molten metal has been transferred into the sand molds, the metal will immediately begin to cool and harden. Emissions generated during mold cooling are captured by a collection hood and routed to the SV-MPCC baghouse.

### **2.1.2 Mold Making, Shakeout and Sand Processing Equipment (EUSANDSYSTEM)**

After the appropriate cooling time, the sand mold/metal combinations enter a shakeout system where the sand is separated from the metal castings. This system first includes vibrating conveyors that are used to loosen the metal castings from the sand molds. After the conveyors, the sand molds and castings will enter a vibrating drum.

Following the vibrating drum, the loose sand and sprues and castings pass through a sand separator, where the sprues and castings are removed from the used sand. The sprues are then transferred back to the common metal holding area for re-melting, while the castings proceed to the cleaning and finishing operations.

The sand is separated from sprues and castings are sent to the sand system for recovery and re-use in the mold production process. The sand from the shakeout process are first screened and cleaned. After the screening process, the sand is then routed to a sand-cooling unit that uses air to cool the sand prior to re-mixing in a sand muller to form a mixture with seacoal that is used to construct new sand molds.

The conveyors that feed the shakeout process, the vibrating drum, and the downstream sand system equipment have associated hoods and enclosures designed to capture the process emissions. The emissions are then routed to the SVSS baghouse.

## **2.2 New Foundry (DISA)**

The particulate emissions from the processes in the “new” foundry process are controlled by four baghouses. The automated cooling and shakeout line is also controlled by a regenerative thermal oxidizer (RTO) downstream of the EU-MCS baghouse to provide additional control of volatile organic hazardous air pollutant (VOHAP) emissions:

- The melting and pouring equipment
- The front portion of the casting cooling line and sand shakeout equipment
- The sand mold making and sand processing equipment
- The back portion of the casting cooling line and finishing equipment

### 2.2.1 Metal Processing and Pouring (EU-MP)

The two (2) Inductotherm electric induction furnaces are each rated at a holding capacity of about 11 tons (equivalent to 10 metric tons). Each melting furnace is capable of achieving a maximum melt rate of approximately 9 tons per hour. However, the nominal combined melt rate for the furnaces, based on the daily average capacity of downstream equipment, is 16.5 tons per hour.

The emissions from the furnace melting operations will be captured and routed to the dedicated MP baghouse (SV-MP).

The molten metal from the furnaces is transferred to ladles and to a single pouring station via a monorail system. At the pouring station, hot iron is poured into vertically-parted green sand molds. A side draft collection hood is located at the pouring station to collect emissions generated during the pouring process. Emissions from the pouring station collection hood will be routed to the MP baghouse (SV-MP).

### 2.2.2 Automated Mold Cooling and Sand Shakeout System (EU-MCS)

Once inside the sand molds, the metal will immediately begin to cool and harden. Immediately following the pouring station, the sand molds enter the "mold cooling" section of the automatic mold conveyer. The mold cooling section of the conveyer is enclosed and emissions generated are captured by several cooling hoods and routed to the MCS baghouse and RTO (SV-MCS). The TRITON-55.95 RTO was installed downstream of the EU-MCS baghouse on July 1, 2013.

. The metal and sand molds remain together while traveling down the conveyer until they are sufficiently cooled and hardened. After the appropriate cooling time, the sand mold/metal combinations enter a flat deck shakeout system. Similar to the mold cooling conveyer, the flat deck shakeout system is enclosed and emissions generated in this process are collected using fan assisted draft hoods and are routed to the MCS baghouse and RTO. In addition, hot sand from the parts on the shakeout system falls through to the "hot end" return sand conveyer which directs the sand back towards the storage silo and mold making process area. There are several emissions pickup points along the "hot end" of the return sand conveyer system that are considered part of the automated shakeout process and consequently considered part of the EU-MCS emission unit and routed to the MCS baghouse and then to the RTO (SV-MCS).

The used sand and sprue/castings are separated from the sand molds once they leave the flat deck shakeout system. After exiting the flat deck shakeout system, the sprue/castings enter the front section of the castings cooling conveyer system. This conveyer system is equipped with several draft hoods.

The first exhaust pickup hood is used as recycled air, which is sent to and reused by a cooling machine (heat exchanger) that has no external exhaust. The next exhaust hoods associated with the castings cooling operation are collected and routed to the MCS baghouse and RTO (SV-MCS).

All emissions associated with the equipment that are subject to the NESHAP VOC limitation (20 ppmv), which comprises the EU-MCS emission unit only, are collected and routed to the MCS baghouse and RTO (SV-MCS).

### 2.2.3 Sand Mold Making and Sand System (EU-SS)

The equipment associated with green sand mold production includes the molding machine and other related equipment. Emissions from the mold production process are captured and routed to the SS baghouse (SV-SS) for control of PM.

Emissions from the "cool end" of the sand return system are also routed to the SS baghouse. Return sand is collected from all areas of the shakeout system, including the sand separator, which separates the sand from the metal parts and sprue, and from the Didion. The "hot end" of the return sand system is exhausted to the MCS baghouse, whereas the "cool end" is routed to the SS baghouse. Once the sand is returned to the processing area, it is screened and reused.

The exhaust gases collected from the sand system equipment (i.e. "cool end" sand return conveyor belts, bucket elevators, rotary screen, sand cooler, and sand muller) are routed to the SS baghouse.

### 2.2.4 Castings Cooling and Finishing (EU-CCFBACK)

After going through the front section of the casting cooling conveyor system, the metal castings continue through additional cooling areas (EU-CCFBACK) of the conveyer system, and additional exhaust hoods continue to collect emissions from the castings (i.e. residual sand) as the castings progress towards the finishing operations. All the exhaust hoods associated with the casting cooling line and finishing operations that are downstream of the above mentioned exhaust hoods are collectively routed to the (SV-CCF2) baghouse. This includes the exhaust from the shot blast machine, which uses metallic shot to clean the castings (i.e. remove any residual sand and any surface defects/spurs).

## 2.3 Miscellaneous Processes

There are multiple processes in the plant that utilized for finishing the castings from both the George Fisher and DISA Foundries.

### 2.3.1 Grinders

A new process was installed in 2019. This includes two totally enclosed Reichmann grinders for automatic deburring of round parts including brake discs, clutch plates and other miscellaneous metal parts. The grinders are exhausted to a Waltz-Holtz Dustar 70,000 ACFM reverse air fabric filter collector. The dust collector is oversized for this process but will be used to address silica hot spots if needed in the future for in plant environment control.

### 2.3.2 – Paint Lines

Three GEOMET paint line systems each consisting of a mixing room, a paint spray booth equipped with HVLP applications and dry filter overspray control, and an induction cure process consisting of pre-curing and final cure steps for coating of metallic surfaces. Please note: At this time only two lines have been installed.

### 2.3.3 Cold Cleaners

Any cold cleaner that is grandfathered or exempt from Rule 201, pursuant to Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

### 2.3.4 Rule 290 Sources

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201, pursuant to Rules 278 and 290. A sand conveyor is included in this list of sources at this time.

## 3.0 COMPLIANCE ASSURANCE MONITORING/ POLLUTION CONTROL EQUIPMENT DESCRIPTION

ACM believes that pollution control equipment for their emissions units will adequately remove pollution from the exhaust gases prior to discharge to the ambient air on a continuous basis. ACM has determined that sufficient monitoring of baghouse control equipment for controlling particulate is being performed to satisfy the requirement of the CAM regulations of 40 CFR Part 64 for emission units in the two foundries; EUSANDSYSTEM, EU-MCS, EU-CCFBACK, and EU-SS. The furnace emission units in both foundries EU-MP and EU-MPCC are subject to the Subpart EEEEE MACT standards for particulate. They are being monitored in a similar fashion as the emission units subject to CAM.

ACM has also installed an RTO for additional control of VOC emissions from EU-MCS in the DISA Foundry in order to meet the VOHAP limit of 20 parts per million by volume (ppmv) as specified in 40 CFR Part 63, Subpart EEEEE. The baghouse on EU-MCS is monitored under CAM, but the VOC emissions from the emission unit are monitored under MACT. No other emission units have enough uncontrolled VOC emissions to meet the criteria to be subject to CAM.

The required monitoring to document compliance is described below. This section outlines the pollutant limits and pollution control equipment added if necessary, for the existing foundry (George Fisher "GF"); and the new foundry (New Foundry "DISA") and miscellaneous sources; including background, applicable regulations, control technology, and monitoring approaches.

ACM's dust collectors are pulse-jet baghouses. The cleaning cycle (pulse jet) is initiated whenever the differential pressure is above a certain set point. The dislodged dust falls from the filter bag into the compartment's hopper where it drops into a portable container. The performance of the dust conveying system is critical to proper and efficient operation of the entire dust collector. High dust levels in the hoppers would allow dust re-entrainment from the hoppers back into the filter bags. This would result in premature filter bag failure and high-pressure drops. The function of the cleaning cycle is to control the pressure drop across the filter bags. In the automatic mode, differential pressure activates the cleaning cycle. When the differential pressure reaches a pre-set value, the cycle starts and continues until the compartment has been cleaned. If a high differential pressure still exists after all compartments have been cleaned, a second complete cleaning cycle is initiated. In addition to the automatic mode, a manual mode of cleaning can be used. The manual mode can be used for troubleshooting a compartment or cleaning a compartment that was not adequately cleaned in the automatic mode.

As discussed in this document, operating parameters have been selected to be monitored to ensure peak performance of the RTO and associated equipment for additional control of VOC emissions from EU-MCS in the DISA Foundry. Some of these parameter monitoring is covered in the O&M Section.

### 3.1 Existing Foundry (George Fischer “GF”)

#### **Background**

A fabric filter baghouse is utilized to control particulate and metal HAP emissions from EUMPCC and EUSANDSYSTEM. The design specifications for the baghouses on these emission units are provided in Table 3.1-1. The permit limits for all pollutants on these emission units are provided in Tables 3.1-2 through 3.1-5. These tables include the Potential to Emit for each pollutant as well as the most recent compliance stack test results and the determination if each emission unit is subject to CAM.

The monitoring approach for baghouses is described in Table 3.1-6. The particulate and metal HAPS are limited by NESHAPS from the furnaces in EUMPCC. Based on this limit and the required monitoring to determine compliance, it is believed this emission unit is not subject to CAM. The particulate from the furnaces is also regulated by the state for both emission units. The EUSandsystem would be subject to CAM because it would be a major source if it were uncontrolled based on AP-42 emission factor of 6 pounds of PM10 uncontrolled per 48,000 tons metal (GF Foundry melt limit) per year.

Both emission units also have limits for carbon monoxide (CO) and volatile organic compounds (VOC) based on state regulations however there are no add on pollution control equipment for these pollutants. Neither of these emission units have the potential to emit over major source levels using 7872 hours per year (GF Foundry operational limit), uncontrolled so therefore are not subject to CAM

Both units are also subject to opacity limits from stacks under state regulations. The EUMPCC is limited to fugitive visible emission from the structure under federal regulations. The continued correct operation of the baghouses will allow the opacity to remain in compliance. The proper operation of the fan drawing the correct amount of air into the baghouses from the hoods over the equipment in these emission units will allow the plant to demonstrate compliance with the MACT requirement to have less than 20% visible emissions from the structure housing EUMPCC.

#### **Regulations**

MI-ROP-N5814-2015 – Current Active ROP

#### **Control Technology**

Particulate emissions from the furnaces and sand system are collected via hood, enclosure, and duct work prior to going into the fabric filter baghouses. The clean, filtered gases pass through the induced draft fan and are discharged through the exhaust stack. The baghouses and exhaust fan system also control opacity and visible emissions from the structure. There are no controls for CO or VOCS on these emission units.



**Table 3.1-1 EUMPCC and SANDSYSTEM Particulate Control  
Baghouse Control - Design Specifications**

<b>Parameter</b>	<b>MPCC</b>	<b>SANDSYSTEM</b>
MACT Limit	0.005 gr/dscf of PM or 2.1 pph of PM	NA
State Limit	0.005 gr/dscf or 2.1 pph of PM	0.005 gr/dscf or 2.8 pph of PM
Compliance Stack Test 5/2015	0.044 pph	0.138 pph
Design Volumetric Flow (acfm)	43,050	66,000
Contaminant	Particulate	Particulate
Cleaning Type	Pulse Jet	Pulse Jet
Design Temperature	100° F	100° F
Gas Temp. Range	Ambient to 150° F	Ambient to 150° F
Design Pressure (in. WG)	4" 5"	4" 5"
Minimum Pressure Drop	1.5"	1.5"
Maximum Pressure Drop	10"	10"
Number of Cells	2	2
Filter Bags per Cell	645	645
Filter Cloth Area per Compartment	10,131 ft <sup>2</sup>	10,131 ft <sup>2</sup>
Outlet Particulate Loading (gr/dscf)	0.005	0.005
Bag Leak Detection System	Yes	Yes
Pressure Drop Indicator	Yes	Yes
Fan Amperage Gauge	Yes	Yes
PTE – 7872 hrs * pph (stack test) with Control	0.17 TPY (with control)	0.54 TPY (with control) 210 TPY (without control)
Subject to CAM?	No	Yes
Subject to MACT Limit	Yes	No

**Table 3.1-2 EUMPCC and SANDSYSTEM Carbon Monoxide Control  
No Air Pollution Control Equipment**

<b>Parameter</b>	<b>MPCC</b>	<b>SANDSYSTEM</b>
MACT Limit	NA	NA
State Limit	57.5 pph CO	7.5 pph CO
Compliance Stack Test 5/2015	14.12 pph CO	4.64 pph CO
PTE – 7872 hours * pph (stack test)	55.58 TPY CO	12.67 TPY CO
Subject to CAM?	No	No

**Table 3.1-3 EUMPCC and SANDSYSTEM Volatile Organic Compounds  
No Air Pollution Control Equipment**

<b>Parameter</b>	<b>MPCC</b>	<b>SANDSYSTEM</b>
MACT Limit	NA	NA
State Limit	10.0 pph VOC	6.0 pph VOC
Compliance Stack Test-5/2015	4.64 pph VOC	2.33 pph VOC
PTE – 7872 hours * pph (stack test)	18.26 TPY VOC	9.17 TPY VOC
Subject to CAM?	No	No
Subject to MACT?	No	No

**Table 3.1-4 EUMPCC and SANDSYSTEM Opacity - (Baghouse control)**

<b>Parameter</b>	<b>MPCC</b>	<b>SANDSYSTEM</b>
MACT Limit	NA	NA
State Limit	10%	5%
Compliance Stack Test-5/2015	Passed Method 9	Passed Method 9
PTE – 7872 hours * pph (stack test)	NA	NA
Subject to CAM?	Adequate control of PM will control opacity	Adequate control of PM will control opacity
Subject to MACT?	No	No

**Table 3.1-5 EUMPCC and SANDSYSTEM Visible Emissions /Structure - (Baghouse Fan)**

<b>Parameter</b>	<b>MPCC</b>	<b>SANDSYSTEM</b>
MACT Limit	20% opacity (except for one 6-minute average per hour of not more than 27% opacity)	NA
State Limit	See Opacity	See Opacity
Compliance Stack Test-5/2015	Passed Method 9	Passed Method 9
PTE – 8760 hrs * pph	NA	NA
Subject to CAM?	Adequate control of exhaust fan will control fugitive emissions from structure	Adequate control of exhaust fan will control fugitive emissions from structure
Subject to MACT?	Yes	No

**Table 3.1-6 Monitoring Approach for PM - EUMPCC & SANDSYSTEM**

A. Indicators	
	<ul style="list-style-type: none"> <li>a. BAG LEAK DETECTOR in stack/ Triboelectric System with monitor and alarm</li> <li>b. Photohelic Gauges</li> <li>c. Fan Amperage Gauges</li> </ul> <p>Visible Emission Stack Inspection is performed during daylight hours and documented</p>
B. Indicator Range	
	<p>Normal operating range is 10pA to 60pA for the bag leak detector. The alarm will trigger outside the normal operating ranges. Range set by particle detector vendor.</p> <p>Photohelic set point ranges are 1.5" to 10" based on baghouse vendor settings  Normal range is between 2" and 5" set by maintenance department.  Staff required to notify EHS staff if &gt;8"  Note: Photohelic gauges serve as indicators of bag condition and lifespan and potential blinding or plugging.</p> <p>Fan amperage range based on proper fan operation (range 140-200 amps) and exhaust system design.</p>
C. Performance Criteria	
i. Data Representative	a. The data is collected at the emission point. The probe is located inside the baghouse exhaust duct. The Triboelectric signal is shown on the data screen and recorded. The bag leak detection system equipment is inspected each shift and documented on a PM check sheet.
ii. Verification of Operational Status	b. The bag leak detection system (BLDS) includes an inspection against the Fan Motor Amperage and Damper Position Visual-Alarm.
iii. QA/QC Practices	c. An alarm function test will be performed and recorded on the daily PM inspection Sheet. d. The Triboelectric probe will be inspected every 3 months in accordance with section 4.3.4
iv. Monitoring Frequency	e. The Triboelectric signal is continuously displayed for monitoring f. EHS will be notified immediately when an alarm occurs for investigation and or repair. The BLDS equipment is inspected and PM is conducted each month and documented. The BLDS inspection reports are reviewed by the EHS Engineer.
v. Data Collection Procedures	g. <ul style="list-style-type: none"> <li>I. The reason for alarm will be recorded on the daily PM inspection sheet.</li> <li>II. A start and end time of the alarm will be recorded against the purpose of the alarm</li> </ul>

	III. A visible emission inspection will be performed and recorded if outside conditions allow.
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### 3.2 New Foundry (DISA)

#### **Background**

Four (4) baghouses utilized to control particulate emissions from the DISA foundry equipment emission units, EU-MP, EU-MCS, EU-SS and EU-CCFBACK. Each of the four dust collectors is a continuous automatic, suction type baghouse manufactured by US Air Filtration, Inc. ACM also operates an RTO for further control of VOHAP emissions from EU-MCS.

The design specifications for the baghouses on these emission units are provided in Table 3.2-1. The permit limits based on state regulations or MACT for all pollutants for these emission units are provided in Tables 3.2-2 through 3.2-5. These tables include the Potential to Emit for each pollutant as well as the most recent compliance stack test results and the determination if each emission unit is subject to CAM or MACT.

The monitoring approach for baghouses is described in Table 3.2-5. The particulate and metal HAPS are limited by NESHAPS from the furnaces in EU-MP. Based on this limit and the required monitoring to determine compliance, it is believed this emission unit is not subject to CAM. The particulate from the furnaces is also regulated by the state. The other three emission units are subject to CAM because they would be a major sources for PM if they were operated without control based on removal of control equipment with an estimated overall capture and control of 99% for particulate.

The emission units EU-MP and EU-MCS both have limits for carbon monoxide (CO) and volatile organic compounds (VOC) and EU-SS has VOC limits along with particulate based on state regulations. EU-MCS has MACT limits and controls for VOC. There are no add on pollution control equipment for CO on any emission units. Neither of these emission units have the potential to emit over major source levels of CO, uncontrolled so therefore are not subject to CAM.

All emission units are subject to opacity limits as a flexible group from the structures housing the DISA foundry as per MACT regulations. The proper operation of the fans and exhaust systems drawing the correct amount of air into the baghouses from the hoods over the equipment in these emission units will allow the plant to demonstrate compliance with the MACT requirement to have less than 20% visible emissions from the buildings or structures.

#### **Regulations**

##### **MI-ROP-N5814-2015 – Current Active ROP**

Emission Limits:	PM-10	27.0 tpy	12 month rolling time period
Material Limit:	Metal	115,500 tpy	12 month rolling time period

### Control Technology - Baghouses

The design specifications for each baghouse and values for PM are provided in Table 3.2-1. One main induced draft (ID) fan provides the suction for moving the fume and dust-laden gases through each of the four control systems. Each fan is of the backward incline design. The Monitoring Approach for each baghouse is described in Table 3.2-6.

**Table 3.2-1 EUMP, EUMCS, EUSS and EUCCFBACK Particulate Control Baghouse Design Specifications**

Parameter	EU-MP Baghouse	EU-MCS Baghouse	EU-SS Baghouse	EU-CCFBACK Baghouse
MACT Limit	0.001 gr PM/dscf	NA	NA	NA
State Limit	PM10 – 0.30 pph	PM10 2.47 pph	PM10 2.30 pph	PM10 2.64 pph
Compliance Stack Tests 5/2015	PM10 – 0.117 pph	PM10 – 0.671 pph	PM10 - 0.283 pph	PM10 – 0.419 pph
Design Flow (ACFM)	37,500	61,200	56,900	65,360
Contaminant	Fume & Dust	Fume	Sand	Dust
Cleaning Type	Pulse Jet	Pulse Jet	Pulse Jet	Pulse Jet
Design Temp (°F)	200	100	100	100
Gas Temp Range	Ambient to 250 °F	Ambient to 150 °F	Ambient to 150 °F	Ambient to 150 °F
Design Pressure (in. WG)	4” to 5”	4” to 5”	4” to 5”	4” to 5”
Max Pressure Drop Across Baghouse (in. WG)	10	10	10	10
Min Pressure Drop Across Baghouse (in. WG)	1.5	1.5	1.5	1.5
Fan Amperage Range	130 – 170	125 – 165	120-145	135-165
Number of Cells	1	1	1	1
Filter Bags per Cell	645	645	645	645
Filter Cloth Area per Cell	10,131 ft <sup>2</sup>	10,131 ft <sup>2</sup>	10,131 ft <sup>2</sup>	10,131 ft <sup>2</sup>
Outlet Particulate Loading (gr/dscf)	0.001	0.005	0.005	0.005
Bag Leak Detection?	Yes	Yes	Yes	Yes
PTE – 8760 hours * pph (stack test)	0.51 TPY Controlled	293.9 TPY Uncontrolled*	123.9 TPY Uncontrolled*	183.52 TPY Uncontrolled*
Subject to CAM?	No	Yes	Yes	Yes
Subject to MACT?	Yes	No	No	No

\* = Uncontrolled value = stack test value /0.01 (for 99 % capture/control)

**Table 3.2-2 EUMP, EUMCS, EUSS and EUCCFBACK Carbon Monoxide Control  
No Air Pollution Control Equipment**

<b>Parameter</b>	<b>EU-MP Baghouse</b>	<b>EU-MCS Baghouse</b>	<b>EU-SS Baghouse</b>	<b>EU- CCFBACK Baghouse</b>
MACT Limit	NA	NA	NA	NA
State Limit	CO 44.55 pph	CO 62.70 pph	NA	NA
Compliance Stack Tests 5/2015	CO 6.97 pph	CO 23.05 pph	NA	NA
PTE – 8760 hours * pph (stack test)	CO 30.5 TPY	CO 101 TPY	NA	NA
Subject to CAM?	No	No * Portion of CO from RTO	NA	NA
Subject to MACT?	No	No	NA	NA

### **Control Technology – Regenerative Thermal Oxidizer**

ACM installed an RTO in order to meet the VOHAP limit of 20 ppmv from EU-MCS. The RTO is a TRITON-55.95 manufactured by Catalytic Products International (CPI).

Exhaust from EU-MCS is drawn into the RTO by a system booster fan and is directed into one (1) of two (2) regenerator columns where the exhaust stream is heated to 1,300 °F or more. The heated exhaust stream then exits the regenerator column and flows into the combustion chamber where oxidation of volatile organic compounds (VOCs) takes place. Oxidation of VOCs in the exhaust stream converts VOCs into carbon dioxide (CO<sub>2</sub>) and water vapor. The Even –Flo manifolds to the RTO have a small volume, and this is very important to ensure a high VOC destruction rate efficiency (DRE). The combusted VOCs are then routed to the other regenerator column for supplemental heating purposes.

The design of the RTO allows for continuous VOC destruction and fully automatic operation. It provides for very low burner heating demands and static pressures. The regenerator temperature profiles are continually analyzed, and valve timing is frequently adjusted to maximize the system's thermal rate efficiency. The RTO is also designed to have high operating reliability, therefore requiring nominal maintenance. The RTO is also equipped with a continuous emission monitoring system that monitors and records the VOC ppm emissions.

The equipment specifications for the RTO installed on EU-MCS are presented in Table 3.2-3 below.

**Table 3.2-3. RTO Equipment Specifications <sup>1</sup>**

Parameter	Design Value
Total Process Volume (scfm)	55,000
Normal Operating Temperature (°F)	1,300 - 1,600 (Design Value)
Maximum Operating Temperature (°F)	2,000 (Design Value)
Maximum VOHAP Concentration	20 ppm
Fuel Type	Natural Gas 1,000 BTU/cubic foot
Maximum Fuel Supply	9,000 cfh @ 5-10 psig

**Table 3.2-4 EUMP, EUMCS, EUSS and EUCCFBACK Volatile Organic Compound Control No VOC Air Pollution Control Equipment for EU-MP, EU-SS and EU-CCFBACK RTO control for VOCs on EU-MCS**

Parameter	EU-MP Baghouse	EU-MCS Baghouse	EU-SS Baghouse	EU-CCFBACK Baghouse
MACT Limit	NA	VOHAPS 20 ppmv	NA	NA
State Limit	VOC 5.28 pph	VOC 15.49 pph	NA	NA
Compliance Stack Tests 5/2015	VOC 1.38 pph	VOC 7.4 ppm 2.51 pph	NA	NA
PTE – 8760 hours * pph (stack test)	VOC 6.04 TPY	VOC 10.99 TPY (controlled)	NA	NA
Subject to CAM?	No	No	NA	NA
Subject to MACT?	No	Yes	NA	NA

**Table 3.2-5 EUMP, EU-MCS, EU-SS AND EUCCFBACK Visible Emissions /Structure - (Baghouse Fan)**

Parameter	EU-MP Baghouse	EU-MCS Baghouse	EU-SS Baghouse	EU-CCFBACK Baghouse
MACT Limit	< 20% - Structures	< 20% - Structures	< 20% - Structures	< 20% - Structures
State Limit	NA	NA	NA	NA

Compliance Stack Tests 5/2015	NA	NA	NA	NA
PTE – 8760 hours * pph (stack test)	NA	NA	NA	NA
Subject to CAM?	No	No	No	No
Subject to MACT?	Yes	Yes	Yes	Yes

**Table 3.2-6 PM Monitoring Approach EU-MP for MACT and EU-MCS, EU-SS and EU-CCFBACK**

<b>A. Indicators</b>	
	<p>d. BAG LEAK DETECTOR in stack/ Triboelectric System with monitor and alarm</p> <p>e. Photohelic Gauges</p> <p>f. Fan Amperage Gauges</p> <p>Visible Emission Structure Inspection is performed during daylight hours and documented</p>
<b>B. Indicator Range</b>	
	<p>Normal operating range is 10pA to 60pA for the bag leak detector. The alarm will trigger outside the normal operating ranges. Range set by particle detector vendor.</p> <p>Photohelic set point ranges are 1.5” to 10” based on baghouse vendor settings</p> <p>Normal range is between 4” and 5” set by maintenance department.</p> <p>Staff required to notify EHS staff if &gt;8”</p> <p>Note: Photohelic gauges serve as indicators of bag condition and lifespan and potential blinding or plugging.</p> <p>Fan amperage range based on proper fan operation (range 140-200 amps) and exhaust system design.</p>
<b>C. Performance Criteria</b>	
vi. Data Representative	h. The data is collected at the emission point. The probe is located inside the baghouse exhaust duct. The Triboelectric signal is shown on the data screen and recorded. The bag leak detection system equipment is inspected each shift and documented on a PM check sheet.
vii. Verification of Operational Status	i. The bag leak detection system (BLDS) includes an inspection against the Fan Motor Amperage and Damper Position Visual-Alarm.
viii. QA/QC Practices	j. An alarm function test will be performed and recorded on the daily PM inspection Sheet.



ix. Monitoring Frequency	k. The Triboelectric probe will be inspected every 3 months in accordance with section 4.3.4 l. The Triboelectric signal is continuously displayed for monitoring m. EHS will be notified immediately when an alarm occurs for investigation and or repair. The BLDS equipment is inspected and PM is conducted each month and documented. The BLDS inspection reports are reviewed by the EHS Engineer.
x. Data Collection Procedures	n. IV. The reason for alarm will be recorded on the daily PM inspection sheet. V. A start and end time of the alarm will be recorded against the purpose of the alarm VI. A visible emission inspection will be performed and recorded if outside conditions allow.

### **Control Technology – Regenerative Thermal Oxidizer**

ACM installed an RTO in order to meet the VOHAP limit of 20 ppmv from EU-MCS. The RTO is a TRITON-55.95 manufactured by Catalytic Products International (CPI).

Exhaust from EU-MCS is drawn into the RTO by a system booster fan and is directed into one (1) of two (2) regenerator columns where the exhaust stream is heated to 1,300 °F or more. The heated exhaust stream then exits the regenerator column and flows into the combustion chamber where oxidation of volatile organic compounds (VOCs) takes place. Oxidation of VOCs in the exhaust stream converts VOCs into carbon dioxide (CO<sub>2</sub>) and water vapor. The Even –Flo manifolds to the RTO have a small volume, and this is very important to ensure a high VOC destruction rate efficiency (DRE). The combusted VOCs are then routed to the other regenerator column for supplemental heating purposes.

The design of the RTO allows for continuous VOC destruction and fully automatic operation. It provides for very low burner heating demands and static pressures. The regenerator temperature profiles are continually analyzed, and valve timing is frequently adjusted to maximize the system's thermal rate efficiency. The RTO is also designed to have high operating reliability, therefore requiring nominal maintenance.

The equipment specifications for the RTO are presented in Table 3.2-7 below.

**Table 3.2-7 RTO Equipment Specifications <sup>1</sup>**

Parameter	Design Value
Total Process Volume (scfm)	55,000

Parameter	Design Value
Normal Operating Temperature (°F)	1,300 - 1,600 (Design Value)
Maximum Operating Temperature (°F)	2,000 (Design Value)
Maximum VOHAP Concentration	20 ppm
Fuel Type	Natural Gas 1,000 BTU/cubic foot
Maximum Fuel Supply	9,000 cfh @ 5-10 psig

<sup>1</sup> See Section 4.6 for specific operating values determined from stack testing.

The vendors of the CEMS unit perform three compliance gas audits (CGA) a year (on a quarterly basis). Once a year, a Relative Accuracy Test Audit (RATA) is performed in the fourth quarter.

**Table 3.2-6 VOC Monitoring Approach EU-MCS for MACT**

A. Indicators	
	Environment SA GR52M Hydrocarbon Monitor
B. Indicator Range	
	THC Analyzer - Range: 0-50 ppm
C. Performance Criteria	
xi. Data Representative	The hydrocarbon data is collected at the emission point. EHS will be notified immediately when an alarm occurs for investigation and or repair. The CGA and RATA Reports are reviewed by the EHS Engineer and submitted to the EGLE AQD within 30 days following the end of the quarter.
xii. Verification of Operational Status	A start and end time of the alarm will be recorded against the purpose of the alarm. The reason for alarm will be recorded in the data logger and also on the daily PM inspection sheet. The information will be compiled for the Excess Emission Report.
xiii. QA/QC Practices	The vendors of the CEMS unit perform three cylinder gas audits (CGA) per year (one per quarter) and annual Relative Accuracy Test Audit (RATA) is performed in the fourth quarter. These are conducted in accordance with 40 CFR Part 60 Appendix F guidelines. ACM staff evaluate automatic calibration. If reading (error %) reads > +/- 5%, a manual calibration should be performed
xiv. Monitoring	Continuous THC monitoring performed by monitor. Daily calibrations

Frequency	performed by staff along with evaluation of gas cylinder status.
xv. Data Collection Procedures	Daily PM sheet for CEM & RTO Continuous data logger for THC monitor

### 3.3 Miscellaneous Sources

#### PROCESS DESCRIPTION

##### FGGrinders - Automatic Grinders

Two Reichmann enclosed automatic grinders for deburring of round parts including brake discs, clutch plates and other miscellaneous metal parts have been added as part of the finishing system. The grinders are exhausted to a Waltz-Holtz Dostar 70,000 ACFM reverse air fabric filter collector. The fabric filter collector will also be used for future in plant environment control.

##### EUConveyors –

This is a casting cooling vibratory conveyor section that is covered and ventilated to a 28,000 dscfm baghouse

##### EUShotblast

A shotblast machine with a mechanical pre-cleaner followed by a 7,500 scfm baghouse that vents outside. This unit has a particulate limit

##### FGPaintLine

These are water-based paint lines subject to Subpart M. The paint lines comply with Subpart M by using compliant materials in the process and state limits process to 10 tons VOC per year.

**Table 3.2-1 EUMP, EUMCS, EUSS and EUCCFBACK Particulate Control  
Baghouse Design Specifications**

Parameter	FG-Grinders Baghouse	EU-Conveyor Baghouse	EU-Shotblast	FG-Paint Line- Dry Filter
MACT Limit	NA	NA	NA	NA

State Limit	PM10 – 0.30 pph	Rule 290 1000 lbs uncontrolled 500 lbs controlled	0.001 lbs PM/1000 lbs of exhaust gas	NA
Compliance Stack Tests 5/2015	NA	NA	NA	NA
Design Flow (ACFM)	70, 000	28,000	7,500	
Contaminant	Fume & Dust	Fume	Sand	
Cleaning Type	Pulse Jet	Pulse Jet	Pulse Jet	
Design Temp (°F)	100	100	100	
Gas Temp Range	Ambient to 150 °F	Ambient to 150 °F	Ambient to 150 °F	Ambient to 150 °F
Design Pressure (in. WG)	2” to 5”	2” to 5”	2” to 5”	
Max Pressure Drop Across Baghouse (in. WG)	10	10	10	
Min Pressure Drop Across Baghouse (in. WG)	1.5	1.5	1.5	
Fan Amperage Range	NA	NA	NA	
Number of Cells	1	1	1	
Bag Leak Detection?	Yes	Yes	Yes	
PTE	89.9 TPY Uncontrolled	6 TPY Uncontrolled	89.9 TPY Uncontrolled*	14.93 Uncontrolled
Subject to CAM?	No	No	No	No
Subject to MACT?	No	No	No	No

## 4.0 OPERATION AND MAINTENANCE

The air pollution control systems will be operated and maintained at all times in a manner consistent with good air pollution control practices for minimizing emissions. Each piece of the capture and collection system (hoods, dampers, ductwork, etc) and control device (baghouse, RTO) will be operated according to this written O&M plan, as required by 40 CFR 63.7710(b), at all times.

According to the requirements of 40 CFR 63.7710(b), this O&M plan addresses the following elements found in Table 4- 1.

**Table 4-1. Operation and Maintenance Requirements**

<b>Description</b>	<b>Section</b>
Monthly inspections of the capture systems	Section 4.1
Preventative maintenance plan for the baghouses and RTO	Section 4.2
Site-specific monitoring plan for the bag leak detection systems	Section 4.3
Mold vent ignition procedures or determination	Section 4.4
Operating limits that are appropriate and reliable indicators of performance for the capture system for VOHAPS (note, this applies to the MCS capture system only)	Section 4.5
Monitoring Plan for the RTO	Section 4.6
Corrective action plan for each baghouse	Section 6.2

### 4.1 Monthly Equipment Inspections of the Capture System

ACM will perform equipment inspections of the capture systems as follows:

1. Monthly inspections of equipment used to ensure proper performance (i.e., pressure sensors, dampers, damper switches).
2. Monthly inspections of the physical appearance of the equipment related to the capture systems. Any defects found during an inspection will be repaired as soon as practicable.

### 4.2 Preventative Maintenance

Preventative maintenance plans for the baghouses and RTO are discussed in the following subsections.

#### 4.2.1 Baghouses

The baghouses will operate according to a preventative maintenance plan. This plan includes a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance and operability. In addition to the manufacturer's instructions, ACM will perform the following maintenance activities according to 40 CFR 63.7740(c) (specifically for each baghouse that is applied to meet a PM or total metal HAP limit in 40 CFR Part 63, Subpart EEEEE):

1. Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
2. Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
3. Check the compressed air supply for pulse-jet baghouses each day.
4. Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
5. Check bag cleaning mechanisms for proper functioning through monthly visual inspections or equivalent means.
6. Make monthly visual checks of bag tension to ensure that bags are not kinked (knead or bent) or lying on their sides.
7. Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
8. Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

#### **4.2.2 Regenerative Thermal Oxidizer**

The RTO will operate according to a preventative maintenance plan. Maintenance requirements for the RTO are described in detail in the operator manuals supplied with the RTO. The RTO will require minimal maintenance due to its designed high uptime reliability. The maintenance requirements for the RTO, as described in the operator manuals, are linkage tightening, bearing lubrication and normal fan maintenance. These parameters will be checked in accordance with the preventative maintenance plan.

ACM will also implement a daily checklist of items specific to proper RTO operation. This includes verifying the combustion chamber temperature and the differential pressure to the RTO. The checklist is contained in Appendix A.

#### **4.3 Bag Leak Detection System Monitoring Plan**

ACM shall operate and maintain the bag leak detection system (BLDS) according to this site-specific monitoring plan at all times (40 CFR 63.7710(b)(4)). ACM uses a bag leak detection system (BLDS) based on the Triboelectric effect. The BLDS sensor is powered by a Programmable Logic Controller (PLC), is installed in the exhaust stack, and produces a continuous analog output signal. The output data will be recorded and stored electronically.

The BLDS will be operated and maintained according to the manufacturer's recommended procedures and EPA-454/R-98-015: EPA Fabric Filter Bag Leak Detector Guidance. This includes performing the following routine maintenance activities (items 2 and 3 pertain to triboelectric monitors only):

1. Perform a BLDS response test on a monthly basis.
2. Perform an electronics drift check on a monthly basis.
3. Perform an annual setup if the monitor's settings have not been adjusted within a year's time.

In the event that an alarm is triggered, corrective action must be initiated within 1 hour of the alarm to determine cause of the alarm and initiate corrective action to resolve the problem

within 24 hours of the alarm. The corrective action must be completed as soon as practicable. Corrective actions are listed in Section 6.2. A spare parts inventory list will be kept on file.

#### **4.3.1 Installation of Bag Leak Detection System**

The sensor is mounted in the exhaust stack more than two diameters downstream of any flow disturbance. This installation complies with guidelines in EPA-454/R-98-015 to avoid locations susceptible to dust buildup, vibration, and high voltage or current sources.

#### **4.3.2 Initial and Periodic Adjustments**

The sensor is supplied with a logarithmic output mode providing the 4-20 mA signal. The sensor output mode is adjusted to achieve appropriate sensitivity that best captures the range of outputs from normal cycles, cleaning cycles, and alarm levels.

Part of initial set up includes functional test using a small sample of dust. This dust is introduced into the stack using a port upstream of the sensor. The output alarm setting is adjusted and confirmed to reliably trigger an alarm signal using this test method.

#### **4.3.3 Operation of Bag Leak Detection System**

Operation of the leak detection system does not require any special actions. This system is wired to be powered whenever the MP baghouse fan motor is on.

#### **4.3.4 Routine maintenance of Bag Leak Detection System**

Routine maintenance includes visual inspection of the sensor probe to look for water leakage (rain) and potential dust build-up on the leading edge of probe. Inspection is performed every 6 months. Inspections will be performed after any alarm condition, including bag breakage or other malfunction.

#### **4.3.5 Bag Leak Detection System Recordkeeping**

The data from the Triboelectric sensor is recorded on the daily PM inspects sheets.

### **4.5 Operating Limit Parameters for the MCS Capture System**

Fan motor amperage will be monitored to indicate the level of ventilation draft. This parameter has been selected because it can be continuously monitored and because it represents the performance of the capture system, given the manual damper settings. The amperage is a parametric value for exhaust flow, which will indicate performance of the capture system for a set damper position. The fan amperage will be monitored by an ammeter and recorded. The damper positions serving the VOHAP capture system will be manually set and are not expected to change seasonally. Damper settings will be fixed after startup, system balancing, and compliance testing. They will be inspected monthly to ensure that the fixed settings have been maintained.

Exhaust flow will also be monitored from the baghouse to the RTO to ensure it is being captured efficiently and routed to the RTO. This is achieved through a magnahelic which records the inlet and outlet differential pressure.

#### **4.5.1 Continuous Monitoring System (CMS)**

ACM will operate and maintain a Continuous Parameter Monitoring System (CPMS) for the MCS capture system to meet the requirements of §63.7740(a). The parameter that is monitored is the fan motor amperage (indicating the level of ventilation draft). Dampers that are manually set and remain in the same position are exempt from the requirement to install and operate a CPMS according to §63.7740(a)(2). The results of each inspection, calibration, and validation check will be recorded according to §63.7741(a)(3).

ACM will also operate and maintain a Continuous Emissions Monitoring System (CEMS) to measure and record the concentration of VOC emissions from EU-MCS. The CEMS and CPMS (as well as the BLDS from Section 4.3) are subject to the CMS requirements of 40 CFR 63, Subpart A.

#### 4.5.2 Operation and Maintenance of Each CMS

1. Each CMS will be operated and maintained at all times, including periods of startup, shutdown, and malfunction, as specified in this section and in a manner consistent with good air pollution control practices for minimizing emissions. (63.8(c)(1))
2. Parts necessary for routine repairs of the CMS will be kept readily available. This list will be maintained on-site. (63.8(c)(1)(ii))
3. A written startup, shutdown, and malfunction plan as required §63.8(c)(1)(iii) has been included in Section 6.0.
4. Each CMS will be installed and operated consistent with §63.8(c)(3). The CEMS for the RTO will be operated and maintained according to Performance Specification 8 in 40 CFR Part 60, Appendix B.
5. When the CMS is out of control, ACM will take the necessary corrective action and will repeat all necessary tests which indicate that the system is out of control. ACM will take corrective action and conduct retesting until the performance requirements are within the applicable limits. The beginning of the out-of-control period is the hour the performance check is conducted (e.g., calibration drift) that indicates an exceedance of the established performance requirements. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data will not be used in data averages and calculations, or to meet any data availability requirement established under this part. (63.8(c)(7))
  - a. The CEMS is considered out of control if:
    - i. The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or
    - ii. The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.
  - b. The CPMS (for fan amperage) is considered out of control if the amperage is outside of the range specified in Table 3-2.



- c. The BLDS is considered out of control when readings indicate a problem that cannot be validated via inspection, or vice versa, or when no data is available.
- 6. If a CMS is out of control as defined above, ACM will submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in §63.10(e)(3). (63.8(c)(8))

Each applicable CMS will be operated according to this site specific monitoring plan which requires continuous operation, completing a minimum of one cycle of operation for each successive 15-minute period and collecting a minimum of three of the required four data points to constitute a valid hour of data as well as providing valid hourly data for 100 percent of every averaging period. Each CMS will determine and record the hourly average of all recorded readings and the 3-hour average of all recorded readings.

ACM will also implement a daily checklist of items specific to proper CEMS operation. This includes verifying the gas pressure, calibration drift and trends. The checklist is contained in Appendix A.

#### 4.6 Regenerative Thermal Oxidizer Monitoring Plan

ACM is required to have a monitoring plan for the RTO. In accordance with 40 CFR §63.7690(c) the plan must contain following:

1. Control device description: Refer to Sections 3.2.2 for a detailed description of the RTO.
2. Performance test results from EU-MCS:
  - a. VOHAP emissions = 5.11 ppmv -2013, 7.4 ppmv - 2015
3. This document serves as an O&M Plan for the RTO. Refer to Section 4.2.
4. Operating parameters will be monitored on a continuous basis to verify the RTO is operating properly and that VOHAP emissions from EU-MCS are in compliance with the 20 ppmv limit. The RTO's is equipped with a control and monitoring system called the Temperature Safety System (TSS). This system allows for fully automatic operation of the RTO, provides self – diagnostics, and ultimately protects the oxidizer. The TSS will verify the following operating parameters and associated limits (these limits have been verified by stack testing performed on September 5, 2013 and April 28, 2015):
  - a. The RTO combustion chamber temperature will operate between 1,300 °F – 1,600 °F.
  - b. The exhaust stream will be in the combustion chamber for approximately 0.5 seconds to ensure VOC destruction.
  - c. Posi-Seal Valves in the RTO must be positioned correctly at all times for precise VOC destruction and thermal exchange effectiveness.

A control operator will monitor the TSS at all times the RTO is in operation.

## 5.0 WORK PRACTICE STANDARDS

### 5.1 Scrap Certification Program

ACM purchases and uses only\* metal ingots, pig iron, slitter, or other materials that *do not* include post-consumer automotive body scrap, post-consumer engine blocks, post-consumer oil filters, oily turnings, lead components, mercury switches, plastics or free organic liquids.

### 5.2 Scrap Selection & Inspection Program

\*If ACM must purchase and use any of the scrap materials prohibited in the Scrap Certification Program, it must follow a Scrap Selection & Inspection Program for that scrap material. This program requires that the foundry develop and operate at all times under a *written* plan to minimize, to the extent practicable, the amount of organics and HAP metals in the charge materials. It *requires all of the following*:

1. For induction furnaces: specifications provided to suppliers that require depletion (to the extent practicable) of the presence of oil filters, plastic parts, organic liquids, and a program to ensure the scrap materials are drained of free liquids.
2. A materials acquisition program specifying that the scrap supplier remove accessible mercury switches from the trunks and hoods of any automotive bodies contained in the scrap and remove accessible lead components such as batteries and wheel weights. You must obtain and maintain onsite a copy of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.
3. Procedures for visual inspection of a representative portion, but not less than 10 percent, of all incoming scrap shipments to ensure the materials meet the specifications. The inspection procedures must:
  - a. Identify the location(s) where inspections are to be performed for each type of shipment. The selected location(s) must provide a reasonable vantage point, considering worker safety, for visual inspection.
  - b. Include recordkeeping requirements that document each visual inspection and the results.
  - c. Include provisions for rejecting or returning entire or partial scrap shipments that do not meet specifications and limiting purchases from vendors whose shipments fail to meet specifications for more than three inspections in one calendar year.
  - d. Load rejection criteria that include visible: mercury switches, lead acid batteries, lead wheel weights, plastic components (not removed to the extent practicable), free liquids (not drained to the extent practicable), lead pipes. Issues with non-compliant loads and vendors are handled by the department handling materials acquisition.

This Scrap Selection and Inspection Plan must be kept onsite and be readily available to all plant personnel with materials acquisition or inspection duties.

### 5.3 Mold Vent Ignition Assurance (63.7710(b)(6))

Mold vents in both foundries ignite automatically, meaning they ignite more than 75 percent of the time without an auxiliary ignition source and the flame is present for at least 15 seconds. Records of this determination must be maintained.

## 6.0 STARTUP, SHUTDOWN, AND MALFUNCTION PROVISIONS

### 6.1 Definitions:

*Excess Emission:* for the purposes of this plan, an Excess Emission is an abnormal condition, start-up, shutdown, or a malfunction that results in emissions in excess of any applicable standard or limitation (MACT or permit limit).

*Abnormal:* for the purposes of this plan, Abnormal refers to an **unusual** operating condition (such as a malfunction) that could result in a discharge of emissions greater than is allowable under a rule or permit.

*Normal:* for the purposes of this plan, Normal refers to conditions that usually occur during the start-up or shutdown of subject process or pollution control equipment and that are consistent with safety and good air pollution control practices for minimizing emissions.

*The SSM Planning requirements are subjective in that documentation and response is only required when Excess Emissions occur, and Excess Emissions are not be easily recognized. A process or pollution control device will be presumed to comply with all applicable emission standards and limitations during start-up and shutdown if operated normally.*

### 6.2 Malfunction Response:

A record must be kept for every Abnormal event, including:

1. the time of the event,
2. the equipment involved,
3. a full description of the condition,
4. a full description of the corrective action,
5. actions taken to minimize emissions during malfunction,
6. the duration of the event, and
7. a determination of whether or not this plan was followed. This may be in the form of a work order or checklist.

***CONTACT ENVIRONMENTAL ENGINEERING IMMEDIATELY UPON DISCOVERY OF ANY MALFUNCTION OR ABNORMAL CONDITION, START-UP, OR SHUTDOWN.***

If there is excessive visual opacity from the stack of the collector or if the operating parameters are repeatedly out of range, Maintenance will:

- a. Determine the extent of the damage and direct repairs and inspections of the malfunctioning unit and estimate the level of time and effort required to repair the unit.
- b. If the equipment cannot be repaired during normal operation, the affected process equipment will be shut down until the repairs can be made.
- c. Maintenance is responsible for documenting the repairs and that the recordkeeping and reporting requirements are met.

Specific corrective actions for malfunctions are based on Maintenance determination and are made as soon as practicable after their occurrence.

The malfunctions covered must include malfunctioning process equipment, air pollution control systems, and monitoring systems.

### **6.3 Start-up and Shutdown Procedures:**

#### **6.3.1 Procedure for Start-up:**

1. Start the pollution control equipment prior to beginning production
2. Ensure all appropriate\* operation parameters are within specified ranges, such as:
  - a. Differential pressure
  - b. Blower motor amperage
  - c. RTO combustion chamber temperature
3. Begin production and ensure parameters remain with specified ranges
4. Immediately notify maintenance of any abnormal conditions

#### **6.3.2 Procedure for Shut-down:**

1. Wait until production has ceased
2. Shut down pollution control equipment

### **6.4 Reportable Malfunction Determination:**

If a system malfunction occurs that is NOT on the following list, or a period of excess emissions occurs, records must be kept that an abnormal condition occurred, the duration of the abnormal condition, and confirmation that the Plan was followed. This will likely be in the form of a work order issued through Maintenance.

Specific corrective actions for malfunctions are based on Maintenance determination and are made as soon as practicable after their occurrence.

The malfunctions covered must include malfunctioning process equipment, air pollution control systems, and monitoring/CPMS systems.

Some possible operating problems for the collectors include:

1. The bags get too full
2. Garbage, like paper, is collected by the equipment and plugs the screen
3. Booster does not get started
4. Air lock plugging or failure
5. Pulsars stick

### **6.5 Corrective Actions**

Corrective actions may include, but are not limited to:

1. Inspecting baghouse for leaks, torn or broken bags or filter media, or any condition that may cause excess emissions.
2. Sealing off defective bags or filter media.
3. Replacing defective bags or filter media or otherwise repairing the control device.
4. Sealing off a defective baghouse compartment.
5. Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system.
6. Implementing process changes.
7. Shutting down the process producing the particulate emissions.

If a malfunction occurs that is not on this list, the problem will be logged and reported to the Agency as an Immediate SSM Report (see reporting requirements).

The list of possible abnormal conditions may be revised periodically without prior approval of the Agency. All versions of the plans must be kept electronically on site indefinitely. Each revision must be reported in the Semiannual Compliance Report. If the Plan fails to address a failure, it must be revised within 45 days after the event to correct the deficiency. A written notice must be provided to the Agency if the revision “alters the scope or the activities at the source which are deemed to be startups, shutdowns, or malfunctions”.

## 6.6 Malfunction Reporting:

The following table summarizes the reporting requirements for ACM.

**Table 6-1. Reporting Requirements**

Agency (Rule)	Excess Duration	HAP Excess Duration	Verbal Report Within	Written Report Within
Federal (63.6(e)(3))	Any – and SSM Plan Not Followed		2 days	7 days
Michigan (R336.1912)	2 hours	1 hour	2 days	10 days

### 6.6.1 Immediate SSM Report

Required if a SSM occurred that was not consistent with the SSM Plan, or the SSM Plan was not followed, and an emission limit was exceeded or an operating limit parameter not met as a result.

The immediate report must consist of a phone call or fax to the Agency within 2 working days after the event occurred. It must be followed by a letter, delivered or postmarked within 7 working days after the end of the event, which contains the following:

- Name, title, and signature of a responsible official certifying its accuracy.
- Explanation of the circumstances surrounding the event.
- The reasons for not following the SSM Plan.
- Description of all excess emissions and/or parameter monitoring exceedances which are believed to have occurred.

## 7.0 RECORDKEEPING

ACM will keep the following records for a period of five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record:

1. A copy of each notification and report necessary to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status.
2. Documentation of the occurrence and duration of each startup or shutdown when the startup or shutdown causes an exceedance of an emission limit.
3. Documentation of the occurrence and duration of each malfunction of operation, baghouse, RTO or monitoring equipment.

4. All maintenance performed on the baghouses, RTO and monitoring equipment.
5. Documentation of the actions that are inconsistent with the actions specified in the plan taken during periods of startup, shutdown or malfunction.
6. All information necessary to demonstrate compliance with the provision of the plan when all actions taken during the startup, shutdown, or malfunction are consistent with the provisions of the plan.
7. Documentation of each period during which the BLDS is malfunctioning or inoperative, including out of control periods.
8. All required measurements needed to demonstrate compliance with a relevant standard, including 15-minute averages BLDS data, raw performance testing and evaluations measurements, that support data that the source is required to report and data recorded from unavoidable breakdowns and out-of-control periods.
9. All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of BLDS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report).
10. All performance test results, BLDS performance evaluations, and opacity and visible emission observations.
11. All measurements that may be necessary to determine the conditions of performance tests.
12. All calibration checks, adjustments, and maintenance associated with BLDS calibration checks.
13. The total process operating time during the reporting period.
14. All procedures that are part of the quality control program developed and implemented for the BLDS.
15. Records of the annual quantity of each chemical binder or coating material used to make molds and cores, the Material Data Safety Sheet or other documentation that provides the chemical composition of each component, and the annual quantity of HAPS used at the foundry.
16. Previous versions of the performance plan.
17. Records of the date and time that each deviation started and stopped and whether the deviation occurred during a period of startup, shutdown, or malfunction, or during another period.
18. Records of the times the bag leak detection system alarm sounded, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which the corrective action was completed.

The above listed records will be maintained through a combination of hard copies and electronic files as allowed by §63.10(b)(1).

## **8.0 REPORTING REQUIREMENTS**

ACM will report the following information:

1. Company name and address.
2. Responsible official name, title, and signature.
3. Statement by a responsible official certifying the truth, accuracy, and completeness of the content of the report.
4. Date of report.
5. Beginning and ending dates of the reporting period.

6. Responses and actions consistent with the startup, shutdown, and malfunction (SSM) Plan. Each response to a process or control system startup, shutdown, or malfunction that complies with the provisions of the plan are included in semiannual Startup, Shutdown, and Malfunction Reports to the United States (U.S.) Environmental Protection Agency (EPA). The semiannual reports to U.S. EPA will also confirm that the response actions taken during the reporting period conformed to the applicable requirements of the Startup, Shutdown, and Malfunction Plan and will include:
  - a. Identification of the startup, shutdown, or malfunction event(s).
  - b. A statement that the provisions of the plan were implemented during the startup, shutdown, or malfunction.
7. If there were no deviations from the emission limitations, work practice standards, or operation and maintenance requirements, ACM will include a statement that there were no deviations during the reporting period.
8. If there were no periods during which the CPMS, CEMS, and BLDS was out of control, ACM will include a statement that there were no periods during which the CPMS, CEMS, and BLDS were out of control during the reporting period.
9. For each deviation from an emissions limitation (including an operating limit) that occurs for which a CMS (including a CPMS or CEMS) is not being used to comply with an emissions limitation or work practice standard, the compliance report will contain the following information, including periods of startup, shutdown, and malfunction.
  - a. The total operating time of each emissions source during the reporting period.
  - b. Information on the number, duration, and cause of deviations (including unknown cause) as applicable and the corrective action taken.
10. For each deviation from an emissions limitation (including an operating limit) or work practice standard where a CMS (including a CPMS or CEMS) is being used to comply with the emissions limitation or work practice standard in this subpart, ACM will include the following information, including periods of startup, shutdown, and malfunction.
  - a. The date and time that each malfunction started and stopped.
  - b. The date and time that each CMS was inoperative, except for zero (low level) and high-level checks.
  - c. The date, time, and duration that each CMS was out-of-control, including the specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances that occurs during periods other than startups, shutdowns, and malfunctions of the affected source.
  - d. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
  - e. A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
  - f. A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes.
  - g. A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system

downtime as a percent of the total source operating time during the reporting period.

- h. A brief description of the process units.
  - i. A brief description of the CMS.
  - j. The date of the latest CMS certification or audit.
  - k. A description of any changes in the CMS, processes, or controls since the last reporting period.
11. If a startup, shutdown, or malfunction during the semiannual reporting period was not consistent with the startup, shutdown, and malfunction plan, ACM will submit an immediate startup, shutdown, and malfunction report according to the requirements of 40 CFR 63.10(d)(S)(ii).

Any time an action taken during a startup or shutdown causes an exceedance to any applicable emission limitation, or malfunction (including actions taken to correct a malfunction) and is not consistent with the procedures specified in the Startup, Shutdown, and Malfunction plan, an initial report will be submitted within 2 working days after commencing actions inconsistent with the Startup, Shutdown, and Malfunction plan. The initial report must document the actions taken for that event and must consist of a telephone call or facsimile to the Administrator. The initial report must be followed by a letter that is delivered or postmarked within 7 working days after the end of the event. The letter must contain the name, title, and signature of the responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions), and actions taken to minimize emissions.

## 9.0 PLAN REVISION

The Startup, Shutdown, and Malfunction Plan will be revised to address reasonable revision requests required by U.S. EPA or MDEQ due to a determination that any of the following apply to the plan:

1. A startup, shutdown, or malfunction event that is not addressed in the plan has occurred.
2. The provisions for correcting malfunction process or emissions control equipment are inadequate.

### 9.1 Copies of the Plan

A current copy of the plan will be kept onsite for the life of the foundry and be available by inspection upon request. Any previous versions of the plan will be kept on file for five (5) years from the date of revision (40 CFR 63,6(e)(3)(v)).

Date Issued	Revision No.	Revised by	Summary of Changes
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11/13/2008	0	NTH	Original Issue – New Foundry
12/10/2010	0	NTH	Original Issue – Existing Foundry
8/31/2012	1	Goldenberg Schneider	Combined separate O&M plans, added other air pollution control plan requirements, updated information
3/14/2013	2	Paul McClure	Revised 3.0. Updated CAM for PM control and Monitoring Approach in section 3.1 & 3.2
4/17/2013	3	Paul McClure	Added monitoring approach for EUMPCC, EU-MP baghouses.
10/30/2013	4	NTH	Incorporated RTO into plan
<b>Date Issued</b>	<b>Revision No.</b>	<b>Revised by</b>	<b>Summary of Changes</b>
1/10/2014	5	NTH/Paul McClure	Updated combustion temps of RTO; added baghouse design specifications and monitoring approach for EUSANDSYSTEM; updated baghouse design specifications for EU-SS and EU-CCFBACK; added monitoring approaches for EU-MCS, EU-SS and EU-CCFBACK; updated daily inspection check sheets (Appendix A).
11/6/2015	6	ACM/AWCG	Administrative Updates: 1. Updated ROP Number 2. Updated Test Results Apr-May, 2015 3. Updated daily inspection check sheets to comply with ISO System Format/ID
<b>Date Issued</b>	<b>Pending Revisions.</b>	<b>Revised by</b>	<b>Summary of Changes</b>
12/13/2017	Pending	ACM	Grinder PTI 184-17 issued
7/9/2018	Pending	ACM	Grinders Start -Up
6/4/2019	Pending	ACM / C. Marsh	Updated daily inspection check sheets
6/1/2020	Pending	ACM/Network	Planned stack testing

Pending Revisions: Incorporation of PTI #184-17 into ROP No. MI-ROP-N5814-2015 Renewal

# Appendix A



## Bag Leak Detection Blog

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## Q & A session on BLDS, EPA requirements, isokinetic testing and more!

Posted by [Justin Dechene](#) on Apr 10, 2015 4:30:00 PM

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We just wrapped up a successful webinar specific to the Power of predictive monitoring using Bag Leak Detection Systems (BLDS)— we thank all those who attended and thought we would share the questions and answers that resulted from the presentation.

Let us know if you find this useful, or if there are other ways in which we can help you!



## Webinar Q&A

**Q1 - What is the current position that EPA is taking with respect to Tribo and Opacity... or other technologies?**

**A1 - EPA's Position on Triboelectric Bag Leak Detector vs. Opacity Meters** The USEPA (United States Environmental Protection Agency) believes that baghouse leak detection represents state-of-the-art compliance assurance for baghouses, and has implemented it in all new source MACT (Maximum Achievement Control Technology) standards since 1995. MACT standards are an important component of the National Emissions Standards for Hazardous Air Pollutants (NESHAP). Electrostatic Bag Leak Detection Systems (BLDS) are designed to monitor events and to locate leaks before catastrophic dust breakthrough occurs. This differs from opacity monitors which only monitor continuous emissions. New rules, such as these developed under the part 63 NESHAP program, emphasize direct measures of compliance. Bag leak detection systems provide this higher level of compliance assurance.

**Q2 - Can you discuss operator interface a little?**

**A2** - Looking at the operator interface on a triboelectric BLDS can vary from manufacturer to manufacturer. In Auburn's experience, we have tried to improve the interfaces as the product line has evolved. The early units did not have much interface to speak of as you had to rely on how many turns of a potentiometer screw to know where you might be at. Over the years, the user interface became much more intuitive to how the units worked. And our latest product line the TRIBO.dsp series is extremely informative and efficient from a user's point of view. We carried that philosophy over into our software as well, allowing for user customization so that they can easily see and navigate to find the data they need.

**Q3 - The focus has been around filter bags, in your experience, are pleated cartridges less apt to fail?**

**A3** - During the webinar, we did seem to focus on the filter bag. Often when we say baghouse, we use it as a generic term for dust collector, but in truth our detectors and monitors have been used on all types of fabric filters, whether they are in a typical baghouse or cartridge filter collector. Because monitoring applications all have their own unique set of physical conditions, it is hard for us to say if one type of filter is better than another. So much can depend on how the collector is run and maintained. Although I know that pleated filter bags have their advantages, I can say that we are often used to monitor this style of filters as well.

**Q4 - How do you deal with particle buildup?**

**A4** - Depending on the application, the probe that is installed in the duct or pipe can experience no build-up or excessive build-up. It is important when deciding to install a detector what the conditions in your application will be. This is why we always take the time to find out information about your particular application. When we know the process conditions we can anticipate the need for a special probe for these circumstances. For instance, if your process handles a conductive material that tends to coat everything, we will use a jacketed probe to protect against false signals like material bridging or battery effect. IF you know that you only sometimes have moisture present which can cause some material to build-up but is corrosive we will use an alternative probe material to handle the possible corrosion. Also – all of our Tribo.dsp series of products have an automatic "probe error check". This feature alerts the

user for when there is a false signal due to excess material or moisture and is an indication that the probe may need to be cleaned. This is a good question – and the most important point is to discuss your application details with us – so we can help provide the best probe configuration and eliminate extra work and frustration for your operators and maintenance personnel.

**Q5 - Has the device EPA certification?**

**A5** - The EPA recognizes triboelectric style instruments as qualified for use to satisfy the Bag Leak Detection System requirements. Our equipment has been installed for many years to help our customer meet their EPA, state or local environmental requirements. Our technology exceeds the minimum BLDS requirements stated by the USEPA for MACT Standards.

**Q6 - How does moisture affect a differential pressure gauge?**

**A6** - We can look at that question in one of two ways – moisture affecting the material being collected by the filter and moisture actually affecting the instrument. If there is moisture in the air stream into the collector and it is condensing, there is a concern of blinding the filter media which will cause the DP reading to increase – which means your fan is working harder to try and pull the air through the collector – Higher DP means higher costs. As for how will moisture affect the actual device, from our experience, any time we have supplied a DP monitor to a customer it is very important that they are installed so that moisture does not get into the switch nor into the pitot tubes – that will affect the measurement and performance of the device. Consult with the manufacturer of your device for more specific guidance.

**Q7 - Does your device need to be calibrated with an isokinetic test?**

**A7** - This is an interesting question as it can speak to how to set up a unit or how to use it for certain applications. As far as set up of Auburn detectors and monitors, all of our equipment is shipped from the factory ready for use and does not need any field calibration. All TRIBO.dsp series products use all digital no-drift circuitry so that periodic zero adjustments or tests are not needed. This means even less maintenance for your operators. Some customers however,

do want to correlate our pico amp signal to the concentrations that are being emitted from the process. For this an isokinetic test can be performed. More commonly customers will perform an EPA Method 5 test to measure the output from the process. This data is then matched to our recorded signal during the same time period and a correlation factor is determined. As long as the process conditions are relatively constant, the user can monitor using milligrams per cubic meter, or grams per dry standard cubic foot. Some of our monitors can be set up to read in these engineering units. In applications where velocity is variable, we can also measure the velocity to keep a good correlation for the process.

**Q8 - Can you correlate reading to actual emissions number in mg/m<sup>3</sup> or gr/ft<sup>3</sup>?**

**A8 -** This question is answered above.

**Q9 - How large a duct can the standard probe handle?**

**A9 -** Our standard probe sizes range from ½" for process flow application to 36" for duct sizes up to 72" in diameter. We try to make sure that an inserted probe extends to at least halfway across the diameter or longest dimension in rectangular ducts. When the duct sizes exceed these dimensions, we will either use two probes daisy-chained together or use a wire rope sensor to span longer distances.

**Q10 - What happens in case of moisture in stack coming from wet scrubber?**

**A10 -** Auburn equipment is currently being used to monitor wet scrubbers. Typically we will use a jacketed probe due to the constant presence of moisture. This prevents the high signals that would be generated using a standard stainless steel probe. The probe will detect the rise in particulate or the failure of mist eliminators to help personnel properly operate and maintain their wet scrubber.

**Q11 - My permit states I am only required to monitor the differential pressure of my baghouses – won't they tell me when my baghouse is starting to have a problem?**

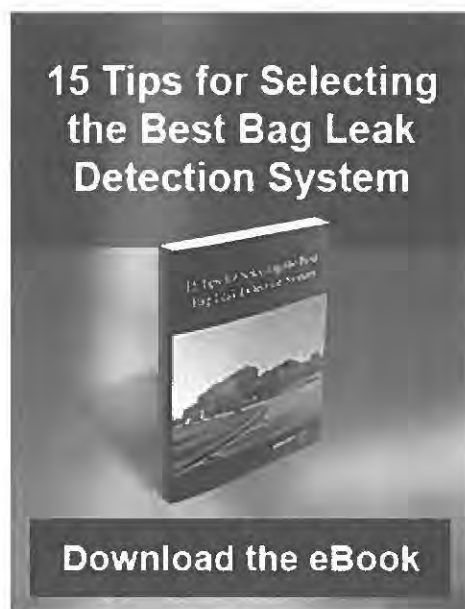
**A11** - Differential Pressure gauges or meters are a valuable instrument for running your baghouse. It gives you the information you need to know for when to clean, perhaps control your timer board. But as an early warning detector that can detect the onset of tiny leaks – a DP sensor can't do that. By the time that the differential pressure would let you know that you have holes in your bags – it will be at the visible emission point – it's just not what they were designed to do. Another point is, I have talked to many customers who installed a bag leak detector and then did not have to monitor and record the DP anymore. Since they were reading the gauges manually – it translated into instant labor and time savings.

**Q12** - I know there are different companies that sell the triboelectric style monitors – are they all the same?

**A12** - That's a good question – and no, they are not all the same. Basically you will run into three types – the older generation triboelectric like we talked about. Some detectors on the market are inexpensive, but they still are using older electronics, based on the “DC” triboelectric effect – like our early models were. These types are prone to the same problems of false signals and limited ranges. Another type you will see are those that only monitor a portion of the triboelectric effect – the “AC” portion or the induced signal caused by passing particles. These have their place for certain applications, but they basically ignore the most linear part of the signal, the “DC”. Lastly, You will find Auburn's 3000 series, our latest improvement, formally introduced back in 2013. This monitor is all digital, using a unified monitoring platform. This means it sees the entire triboelectric effect, giving the end use the best of both worlds by monitoring the “DC” and the “AC” signals simultaneously. This gives you the most reliable repeatable signal in a bag leak detector. It also opens up many process applications – but that is a topic for another day. So to answer the question, don't approach the decision about a detector thinking they are all the same – do your homework, or check our website and give us a call and we can go into further detail for you.

Use this link to view the webinar on the [Power of Predictive Monitoring using Bag Leak Detection Systems \(BLDS\)](#).





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800 Cummings Center, Suite 355W | Beverly, MA 01915 | 1-978-777-2460 |  
[sales@auburnsys.com](mailto:sales@auburnsys.com)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

Mary Ann Dolehanty  
Air Quality Division  
Michigan Department of  
Environment, Great Lakes and Energy  
535 West Allegan Street  
P.O. Box 30473  
Lansing, Michigan 48909-7973

Dear Ms. Dolehanty:

This letter is in regard to Michigan Department of Environment, Great Lakes and Energy's (EGLE's) draft Permit to Install (PTI) for Ajax Materials Corporation (Ajax) – PTI Application No. 2021-0019. The PTI would allow Ajax to install and operate a new hot mix asphalt plant at 5088 Energy Drive in Genesee Township, near the Flint border. Ajax intends to accept permit limits to ensure that emissions from the proposed facility would not exceed the major source threshold. The U.S. Environmental Protection Agency (EPA) has reviewed the draft PTI and associated permit files.

EPA is committed to advancing environmental justice and incorporating equity considerations into all aspects of our work. This commitment includes improving our assessment and consideration of the impacts of permits on communities already overburdened by pollution. As described below in more detail, we appreciate that EGLE shares this commitment and has taken steps to mitigate potential impacts from the proposed facility.

The neighborhood around the proposed asphalt plant has some of the highest levels in the State of Michigan for many pollution indicators used by EPA's environmental justice screening tool, EJSCREEN. EJSCREEN is a mapping and screening tool that provides EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators. It is a useful first step in understanding or highlighting locations that may have environmental justice concerns.

Like EPA, EGLE recognizes the challenges faced by this community. The Environmental Justice Index for eight of the eleven EJSCREEN indicators in the one-mile area around the proposed Ajax site exceeds the 90<sup>th</sup> percentile in the State of Michigan, including indices for

particulate matter of less than 2.5 microns in diameter, ozone, air toxics cancer risk, respiratory hazard, lead paint, Superfund proximity, hazardous waste, and wastewater discharge. The population of the people who live in the area around the proposed asphalt plant is disproportionately low income, people of color, and includes persons with limited English proficiency. The proposed Ajax site is in an area that is already heavily populated by industrial facilities along Dort highway and is in close proximity to residential housing and community centers.

EPA acknowledges the work EGLE has already undertaken on this permitting action, work that may go beyond what is usually required in Michigan for issuing a minor source air pollution control construction permit. EGLE required the applicant to conduct dispersion modeling for multiple air pollutants, including toxic cancer-causing compounds, to assess the potential impacts of this air pollution permit. EGLE has provided an extended opportunity for public comment, held both a virtual information session and hearings, and an in-person comment session, as part of its enhanced public outreach efforts to the community. EGLE also accepted comments via regular mail, voicemail, email, and in-person.

Our concerns, comments, and recommendations are included in the attachment to this letter. We highlight a few key comments here. First, because the proposed site for the Ajax facility is in an area with identified air quality concerns in EJSCREEN, EPA recommends a cumulative analysis of the projected emissions from all emission units at the proposed facility, fugitive emissions from the proposed facility, and emissions from nearby industrial facilities, to provide a more complete assessment of the ambient air impacts of the proposed facility on this community. Next we strongly encourage EGLE to assess the use of opacity cameras and other practically enforceable continuous compliance measures to assure that Ajax is meeting its permitted limits and following industry best practices. We also recommend that if the proposed asphalt plant is permitted, data regularly generated by Ajax to comply with the permit be made publicly available on an easily accessible website. The transparency of such data will promote public engagement and help build trust among all stakeholders.

Finally, because of the environmental conditions already facing this community, and the potential for disproportionate impacts, the siting of this facility may raise civil rights concerns, so it is important that EGLE assess its obligations under civil rights laws and policies. We understand that EGLE requested Ajax to consider alternative sites for this asphalt plant, but that the company declined to do so. Any of the additional analyses EPA is recommending may provide additional information in support of EGLE's evaluation of whether the proposed construction will cause adverse and disproportionate impacts for nearby residents. If so, we encourage the company, EGLE, and local authorities to consider again whether construction at an alternative site would avoid the potential for such impacts. We further encourage Ajax and EGLE to engage with the local community to address community concerns that may not be within the scope of the air permit.

Thank you again for the opportunity to work with you on this draft permit. EPA remains committed to working together with EGLE to address our shared environmental priorities,

advance equity, and reduce potential environmental and health impacts on communities such as this one.

Sincerely,

**CHERYL  
NEWTON**

Digitally signed by  
CHERYL NEWTON  
Date: 2021.09.16  
14:55:18 -05'00'

Cheryl L. Newton  
Acting Regional Administrator

Enclosures

**Detailed Permit Comments**  
**Ajax Materials Corporation**  
**PTI APP-2021-0019**

EPA has reviewed the draft PTI and associated permit files, including the technical fact sheet and permit application materials made available by EGLE during the public comment period, and has the following comments and recommendations:

1. We recommend that you evaluate whether additional nearby stationary sources and fugitive sources from the proposed facility should be included as part of the air quality modeling EGLE has required for this permit. The cumulative impacts analysis only considered the impacts associated with the proposed project. Neither nearby sources nor fugitives from the proposed facility were included in the modeling. We observe that Ajax is proposing to construct in an area where other stationary sources are already located and may be impacting the local community. Additionally, the toxic air contaminant (TAC) modeling does not consider all sources of stack and fugitive emissions. We recommend this analysis include an assessment of whether the source-wide TAC emissions from both fugitive and non-fugitive sources exceed EGLE's initial threshold screening level (ITSL) or initial risk screening level (IRSL).
2. 40 CFR 60.92(a)(2) establishes an opacity requirement applicable to each hot mix asphalt facility. This opacity requirement does not appear within the draft permit. EGLE should include the necessary opacity limit in the permit and incorporate opacity testing requirements consistent with 40 CFR 60.93. To ensure ongoing compliance and practical enforceability of this limit, EGLE should also establish a periodic (at least quarterly) opacity testing requirement applicable to the affected facility.
3. EUHMAPLANT Special Condition (SC) V.2 – V.4 lists the general test methods Ajax is to use to ensure compliance with the applicable permit conditions. The current draft permit only contains general citations to the appendices containing relevant test methods for Parts 60, 61, and 63. We recommend that EGLE specify in the permit the particular test method protocols for each pollutant that Ajax will be using to ensure compliance once the facility is constructed and operating. The permit can include a provision that requires EGLE approval of the test plan submitted by the permittee prior to testing, but approval of modifications to EPA test methods, as found in the appendices to Parts 60, 61, and 63, can only be done by EPA. EPA is available to assist EGLE in determining the appropriate test methods for each pollutant in order for Ajax to ensure compliance with the permit limit conditions.
4. EUHMAPLANT SC V.5 requires particulate matter testing pursuant to 40 CFR Part 60 Subparts A and I. Although this condition incorporates the testing required by the federal requirement, permit condition SC V.5 does not require periodic testing to determine compliance with the particulate matter emission limit in 40 CFR 60.92. To ensure ongoing compliance with the emission limit and improve enforceability of the NSPS Subpart I PM limit, we request that the permit include periodic PM testing performed according to the procedures included within 40 CFR 60.93.

5. FGFACILITY SC I.3 and I.4 contains facility-wide general limits on hazardous air pollutants (HAPs) for individual and aggregate HAPs of less than 8.9 and 22.5 tons per year, respectively, on a 12-month rolling average. The monitoring and recordkeeping requirements for these conditions (FGFACILITY SC VI.2) only state that the permittee is required to use emission calculation records to ensure compliance with the limits. We request the permit specify the methodology Ajax will use to demonstrate compliance with the HAP limits, and that the permit record include an explanation of how this methodology will ensure that HAP emissions remain below the major source threshold.
6. EUHMAPLANT SC V.1 and V.2 requires the permittee to verify via stack testing carbon monoxide (CO) and toxic air pollutant emissions upon EGLE's request. This condition does not require periodic testing to determine compliance with the hourly CO emission limit established in SC I.8, nor does it require periodic testing to determine compliance with the air toxics emission limits established in SCs I.14 through I.25. We request that you require periodic testing to determine compliance with the emission limits in SCs I.8 and I.15 through I.25. Periodic testing would help ensure that the source is complying with its CO and air toxics emission limits, which improves the practical enforceability of each limit and further ensures that the local community is not subjected to emissions exceeding the corresponding limit.
7. EUHMAPLANT SC V.3 requires a one-time test to verify PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, and lead emissions from the plant. EUHMAPLANT SC V.4 is a similar requirement that applies when the source combusts recycled used oil (RUO) and includes testing for SO<sub>2</sub> emissions. It is not clear whether a one-time test ensures that each emission limit is enforceable as a practical matter, however, as it is unclear whether emissions vary over time or with the type of asphalt being produced or fuel being combusted, suggesting that periodic testing may be appropriate to ensure ongoing compliance with each limit. We request that you revise SC V.3 and V.4 to require periodic testing to better ensure that the PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, lead, and SO<sub>2</sub> emission limits are enforceable as a practical matter. For any pollutant where EGLE determines one-time testing is sufficient, we request that EGLE provide justification as part of the permit record.
8. EUYARD SC I.2 restricts all visible emissions from the pile when winds are below 12 miles per hour (mph) and limits opacity to 20% when winds exceed 12 mph. Since the modeling analysis relies on a windspeed threshold that exceeds approximately 11.50 mph,<sup>1</sup> we recommend that you revise this condition to apply to winds that are below 11.50 mph. Also, the draft permit does not require the permittee to perform periodic visible emissions monitoring when winds are below 12 mph nor to quantify opacity when winds are at least 12 mph. To ensure ongoing compliance with the visible emissions requirements and to ensure practical enforceability of the opacity limit, we request that you incorporate periodic visible emissions monitoring and periodic opacity monitoring to evaluate and quantify fugitive dust emissions.
9. The fugitive dust control plan in Appendix A requires the permittee to maintain piles to prevent fugitive dust consistent with EUYARD SC I.1 (see Appendix A, condition 7.b). As

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<sup>1</sup> 5.14 m/s = 11.50 mph.

written, it is unclear what fugitive dust control measures will be implemented to prevent fugitive dust emissions from the pile. EUYARD SC I.1 appears to apply to all roads and unpaved travel surfaces, not the piles. To ensure the enforceability of the fugitive dust control plan and SC III.1, we request that you specify the measures that will be employed to control fugitive dust from the mineral aggregate piles. We request that you require each material storage pile to be covered or enclosed to mitigate potential fugitive dust emissions. In addition to reducing fugitive particulate emissions, covered piles may also require less water to control fugitives, potentially reducing the amount of fuel required to dry aggregate and other materials to specification. For any uncovered piles, we request that you specify the conditions which require the application of water or other chemical wetting agents or other methods that may be required to control fugitive emissions. For active piles, we request that the fugitive dust control plan specify the measures the permittee will employ to minimize fugitive dust emissions. Once these control measures have been identified, the fugitive dust control plan should be updated to require recordkeeping to ensure any fugitive dust control measures have been implemented.

10. EUYARD SC IV.1 requires the applicant to monitor wind speeds to determine compliance with the applicable visible emissions requirement in SC I.2. However, neither the fugitive dust control plan in Appendix A nor the draft permit section EUYARD require the permittee to implement fugitive dust control measures when winds are measured at or above 12 mph. To ensure fugitive dust is minimized when winds are above 12 mph and to better ensure compliance with the opacity limit in SC I.2, we request that you require the implementation of fugitive dust control measures when measured winds exceed 12 mph. We further recommend implementing fugitive dust control measures when measured winds are near, but do not exceed, 12 mph to mitigate potential fugitive dust emissions and further ensure compliance with the opacity limit.
11. The PM<sub>10</sub> and PM<sub>2.5</sub> modeling analyses consider one year of meteorological data instead of five years and considers emissions from the larger pile when winds for a particular hour exceed 5.14 m/s (approximately 11.50 mph). We are concerned that the applicant's modeling analysis may underestimate ambient particulate impacts associated with this project. We recommend reevaluating the modeling analysis to ensure that the project's ambient PM<sub>10</sub> and PM<sub>2.5</sub> impacts are not underestimated.
12. EUHMAPLANT SC V.1 requires the permittee to verify and quantify odor emissions upon EGLE's request. We recommend that EGLE evaluate whether recurring odor emission testing is appropriate pursuant to R 336.2001(1)(c). Recurring odor emission testing would allow EGLE to better determine compliance with R 336.1901 and more readily address the local community's potential odor concerns.
13. We recommend that EGLE consider whether it has the authority or discretion to include in the permit a requirement that the results of recurring compliance testing be made available to the public on an easily accessible website. The public posting of, e.g., the results of odor and opacity testing, virgin aggregate/RAP continuous monitoring (required by EU HMAPLANT SC VI.2), particulate and HAP emission testing, and wind speed measurements (required by EU HMAPLANT SC VI.1), would ensure transparency for the affected community.



14. Additional justification should be provided in the permit record to support the air quality analysis and the applicant's use of wind speed thresholds as it applies to the storage pile. Although the applicant cites Wisconsin's Air Dispersion Modeling Guideline as support, we note that Wisconsin's guideline does not provide justification for the approach and is nonbinding on other air permitting authorities. EGLE, as the air permitting authority for this action, has the discretion and authority to request certain air quality analyses for minor NSR permit applications. Michigan's R 336.1241, a requirement approved into Michigan's state implementation plan, requires EGLE to follow procedures and measures listed in the *Guideline on Air Quality Models* at 40 CFR Part 51 Appendix W (Appendix W). In addition to establishing certain requirements and recommendations applicable to NAAQS compliance demonstrations, Appendix W Section 1.0 encourages the use of sound scientific judgment in an air quality analysis and considers the judgment of meteorologists, scientists, and analysts essential. For this permit action, the analysis EGLE conducted and the judgment it exercised as part of the decision-making process should be fully documented within the permit record. Should EGLE choose to allow this approach for any proposed pile, the approach should be evaluated on a case-specific basis that is well documented within the permit record.
15. For all pollutants, the dispersion modeling conducted for this permit relies on one year of National Weather Service (NWS) meteorology collected from Bishop International Airport. Appendix W Section 8.4.2(e) recommends acquiring enough meteorological data to ensure that worst case meteorological conditions are adequately represented in the model results and requires the use of 5 years of representative NWS data. We request that you conduct the criteria pollutant and TAC analysis using 5 years of meteorological data. We recognize that R 336.1241 provides EGLE discretion to allow the use of only 1 year of NWS data for nonmajor PTIs.<sup>2</sup> The PM<sub>10</sub> and PM<sub>2.5</sub> analyses restrict the hours that the pile may emit fugitives based on hourly wind speeds, suggesting that a larger meteorological database may be necessary to capture worst case meteorological conditions. The TAC analysis may also be improved to capture worst case meteorological conditions that may not be present in one year of NWS data. Modeling based on 5 years of meteorological data increases the likelihood that the worst-case meteorological conditions are considered as part of this analysis and would be consistent with NAAQS analyses conducted for other regulatory purposes.
16. Dispersion modeling for particulate emissions relies on a critical wind speed threshold of approximately 11.50 mph for the purpose of considering fugitive emissions from the pile. From information included in the permit record, it appears that the applicant analyzed the daily fastest mile and daily surface friction velocity. However, it is unclear whether the analysis considers hourly wind speeds and sub-hourly gusts. It is not clear whether the modeling excludes emissions from the pile during hours where gusts exceed the critical wind speed threshold. AP-42 Section 13.2.5.2, a document cited by the applicant, suggests that "estimated emissions should be related to the gusts of the highest magnitude" and that "peak

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<sup>2</sup> R 336.1241 states in relevant part that "[...] the demonstration may be based on the maximum ambient predicted concentration using the most recent calendar year of meteorological data from a representative national weather service [...] station."

winds can significantly exceed the daily fastest mile.”<sup>3</sup> This suggests that gusts play a large role in fugitive dust emissions and should be evaluated as part of this analysis. The meteorology used in the modeling analysis is based on 1-minute National Weather Service (NWS) data, enabling an analysis of sub-hourly winds. We recommend that the applicant analyze the 1-minute data to determine whether certain hours contain sub-hourly gusts exceeding the critical wind threshold to further ensure that the analysis does not underestimate ambient PM<sub>10</sub> and PM<sub>2.5</sub> impacts.

17. The applicant cites several documents suggesting that the critical wind speed threshold for the pile is 12 mph. However, it is unclear whether and to what extent the stockpiles analyzed in each document are representative of the applicant’s proposed pile. Although the information provided in each document may be helpful to estimate emissions for applicability purposes, it is less clear whether this information is sufficient to determine the critical wind threshold for the proposed stockpile. None of the documents appear to analyze asphalt plants in particular. Would the applicant’s proposed pile contain material with the same particle size distribution as that analyzed within each cited document? Are there other asphalt plant pile parameters that may affect the critical wind speed threshold that are not reflected in the cited documents, such as moisture content or how well each pile is mixed? We recommend that the applicant evaluate the composition of the proposed pile to further justify whether the comparison is adequate. Lack of a case-specific analysis of the composition of the proposed pile at the source may understate fugitive particulate emissions from the pile, potentially underestimating the modeled impacts attributed to the pile.
18. It is not clear whether the modeling considered other activities that may generate fugitive emissions from the pile. The analysis offered by the applicant appears to focus solely on wind-blown emissions without considering how working the pile may affect the generation of fugitive particulate emissions. We recommend that the applicant address potential fugitive emissions that may be generated while the source works the pile and evaluate whether the current analysis adequately evaluates emissions generated at these times. The permit does not otherwise restrict the applicant from working the pile, suggesting that fugitive emissions associated with working the pile should be included as part of the analysis.
19. The modeling analysis excludes receptors within the proposed property line. Section 6.1.3.1 of the December 21, 2020 application states that the applicant will “prevent access to the property by the general public through a combination of fencing, berms, trees, and shrubs” around the property line. Given the lack of further detail in the application, it is unclear whether this combination of measures as stated within the application would be effective in precluding access to the land by the general public. Appendix W section 9.2.2 recommends the placement of receptors throughout the modeling domain. The December 2, 2019 Revised Policy on Exclusions from Ambient Air<sup>4</sup> states that receptors may be excluded over land owned or controlled by the stationary source “where the source employs measures, which may include physical barriers, that are effective in precluding access to the land by the

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<sup>3</sup> AP-42 Chapter 13.2.5 – Industrial Wind Erosion is available online at [https://www.epa.gov/sites/default/files/2020-10/documents/13.2.5\\_industrial\\_wind\\_erosion.pdf](https://www.epa.gov/sites/default/files/2020-10/documents/13.2.5_industrial_wind_erosion.pdf).

<sup>4</sup> The Revised Policy on Ambient Air is available online at [https://www.epa.gov/sites/default/files/2019-12/documents/revised\\_policy\\_on\\_exclusions\\_from\\_ambient\\_air.pdf](https://www.epa.gov/sites/default/files/2019-12/documents/revised_policy_on_exclusions_from_ambient_air.pdf).

general public.” We recommend that the applicant identify where each proposed measure will be employed so that EGLE can evaluate whether the proposed measures effectively preclude the general public’s access to land owned or controlled by the proposed source.

20. The proposed fugitive dust controls described by the applicant include “the presence of berms (approximately 7 feet tall), trees on top of those berms (approximately an additional 7 feet tall when planted), and the fence next to the berm.” We support the implementation of berms and windbreaks to mitigate fugitive dust emissions from the source. However, neither the draft permit nor fugitive dust control plan requires the applicant to install and maintain berms, windbreaks, and covered piles to control fugitive dust emissions. We recommend that EGLE include enforceable permit conditions requiring the source to implement and maintain the selected fugitive dust control measures such as berms, windbreaks, and covered piles.
21. The TAC analysis uses the results of generic TAC modeling to estimate the TAC impacts in relation to the appropriate ITSL or IRSL. The generic TAC modeling result is based on modeled impacts from the drum dryer stack. Although most TAC emissions are emitted from the drum dryer stack, TACs are also emitted from the silo heater, silo filling and loadout processes, and the asphalt cement storage tank. We recommend that you consider modeling each process or emission unit that does not exhaust to the drum dryer stack to avoid underestimating TAC impacts. Dispersion characteristics may differ depending upon the process, potentially resulting in underestimated TAC impacts where a given process has worse dispersion characteristics than the drum dryer stack.
22. Although the NAAQS and PSD increment analysis considers the impact of fugitive emissions from several sources, it is unclear whether the TAC analysis considers fugitive emissions from similar sources. Are there any fugitive TAC emissions that should be considered as part of the TAC analysis? We suggest that you either revise the TAC analysis to include fugitive TACs not already considered or provide justification explaining why fugitive emissions do not need to be included in the analysis.
23. EUHMAPLANT SC II.4 limits recycled asphalt pavement (RAP) to a maximum of 50 percent on a monthly average. We recommend EGLE require compliance with this limit on a shorter-term basis than monthly (such as daily). We note that the draft permit requires the source to continuously monitor the RAP feed rate (see EUHMAPLANT SC VI.2), suggesting that the permittee would already collect data that can be used to determine compliance with the limit on a shorter-term basis. AP-42 section 11.1.1.3 suggests that RAP can be processed at ratios up to 50 percent with little or no observed effect upon emissions. AP-42 is silent with respect to emissions above the 50 percent ratio and does not differentiate between averaging times.
24. EUHMAPLANT SC I.4 through I.7 include a reference to footnote c. However, footnote c does not appear to be included within the emission limit table. We request that you specify footnote c or revise each special condition to remove the reference to this footnote.
25. EUHMAPLANT SC I.4 and I.6 each cite 40 CFR 52.21 (c) and (d) as an underlying applicable requirement. We recommend that you verify whether each special condition cites

the appropriate underlying authority. We note that Michigan has a SIP-approved version of each requirement at R 336.2803 and R 336.2804, respectively.

26. EUHMAPLANT SC II.1 allows the permittee to burn recycled used oil (RUO). We recommend that the permittee consider not using RUO as a fuel for the proposed source. Although EGLE has established requirements that apply when combusting RUO,<sup>5</sup> eliminating the use of RUO as a fuel could reduce air toxics and sulfur impacts on the local community. Should the permittee choose to combust RUO as part of this process, we recommend that the permittee or EGLE analyze the additional impact combusting RUO could have on the local community over the impact of using other fuels such as natural gas.
27. EUHMAPLANT SC IV.1 requires continuous pressure drop monitoring for the proposed baghouse. We request that EGLE consider the use of a bag leak detection system (BLDS). BLDS would help verify that the fabric filters are not leaking or developing a leak. A BLDS, combined with the requirement to operate the baghouse in a satisfactory manner, would help ensure that the baghouse is operating properly, enable the permittee to react promptly to leaking bags, and further ensure compliance with the particulate matter special conditions.

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<sup>5</sup> See EUHMAPLANT SC II.2, SC III.4, SC V.4, and the RUO compliance monitoring plan in Appendix D.