



Air Quality Construction Permit

Permit Number: 17-A-298

Plant Number: 70-01-004

Company: Grain Processing Corporation

Contact Person:
Mick Durham
Director Environmental Services

Responsible Party:
Ron Zitzow
Senior VP of Operations

(563) 264-4569
mick.durham@grainprocessing.com

1600 Oregon Street
Muscatine, IA 52761

Permitted Equipment

Emission Point ID: EP296.0 (North)

Emission Unit(s) and Control Equipment:

EU ID	Description	Maximum Rated Capacity	Control Equipment Description and ID
2801.0	#1 Wet Germ Transfer System with Product Recovery Cyclone (CE2801-1)	6.65 tons/hr dry germ	See Condition 3
2802.0	#1 Germ Dryer (North Top) with Product Recovery Cyclone (CE2802-1)	6.65 tons/hr dry germ	
2802.1	#2 Germ Dryer (North Bottom) with Product Recovery Cyclone (CE2802-1)	13.3 tons/hr dry germ	

Equipment Location: 1600 Oregon Street
Muscatine, IA 52761

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Project Number	Project Description	Stack Testing	Issuance Date
17-028	Combine EP14.0 and EP15.0; Install New Scrubber	Yes	04/12/18

Under the Direction of the Director of the
Department of Natural Resources

PERMIT CONDITIONS

1. Emission Limits

The owner or operator is required to report all emissions as required by law, regardless of whether a specific emission limit has been established in this permit. The following emission limits shall not be exceeded:

Pollutant	lb/hr ¹	tons/yr ²	Other Limits	Reference/Basis
Particulate Matter (PM) – State	0.96 ³	NA	0.1 gr/dscf	567 IAC 23.4(7)
PM ₁₀	0.96 ⁴	NA	NA	NA
PM _{2.5}	0.60 ^{4,5}	NA	NA	NAAQS
Opacity	NA	NA	40% ^{6,7}	567 IAC 23.3(2)“d”
Sulfur Dioxide (SO ₂)	3.8 ⁸	NA	500 ppm _v	RACT, 567 IAC 23.3(3)“e”
Volatile Organic Compounds (VOC)	9.6 ^{9,10}	NA	NA	NA

- ¹ The emission limit is expressed as the average of three (3) runs.
- ² The emission limit is based on a twelve (12) month rolling total.
- ³ The PM emission limit maintains emission limits established for EU2802.0 (Dryer #1) and EU2802.1 (Dryer #2) in projects 79-222 and 79-265 to keep projects minor for LAER.
- ⁴ The limits restrict potential to emit below PSD significance levels, and Project 17-028 is considered a minor modification for the purposes of PSD.
- ⁵ The limit for PM_{2.5} emissions is established to address the “Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision” for PM_{2.5} published in the Federal Register (76 FR 9706) on February 22, 2011.
- ⁶ The emission limit is based on a six (6) minute average.
- ⁷ An exceedance of the indicator opacity of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
- ⁸ The SO₂ limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO₂ primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).
- ⁹ VOC emission limit established to maintain project 17-028 below significant net emissions increase for purposes of PSD review.
- ¹⁰ Requested emission limit maintains project 17-028 (#1 Germ Transfer, #1 Germ Dryer, #2 Germ Dryer (EU2801.0, EU2802.0, EU2802.1)) below PSD significance rate.

2. Compliance Demonstration(s)

Compliance Demonstration Table

Pollutant	Compliance Methodology	Frequency	Test Run Time	Test Method
PM – State	Performance Test	Once Every 3 Calendar Years ¹	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM ₁₀	Performance Test ²	Once Every 3 Calendar Years ¹	1 hour	40 CFR 51, Appendix M, 201A with 202
PM _{2.5}	Performance Test ³	Once Every 3 Calendar Years ¹	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	None	NA	1 hour	40 CFR 60, Appendix A, Method 9
SO ₂	Performance Test	Once Every 3 Calendar Years ¹	1 hour	40 CFR 60, Appendix A, Method 6C
VOC	None	NA	1 hour	40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18

¹ After the initial performance test, performance testing for PM, PM₁₀, PM_{2.5}, and SO₂ shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM₁₀, PM_{2.5}, and SO₂ emission limits in Condition 1, the owner or operator may request to modify the performance testing frequency for PM, PM₁₀, PM_{2.5}, opacity, and SO₂.

² It is acceptable to test for PM and to assume that all PM emissions are PM₁₀ emissions.

The following emission units and control equipment are vented directly or indirectly through this emission point:

Emission Unit Description	Control Equipment	
#1 Wet Germ Transfer System with Product Recovery Cyclone (EU 2801.0)	Venturi Scrubber w/ Mist Eliminator (CE2802-2)	Spray Chamber Scrubber (CE2802-3)
#1 Germ Dryer (North Top) with Product Recovery Cyclone (EU 2802.0)		
#2 Germ Dryer (North Bottom) with Product Recovery Cyclone (EU 2802.1)		

4. Federal Standards

A. New Source Performance Standards (NSPS):

These emission units are not subject to any NSPS subparts at this time as there are no applicable subparts for its source category.

B. National Emission Standards for Hazardous Air Pollutants (NESHAP):

These emission units are not subject to any NESHAP subparts at this time as there are no applicable subparts for its source category.

5. Operating Requirements with Associated Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The total flowrate of the Venturi Scrubber's (CE2802-2) liquor shall be maintained at or above 130 gallons per minute.
 - i. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate to Venturi Scrubber (CE2802-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
 - ii. The owner or operator shall continuously collect and record the total liquor flow rate to the Venturi Scrubber (CE2802-2), in gallons per minute. If the liquor flow rate to the Venturi Scrubber (CE2802-2) falls below the value specified in Condition 5A, the owner or operator shall investigate the Venturi Scrubber (CE2802-2) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Venturi Scrubber (CE2802-2) is not in operation.
- B. The differential pressure drop across the Venturi Scrubber (CE2802-2) shall be maintained between 11 and 20 inches of water column.
 - i. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Venturi Scrubber (CE2802-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
 - ii. The owner or operator shall continuously collect and record the pressure drop across the Venturi Scrubber (CE2802-2), in inches of water column. If the pressure drop across the Venturi Scrubber (CE2802-2) falls outside the range specified in Condition 5B., the owner or operator shall investigate the Venturi Scrubber (CE2802-2) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Venturi Scrubber (CE2802-2) is not in operation.

- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.
- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked no later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met.

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. Information regarding this permit should be sent to the attention of the following individuals based on the type of information being submitted: change in ownership (Air Quality Bureau Records Center), permit correspondence (Construction Permit Supervisor), stack testing correspondence (Stack Test Coordinator), and reports and notifications (Compliance Unit Supervisor and DNR Field Office). The addresses are:

Air Quality Bureau Iowa Department of Natural Resources 502 E. 9 th Street Des Moines, IA 50319 Telephone: (515) 725-8200 Fax: (515) 725-9501	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
---	---

13. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

14. Permit History

Permit No.	Project No.	Description	Date	Stack Testing
		#1 Wet Germ Transfer System (EU2801.0)		
15-A-078	15-050	Establish PM, PM ₁₀ , PM _{2.5} and SO ₂ Emission Limits for a Grandfathered Unit	12/10/15	Yes
		#1 and #2 Germ Dryers (EU2802.0, EU2802.1)		
79-A-194	79-265	Original Permit	08/17/79	No
79-A-194-S1	95-266	Add SO ₂ Emission Limit	09/18/95	No
79-A-194-S2	15-050	Add PM ₁₀ and PM _{2.5} Emission Limits; Add Scrubber; Modify SO ₂ Limit; Modify EU Description	12/10/15	Yes

END OF PERMIT