

AIR POLLUTION CONTROL CONSTRUCTION PERMIT

EI FACILITY NO: 111003090

CONSTRUCTION PERMIT NO.: 11-POY-123

TYPE:

Construction Permit for Processes: B21, B22, P25, P26, P31, F99

In compliance with the provisions of Chapter 285, Wis. Stats., and Chapters NR 400 to NR 499, Wis. Adm. Code,

Name of Source: WPL, - Columbia Energy Center

Street Address: W8375 Murray Road,
Pardeeville, Columbia County, Wisconsin

Responsible Official, & Title: Jerald Lokenvitz, Plant Manager

is authorized to construct and initially operate a spray dryer absorber and a baghouse for each of Boiler B21 (Unit 1) and Boiler B22 (Unit 2), and two lime silos, and to expand the existing activated carbon injection (ACI) system installed in 2008 on Unit 2 to serve both Units 1 and 2 as described in plans and specifications dated July 29, 2011 through September 25, 2011, and November 4, 2011 in conformity with the conditions herein. The authority to construct, modify, replace and/or reconstruct any process covered in this Construction Permit expires thirty six (36) months from the date of issuance. This approved period to construct, modify, replace and/or reconstruct may be extended for up to 18 months upon request for cause, prior to expiration, unless otherwise specified by this construction permit. The conditions of this construction permit are permanent and may only be revised through a revision of the construction permit or through the issuance of a new construction permit. [s. 285.60(1), Wis. Stats.]

Conditions of the construction permit marked with an asterisk (*) have been created outside of the Wisconsin's federally approved State Implementation Plan (SIP) and are not federally enforceable.

This authorization requires compliance by the permit holder with the emission limitations, monitoring requirements and other terms and conditions set forth in Parts I and II hereof.

Dated at Fitchburg, Wisconsin _____ November 11, 2011 _____

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
For the Secretary

By _____ /s/ Thomas J. Roushar
Thomas J. Roushar
Environmental Engineer Supervisor

Part I

<p>B'. S11/B21 (Identified as Unit 1 for acid rain purposes) - Coal Fired Boiler - Rated at 5885 mmBtu per hour - Installed February 1971.^{1,2} A recycled solids silo and a waste solids silo also exhaust through the baghouse. The boiler also has the capacity to fire wood, petroleum contaminated soils and absorbents, boiler cleaning waste liquids and waste oil. Please see the additional requirements that relate to these alternate operating scenarios for the boiler in I.C., I.D., I.E. and I.F. of the Operation Permit 111003090-P21.</p>	
<p>Pollutant: 1. Particulate Matter, PM₁₀ and PM_{2.5} Emissions</p>	
<p>a. Limitations³:</p> <p>(1)(a) Particulate matter emissions may not exceed 0.025 pounds per million Btu heat input. [s. 285.65(7), Wis. Stats., s. NR 415.06(2)(c), Wis. Adm. Code, and Permit 11-POY-123]</p> <p>(1)(b) PM₁₀ emissions may not exceed 0.017 pounds per million Btu heat input. [s. 285.65(7), Wis. Stats., and Permit 11-POY-123]</p> <p>(1)(c) PM_{2.5} emissions may not exceed 0.0165 pounds per million Btu heat input. [s. 285.65(7), Wis. Stats., and Permit 11-POY-123]</p> <p>(2) The permittee shall only fire:</p> <p>(a) Coal, natural gas and #2 fuel oil as primary fuels in the boiler; and</p> <p>(b) Wood fuel, petroleum contaminated soils and absorbents, boiler cleaning waste liquids and waste oil as alternate fuels in the boiler. [ss. 285.65(3) and 285.63(1)(a), Wis. Stats.]</p> <p>See section I.C. for additional requirements that apply while firing wood in the boiler. See section I.D. for additional requirements that apply while firing petroleum contaminated soil in the boiler. See section I.E. for additional requirements that apply while firing boiler cleaning waste liquids in the boiler. See section I.F. for additional requirements that apply while firing waste oil in the boiler.</p>	
<p>b. Compliance Demonstration:</p> <p>(1) To demonstrate compliance with I.B'.1.a.(1)(a), the permittee shall conduct a compliance emission test within 90 days after the start of initial operation of the spray dryer absorber using USEPA Methods 5 or 201A (Wisconsin modified) and 202, or another method approved by the Department in writing, while operating at 100% capacity. During the test, the electrostatic precipitator shall be disabled, such that the test can show that the emission limit can be met without the electrostatic precipitator in operation. If operation at 100% capacity is not feasible, the source shall operate at a capacity level which is approved by the Department in writing. [s. NR 439.03, Wis. Adm. Code, and Permit 11-POY-123]</p> <p>(2) To demonstrate compliance with I.B'.1.a.(1)(b), the permittee shall conduct a compliance emission test within 90 days after the start of initial operation of the spray dryer absorber using USEPA Methods 201A and 202, or another method approved by the Department in writing, while operating at 100% capacity. During the test, the electrostatic precipitator shall be disabled, such that the test can show that the emission limit can be met without the electrostatic precipitator in operation. If operation at 100% capacity is not feasible, the source shall operate at a capacity level which is approved by the Department in writing. [s. NR 439.03, Wis. Adm. Code, and Permit 11-POY-123]</p> <p>(3) To demonstrate compliance with I.B'.1.a.(1)(c), the permittee shall conduct a compliance emission test within 90 days after the start of initial operation of the spray dryer absorber using USEPA</p>	<p>c. Test Methods, Recordkeeping, and Monitoring:</p> <p>(1)(a) Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Method 5 or 201A (Wisconsin modified), including condensible backhalf emissions (Method 202), shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code]</p> <p>(1)(b) Reference Test Method for PM₁₀ Emissions: Whenever compliance emission testing is required, US EPA Method 201A, including condensible backhalf emissions (Method 202), shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code]</p> <p>(1)(c) Reference Test Method for PM_{2.5} Emissions: Whenever compliance emission testing is required, US EPA Method 201A, including condensible backhalf emissions (Method 202), shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code]</p> <p>(2) The permittee shall retain copies of the results of the tests required by conditions I.B'.1.b.(1), (2), (3) and (4) at the facility. [s. NR 439.04(1)(a), Wis. Adm. Code]</p> <p>(3) The permittee shall keep monthly records of:</p> <p>(a) The type of each fuel fired in the boiler; and</p> <p>(b) The amount of each fuel fired in the boiler. [s. NR 439.04(1)(d), Wis. Adm. Code]</p>

1 Note: The requirements and emission limitations outlined in this section apply to the boiler at all times regardless of the fuel being fired.

2 The emissions unit consisting of the boiler and the spray dryer absorber has been modified as a part of this project warranting the application of NR 415.06(2)(c) and 431.05. However, the combustion portion of boiler has not been modified, and the fuel burned will not be changed because of this project. There will be no change in emissions due to combustion of fuel. As such, the proposed project will not result in the applicability of the New Source Performance Standard (NSPS) in ss. NR 440.19 and NR 440.20, Wis. Adm. Code.

3 Emission limits in (1)(a), (b) and (c) are proposed by the permittee to avoid PSD applicability for the project covered under Permit 11-POY-123.

B'. S11/B21 (Identified as Unit 1 for acid rain purposes) - Coal Fired Boiler - Rated at 5885 mmBtu per hour - Installed February 1971.^{1,2} A recycled solids silo and a waste solids silo also exhaust through the baghouse. The boiler also has the capacity to fire wood, petroleum contaminated soils and absorbents, boiler cleaning waste liquids and waste oil. Please see the additional requirements that relate to these alternate operating scenarios for the boiler in I.C., I.D., I.E. and I.F. of the Operation Permit 111003090-P21.

Methods 201A and 202, or another method approved by the Department in writing, while operating at 100% capacity. During the test, the electrostatic precipitator shall be disabled, such that the test can show that the emission limit can be met without the electrostatic precipitator in operation. If operation at 100% capacity is not feasible, the source shall operate at a capacity level which is approved by the Department in writing. [s. NR 439.03, Wis. Adm. Code, and Permit 11-POY-123]

(4) The following compliance emission tests of the boiler shall be conducted to demonstrate compliance with the particulate matter, PM₁₀ and PM_{2.5} emission limits in condition I.B'.1.a.(1):

- (a) Testing required in I.B'.1.b.(1), (2) and (3) shall be conducted every 24 months as long as this permit remains valid;
- (b) Each biennial test shall be performed within 90 days of the anniversary date of the issuance of this permit or within 90 days of an alternate date specified by the Department in writing;
- (c) The permittee may request and the Department may approve a waiver from the required biennial testing provided the results of the most recently completed test demonstrate that particulate matter emissions are 50 percent or less of the applicable limitations in condition I.B'.1.a.(1);
- (d) This testing shall be conducted in accordance with Condition No. I.ZZZ.1.a(6) of this construction permit. [ss. NR 439.07 and NR 439.075(2)(a)1. and (3)(b), Wis. Adm. Code, and Permit 11-POY-123]

(5) The permittee shall operate a fabric filter baghouse control device on the boiler to control particulate matter emissions whenever the boiler is in operation. [s. 285.63(1)(a), Wis. Stats., and Permit 11-POY-123]

(6) The permittee shall install, operate, and maintain the bag leak detection system according to paragraphs (a) through (c) of this condition.

(a) Each bag leak detection system must meet the specifications and requirements in following paragraphs (i) through (viii).

- (i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.
- (ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator 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 sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (iv) below, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(4) (a) The permittee shall develop and submit to the Department, within 180 days after the start of initial operation of the spray dryer absorber, for approval of a site-specific monitoring plan for each bag leak detection system. The permittee shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (i) through (vi) below.

- (i) Installation of the bag leak detection system;
 - (ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;
 - (iii) Operation of the bag leak detection system, including quality assurance procedures;
 - (iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;
 - (v) How the bag leak detection system output will be recorded and stored; and
 - (vi) Corrective action procedures as specified in paragraph (b) below. In approving the site-specific monitoring plan, the Department may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.
- (b) For each bag leak detection system, the permittee shall initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (a)(vi) above, the permittee shall alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:
- (i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM, PM₁₀ or PM_{2.5} 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 fabric filter compartment;
 - (v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
 - (vi) Shutting down the boiler. [s. NR 406.10, Wis. Adm. Code, s.

B'. S11/B21 (Identified as Unit I for acid rain purposes) - Coal Fired Boiler - Rated at 5885 mmBtu per hour - Installed February 1971.¹² A recycled solids silo and a waste solids silo also exhaust through the baghouse. The boiler also has the capacity to fire wood, petroleum contaminated soils and absorbents, boiler cleaning waste liquids and waste oil. Please see the additional requirements that relate to these alternate operating scenarios for the boiler in I.C., I.D., I.E. and I.F. of the Operation Permit 111003090-P21.

(iv) In the initial adjustment of the bag leak detection system, the permittee shall 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) Following initial adjustment, the permittee may not adjust the averaging period, alarm set point, or alarm delay time without approval from the Department except as provided in paragraph (vi) below.

(vi) Once per quarter, the permittee may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by I.B'.1.c.(4). [s. NR 406.10, Wis. Adm. Code, s. 285.65(3), Wis. Stats., and Permit 11-POY-123]

(7) The permittee shall perform internal inspections of the baghouse not less than once every 18 months to ensure that the control equipment is operating properly. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code]

(8) The permittee shall prepare and follow a plan for periodical internal inspections of the boiler and boiler efficiency optimization. This plan shall include the frequency of these inspections and the items to be inspected. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code]

(9) The permittee shall install, maintain and operate instruments to monitor the pressure drop across the baghouse control device. [s. NR 439.055(1)(a), Wis. Adm. Code, and Permit 11-POY-123]

(10) The permittee shall submit to the Department, within 180 days after the start of initial operation of the spray dryer absorber, the operating range of the pressure drop across the baghouse control device. [s. NR 439.055(1)(a), Wis. Adm. Code, and Permit 11-POY-123]

(11) Stack Parameters

- (a) Stack height shall be at least 500 feet above ground level.
- (b) The stack outlet diameter may not be greater than 21 feet.
- (c) The stack may not be equipped with a rainhat or other device which impedes the upward flow of the exhaust gases. [s. 285.65(3), Stats. and s. NR 406.10, Wis. Adm. Code, and 11-POY-123]

285.65(3), Wis. Stats., and Permit 11-POY-123]

(5) The permittee shall keep records of:

- (a) The date, time and initials of person performing the inspections required in condition I.B'.1.b.(7);
- (b) A list of the items inspected; and
- (c) Any maintenance or repairs performed as a result of these inspections. [s. NR 439.04(1)(d), Wis. Adm. Code]

(6) The permittee shall keep records of:

- (a) The date, time and initials of person performing the inspections required in condition I.B'.1.b.(7);
- (b) A list of the items inspected;
- (c) Any maintenance or repairs performed as a result of these inspections;
- (d) The results of the boiler efficiency optimization inspection; and
- (e) The measures taken to optimize the boiler. [s. NR 439.04(1)(d), Wis. Adm. Code]

(7) The permittee shall record the pressure drop across the baghouse once for every 8 hours of operation or once per day, whichever yields the greater number of measurements. [s. NR 439.055(2)(b)1., Wis. Adm. Code, and Permit 11-POY-123]

(8) The pressure drop monitoring device shall be accurate to within 5% of the pressure drop being measured or within ±1 inch of water column, whichever is greater. [s. NR 439.055(3)(b), Wis. Adm. Code, and Permit 11-POY-123]

(9) The baghouse control device pressure drop monitoring device shall be calibrated at least once per year, or at a frequency based on good engineering practice as established by operational history, whichever is more frequent. [s. NR 439.11(1)(b) and s. NR 439.055(4), Wis. Adm. Code, and Permit 11-POY-123]

<p>B'. S11/B21 (Identified as Unit 1 for acid rain purposes) - Coal Fired Boiler - Rated at 5885 mmBtu per hour - Installed February 1971.^{1,2} A recycled solids silo and a waste solids silo also exhaust through the baghouse. The boiler also has the capacity to fire wood, petroleum contaminated soils and absorbents, boiler cleaning waste liquids and waste oil. Please see the additional requirements that relate to these alternate operating scenarios for the boiler in I.C., I.D., I.E. and I.F. of the Operation Permit 111003090-P21.</p>	
<p>Pollutant: 2. Visible Emissions</p>	
<p>a. Limitations:</p> <p>(1) Opacity may not exceed 20% or number 1 of the Ringlemann chart.</p> <p>(2) When combustion equipment is being cleaned or a new fire started, emissions may exceed number 1 of the Ringlemann chart or 20% opacity but may not exceed number 4 of the Ringlemann chart or 80% opacity for 6 minutes in any one hour. Combustion equipment may not be cleaned nor a fire started more than 3 times per day.⁴</p> <p>(3) Emissions may exceed number 1 of the Ringlemann chart or 20% opacity for stated periods of time, as permitted by the department, for such purpose as an operating test, use of emergency or reserve equipment, or other good cause, provided no hazard or unsafe condition arises. Such permission may only be granted in writing. [s. NR 431.05(1)&(2), Wis. Adm. Code, and Permit 11-POY-123]</p>	
<p>b. Compliance Demonstration:</p> <p>(1) The permittee shall calibrate, maintain and operate a continuous monitoring system which meets the performance specifications of condition I.B'.2.b.(2) for the measurement of opacity from stack S11.⁵ [s. NR 439.095(1)(f), Wis. Adm. Code]</p> <p>(2) The permittee shall calibrate maintain and operate the continuous emission monitor required by condition I.B'.2.b.(1) in accordance with the performance specifications in 40 CFR part 75, Appendices A to I and Performance Specification 1 in 40 CFR part 60, Appendix B. [ss. NR 439.09(1) and NR 439.095(6), Wis. Adm. Code]</p> <p>(3) The continuous emission monitor required by condition I.B'.2.b.(1) shall follow a quality control and quality assurance plan, as approved by the Department. [ss. NR 439.09(8) and NR 439.095(6), Wis. Adm. Code]</p> <p>(4) The permittee shall prepare and submit to the Department an updated Start-up and Shut-down Plan for the boiler. This plan shall be submitted prior to the initial operation of the spray dryer absorber. The plan shall define normal start-up and shut-down procedures, including the normal duration of start-up and shut-down periods. [s. NR 407.09(4)(a), Wis. Adm. Code]</p>	<p>c. Test Methods, Recordkeeping, and Monitoring:</p> <p>(1) <u>Reference Test Method for Visible Emissions:</u> Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code]</p> <p>(2) The continuous opacity monitor required by condition I.B'.2.b.(1) shall complete one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. [s. NR 439.09(9)(a), Wis. Adm. Code]</p> <p>(3) The permittee shall submit quarterly excess emission reports to the Department within 30 days following the end of each calendar quarter. [s. NR 439.09(10), Wis. Adm. Code]</p> <p>(4) Excess emissions for opacity are, any 6 minute period during which the average opacity exceeds the limitation in condition I.B'.2.a.(1). [s. NR 439.09(10)(b), Wis. Adm. Code]</p> <p>(5) The excess emission reports required by condition I.B'.2.c.(3) shall be submitted in accordance with Condition No. I.ZZZ.1.a(7) of this construction permit. [s. NR 439.09(10)(a), Wis. Adm. Code]</p>

⁴ When combustion equipment is being cleaned or a new fire started and opacity exceeds 20%, one 6-minute exceedance per hour may be exempt, but no more than 3 exemptions per day are allowed. This provision does not restrict the number of cleanings or the number of fires that may be started in any day, only the number of exemptions that are allowed in any one day.

⁵ The permittee is exempt from the biennial opacity compliance tests required by s. NR 439.075(3)(b), Wis. Adm. Code, provided they operate a continuous opacity monitor that meets the performance specification requirements of s. NR 439.09, Wis. Adm. Code, pursuant to s. NR 439.075(4)(a)2., Wis. Adm. Code.

BA. S25/P25 Lime Silo Bin Vent For Unit 1 - Permitted 2011	
Pollutant: 1. Particulate Matter/PM₁₀/PM_{2.5} Emissions	
a. Limitations:	
(1) Emissions may not exceed 6.4×10^{-2} pounds per hour. [s. NR 404.08(8) and (9), Wis. Adm. Code, s. 285.65(7), Wis. Stats., and Permit 11-POY-123]	
b. Compliance Demonstration:	c. Test Methods, Recordkeeping, and Monitoring:
(1) The permittee shall operate a fabric filter control device on the lime silo to control particulate matter/PM ₁₀ /PM _{2.5} emissions whenever the silo is being filled or operated. [s. 285.63(1)(a), Wis. Stats., and Permit 11-POY-123]	(1) Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Method 5, including condensible backhalf emissions, shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code]
(2) The permittee shall perform internal inspections of the fabric filter control device not less than once every 18 months to ensure that the control equipment is operating properly. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code]	(2) The permittee shall record the pressure drop across the fabric filter once for every 8 hours of operation or once per day, whichever yields the greater number of measurements. [s. NR 439.055(2)(b)1., Wis. Adm. Code, and 11-POY-123]
(3) The permittee shall maintain at the facility a written copy of the emission guarantee from the fabric filter control device manufacturer or vendor that the emission limit in I.BA.1.a.(1) will be met at all times. [s. 285.65(3), and Permit 11-POY-123]	(3) The permittee shall keep records of all inspections, checks and any maintenance or repairs performed on the fabric filter control device, containing the date of the action, initials of inspector, and the results. [s. NR 439.04(1)(d), Wis. Adm. Code, and 11-POY-123]
(4) The permittee shall submit to the Department, within 30 days after the start of initial operation of the silo, the operating range of the pressure drop across the fabric filter control device. [s. NR 439.055(1)(a), Wis. Adm. Code, and Permit 11-POY-123]	(4) The pressure drop monitoring device shall be accurate to within 5% of the pressure drop being measured or within ± 1 inch of water column, whichever is greater. [s. NR 439.055(3)(b), Wis. Adm. Code, and Permit 11-POY-123]
(5) The permittee shall install, maintain and operate instruments to monitor the pressure drop across the fabric filter control device. [s. NR 439.055(1)(a), Wis. Adm. Code, and Permit 11-POY-123]	
(6) Stack Parameters	
(a) Stack height shall be at least 143 feet above ground level.	
(b) The stack outlet diameter may not be greater than 1 foot.	
(c) The stack may not be equipped with a rainhat or other device which impedes the upward flow of the exhaust gases. [s. 285.65(3), Stats. and s. NR 406.10, Wis. Adm. Code, and 11-POY-123]	
Pollutant: 2. Visible Emissions	
a. Limitations:	
(1) Opacity may not exceed 20% or number 1 of the Ringlemann chart. [s. NR 431.05, Wis. Adm. Code, and Permit 11-POY-123]	
b. Compliance Demonstration:	c. Test Methods, Recordkeeping, and Monitoring:
(1) The permittee shall comply with I.BA.1.b. [s. 285.65(3), Wis. Stat., and Permit 11-POY-123]	(1) Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code]
	(2) The permittee shall comply with I.BA.1.c.

BB. S31/P31 PAC Silo Bin Vent - Permitted 2011	
Pollutant: 1. Particulate Matter/PM₁₀/PM_{2.5} Emissions	
a. Limitations:	
(1) Emissions may not exceed 0.13 pounds per hour. [s. NR 404.08(8) and (9), Wis. Adm. Code, s. 285.65(7), Wis. Stats., and Permit 11-POY-123]	
b. Compliance Demonstration:	c. Test Methods, Recordkeeping, and Monitoring:
(1) The permittee shall operate a fabric filter control device on the PAC silo to control particulate matter/PM ₁₀ /PM _{2.5} emissions whenever the silo is being filled or operated. [s. 285.63(1)(a), Wis. Stats., and Permit 11-POY-123]	(1) Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Method 5, including condensable backhalf emissions, shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code]
(2) The permittee shall perform internal inspections of the fabric filter control device not less than once every 18 months to ensure that the control equipment is operating properly. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code]	(2) The permittee shall record the pressure drop across the fabric filter once for every 8 hours of operation or once per day, whichever yields the greater number of measurements. [s. NR 439.055(2)(b)1., Wis. Adm. Code, and 11-POY-123]
(3) The permittee shall maintain at the facility a written copy of the emission guarantee from the fabric filter control device manufacturer or vendor that the emission limit in I.BB.1.a.(1) will be met at all times. [s. 285.65(3), and Permit 11-POY-123]	(3) The permittee shall keep records of all inspections, checks and any maintenance or repairs performed on the fabric filter control device, containing the date of the action, initials of inspector, and the results. [s. NR 439.04(1)(d), Wis. Adm. Code, and 11-POY-123]
(4) The permittee shall submit to the Department, within 30 days after the issuance of this construction permit, the operating range of the pressure drop across the fabric filter control device. [s. NR 439.055(1)(a), Wis. Adm. Code, and Permit 11-POY-123]	(4) The pressure drop monitoring device shall be accurate to within 5% of the pressure drop being measured or within ±1 inch of water column, whichever is greater. [s. NR 439.055(3)(b), Wis. Adm. Code, and Permit 11-POY-123]
(5) The permittee shall install, maintain and operate instruments to monitor the pressure drop across the fabric filter control device. [s. NR 439.055(1)(a), Wis. Adm. Code, and Permit 11-POY-123]	
(6) Stack Parameters	
(a) Stack height shall be at least 82 feet above ground level.	
(b) The stack outlet diameter may not be greater than 3 feet.	
(c) The stack may not be equipped with a rainhat or other device which impedes the upward flow of the exhaust gases. [s. 285.65(3), Stats. and s. NR 406.10, Wis. Adm. Code, and 11-POY-123]	
Pollutant: 2. Visible Emissions	
a. Limitations:	
(1) Opacity may not exceed 20% or number 1 of the Ringlemann chart. [s. NR 431.05, Wis. Adm. Code, and Permit 11-POY-123]	
b. Compliance Demonstration:	c. Test Methods, Recordkeeping, and Monitoring:
(1) The permittee shall comply with I.BB.1.b. [s. 285.65(3), Wis. Stat., and Permit 11-POY-123]	(1) Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code]
	(2) The permittee shall comply with I.BB.1.c.

<p>G'. S12/B22 (Identified as Unit 2 for acid rain purposes) - Coal Fired Boiler - Rated at 5885 mmBtu per hour - Installed 1975.⁶ A recycled solids silo and a waste solids silo also exhaust through the baghouse. The boiler also has the capacity to fire wood, petroleum contaminated soils and absorbents, and waste oil. Please see the requirements that relate to these alternate operating scenarios for the boiler in I.H., I.I. and I.J. of Operation Permit 111003090-P21.</p>	
<p>Pollutant: 1. Particulate Matter, PM10 and PM2.5 Emissions</p>	
<p>a. Limitations⁷:</p> <p>(1)(a) Particulate matter emissions may not exceed 0.0195 pounds per million Btu heat input. [s. 285.65(7), Wis. Stats., s. NR 440.19(3)(a)1., Wis. Adm. Code, s. NR 415.06(2)(c), Wis. Adm. Code, and Permit 11-POY-123] (1)(b) PM₁₀ emissions may not exceed 0.0175 pounds per million Btu heat input. [s. 285.65(7), Wis. Stats., and Permit 11-POY-123] (1)(c) PM_{2.5} emissions may not exceed 0.0175 pounds per million Btu heat input. [s. 285.65(7), Wis. Stats., and Permit 11-POY-123]</p> <p>(2) The permittee shall only fire: (a) Coal, natural gas and #2 fuel oil as primary fuels in the boiler; and (b) Wood fuel, petroleum contaminated soils and absorbents and waste oil as alternate fuels in the boiler. See section I.H. for additional requirements that apply while firing wood in the boiler. See section I.I. for additional requirements that apply while firing petroleum contaminated soil in the boiler. See section I.J. for additional requirements that apply while firing waste oil in the boiler. [ss. 285.65(3) and 285.63(1)(a), Wis. Stats.]</p>	
<p>b. Compliance Demonstration:</p> <p>(1) To demonstrate compliance with I.G'.1.a.(1)(a), the permittee shall conduct a compliance emission test within 90 days after the start of initial operation of the spray dryer absorber using USEPA Methods 5 or 201A (Wisconsin modified) and 202, or another method approved by the Department in writing, while operating at 100% capacity. During the test, the electrostatic precipitator shall be disabled, such that the test can show that the emission limit can be met without the electrostatic precipitator in operation. If operation at 100% capacity is not feasible, the source shall operate at a capacity level which is approved by the Department in writing. [s. NR 439.03, Wis. Adm. Code, and Permit 11-POY-123]</p> <p>(2) To demonstrate compliance with I.G'.1.a.(1)(b), the permittee shall conduct a compliance emission test within 90 days after the start of initial operation of the spray dryer absorber using USEPA Methods 201A and 202, or another method approved by the Department in writing, while operating at 100% capacity. During the test, the electrostatic precipitator shall be disabled, such that the test can show that the emission limit can be met without the electrostatic precipitator in operation. If operation at 100% capacity is not feasible, the source shall operate at a capacity level which is approved by the Department in writing. [s. NR 439.03, Wis. Adm. Code, and Permit 11-POY-123]</p> <p>(3) To demonstrate compliance with I.G'.1.a.(1)(c), the permittee shall conduct a compliance emission test within 90 days after the start of initial operation of the spray dryer absorber using USEPA Methods 201A and 202, or another method approved by the Department in writing, while operating at 100% capacity. During the test, the electrostatic precipitator shall be disabled, such that the test can show that the emission limit can be met without the electrostatic</p>	<p>c. Test Methods, Recordkeeping, and Monitoring:</p> <p>(1) The permittee shall retain copies of the results of the tests required by conditions I.G'.1.b.(1), (2) and (3) at the facility. [s. NR 439.04(1)(a), Wis. Adm. Code]</p> <p>(2) The permittee shall keep monthly records of: (a) The type of each fuel fired in the boiler; and (b) The amount of each fuel fired in the boiler. [s. NR 439.04(1)(d), Wis. Adm. Code]</p> <p>(3) (a) The permittee shall develop and submit to the Department, within 180 days after the start of initial operation of the spray dryer absorber, for approval of a site-specific monitoring plan for each bag leak detection system. The permittee shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (i) through (vi) below.</p> <p>(i) Installation of the bag leak detection system; (ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established; (iii) Operation of the bag leak detection system, including quality assurance procedures; (iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list; (v) How the bag leak detection system output will be recorded and stored; and (vi) Corrective action procedures as specified in paragraph (b) below. In approving the site-specific monitoring plan, the Department may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring</p>

⁶ Note: The requirements and emission limitations outlined in this section apply to the boiler at all times regardless of the fuel being fired.

⁷ Emission limits in (1)(a), (b) and (c) are proposed by the permittee to avoid PSD applicability for the project covered under Permit 11-POY-123..

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<p>precipitator in operation. If operation at 100% capacity is not feasible, the source shall operate at a capacity level which is approved by the Department in writing. [s. NR 439.03, Wis. Adm. Code, and Permit 11-POY-123]</p>	<p>plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.</p>
<p>(4) The following compliance emission tests of the boiler shall be conducted to demonstrate compliance with the particulate matter, PM₁₀ and PM_{2.5} emission limits in condition I.G'.1.a.(1):</p>	<p>(b) For each bag leak detection system, the permittee shall initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (a)(vi) above, the permittee shall alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:</p>
<p>(a) Testing required in I.G'.1.b.(1), (2) and (3) shall be conducted every 24 months as long as this permit remains valid;</p>	<p>(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM, PM10 or PM2.5 emissions;</p>
<p>(b) Each biennial test shall be performed within 90 days of the anniversary date of the issuance of this permit or within 90 days of an alternate date specified by the Department in writing;</p>	<p>(ii) Sealing off defective bags or filter media;</p>
<p>(c) The permittee may request and the Department may approve a waiver from the required biennial testing provided the results of the most recently completed test demonstrate that particulate matter emissions are 50 percent or less of the applicable limitations in condition I.G'.1.a.(1);</p>	<p>(iii) Replacing defective bags or filter media or otherwise repairing the control device;</p>
<p>(d) This testing shall be conducted in accordance with Condition No. I.ZZZ.1.a(6) of this construction permit. [ss. NR 439.07 and NR 439.075(2)(a)1. and (3)(b), Wis. Adm. Code, and Permit 11-POY-123]</p>	<p>(iv) Sealing off a defective fabric filter compartment;</p>
<p>(5) The permittee shall operate a fabric filter baghouse control device on the boiler to control particulate matter emissions whenever the boiler is in operation. [s. 285.63(1)(a), Wis. Stats., and Permit 11-POY-123]</p>	<p>(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or</p> <p>(vi) Shutting down the boiler. [s. NR 406.10, Wis. Adm. Code, s. 285.65(3), Wis. Stats., and Permit 11-POY-123]</p>
<p>(6) The permittee shall install, operate, and maintain the bag leak detection system according to paragraphs (a) through (c) of this condition.</p>	<p>(4) The permittee shall keep records of:</p> <p>(a) The date, time and initials of person performing the inspections required in condition I.G'.1.b.(7);</p> <p>(b) A list of the items inspected; and</p> <p>(c) Any maintenance or repairs performed as a result of these inspections. [s. NR 439.04(1)(d), Wis. Adm. Code]</p>
<p>(a) Each bag leak detection system must meet the specifications and requirements in following paragraphs (i) through (viii).</p>	<p>(5) The permittee shall keep records of:</p> <p>(a) The date, time and initials of person performing the inspections required in condition I.G'.1.b.(7);</p> <p>(b) A list of the items inspected;</p> <p>(c) Any maintenance or repairs performed as a result of these inspections;</p> <p>(d) The results of the boiler efficiency optimization inspection; and</p> <p>(e) The measures taken to optimize the boiler. [s. NR 439.04(1)(d), Wis. Adm. Code]</p>
<p>(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.</p>	<p>(6) <u>Reference Test Method for Particulate Matter Emissions:</u></p> <p>(a) Whenever compliance emission testing is required one of the following shall be used to demonstrate compliance:</p> <p>(i) U.S. EPA Method 5, including condensible backhalf emissions, shall be used for boilers without wet flue-gas-desulfurization (FGD) systems;</p> <p>(ii) U.S. EPA Method 5B, including condensible backhalf emissions, shall be used for boilers with FGD systems; or</p> <p>(iii) An appropriate alternate method listed in ss NR 440.19(7).</p>
<p>(ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator 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).</p>	<p>(b) The permittee shall determine compliance with the particulate matter</p>
<p>(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (iv) below, and the alarm must be located such that it can be heard by the appropriate</p>	

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plant personnel.

(iv) In the initial adjustment of the bag leak detection system, the permittee shall 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) Following initial adjustment, the permittee may not adjust the averaging period, alarm set point, or alarm delay time without approval from the Department except as provided in paragraph (vi) below.

(vi) Once per quarter, the permittee may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by I.G'.1.c.(4). [s. NR 406.10, Wis. Adm. Code, s. 285.65(3), Wis. Stats., and Permit 11-POY-123]

(7) The permittee shall perform internal inspections of the baghouse not less than once every 18 months to ensure that the control equipment is operating properly. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code]

(8) The permittee shall prepare and follow a plan for periodical internal inspections of the boiler and boiler efficiency optimization. This plan shall include the frequency of these inspections and the items to be inspected. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code]

(9) The permittee shall install, maintain and operate instruments to monitor the pressure drop across the baghouse control device. [s. NR 439.055(1)(a), Wis. Adm. Code, and Permit 11-POY-123]

(10) The permittee shall submit to the Department, within 180 days after the start of initial operation of the spray dryer absorber, the operating range of the pressure drop across the baghouse control device. [s. NR 439.055(1)(a), Wis. Adm. Code, and Permit 11-POY-123]

(11) Stack Parameters

(a) Stack height shall be at least 650 feet above ground level.

(b) The stack outlet diameter may not be greater than 21 feet.

(c) The stack may not be equipped with a rainhat or other device which impedes the upward flow of the exhaust gases. [s. 285.65(3), Stats. and s. NR 406.10, Wis. Adm. Code, and 11-POY-123]

standard using the method described in s. NR 440.19(7)(b), Wis. Adm. Code.
 [ss. NR 439.06(1) and 440.19(7)(b)2., Wis. Adm. Code]

(7) Alternate Reference Test Methods and Procedures: The permittee may alternatively use the particulate matter methods and procedures described in s. NR 400.19(7)(d), Wis. Adm. Code.
 [ss. NR 440.19(7)(d)1., 2., 3., 6., and 7., Wis. Adm. Code]

(8) Reference Test Method for PM₁₀ Emissions: Whenever compliance emission testing is required, US EPA Method 201A, including condensible backhalf emissions (Method 202), shall be used to demonstrate compliance.
 [s. NR 439.06(1), Wis. Adm. Code]

(9) Reference Test Method for PM_{2.5} Emissions: Whenever compliance emission testing is required, US EPA Method 201A, including condensible backhalf emissions (Method 202), shall be used to demonstrate compliance.
 [s. NR 439.06(1), Wis. Adm. Code]

(10) The permittee shall record the pressure drop across the baghouse once for every 8 hours of operation or once per day, whichever yields the greater number of measurements. [s. NR 439.055(2)(b)1., Wis. Adm. Code, and Permit 11-POY-123]

(11) The pressure drop monitoring device shall be accurate to within 5% of the pressure drop being measured or within ±1 inch of water column, whichever is greater. [s. NR 439.055(3)(b), Wis. Adm. Code, and Permit 11-POY-123]

(12) The baghouse control device pressure drop monitoring device shall be calibrated at least once per year, or at a frequency based on good engineering practice as established by operational history, whichever is more frequent. [s. NR 439.11(1)(b) and s. NR 439.055(4), Wis. Adm. Code, and Permit 11-POY-123]

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<p>Pollutant: 2. Visible Emissions</p>	
<p>a. Limitations:</p> <p>(1)(a) Opacity may not exceed 20% or number 1 of the Ringlemann chart except when combustion equipment is being cleaned or a new fire started, emissions may exceed number 1 of the Ringlemann chart or 20% opacity but may not exceed number 4 of the Ringlemann chart or 80% opacity for 6 minutes in any one hour. Combustion equipment may not be cleaned nor a fire started more than 3 times per day.⁸</p> <p>(b) Emissions may exceed number 1 of the Ringlemann chart or 20% opacity for stated periods of time, as permitted by the department, for such purpose as an operating test, use of emergency or reserve equipment, or other good cause, provided no hazard or unsafe condition arises. Such permission may only be granted in writing. [ss. NR 431.05(1)&(2), 440.19(3)(a)2. and 440.11(3), Wis. Adm. Code, and Permit 11-POY-123]</p> <p>(2) At all times, including periods of startup, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate boiler B22, including associated air pollution control equipment⁹, in a manner consistent with good air pollution control practice for minimizing emissions. [s. NR 440.11(4), Wis. Adm. Code]</p>	
<p>b. Compliance Demonstration:</p> <p>(1) The permittee shall calibrate, maintain and operate a continuous monitoring system which meets the performance specifications of condition I.G'.2.b.(3) for the measurement of opacity from stack S12.¹⁰ [ss. NR 439.095(1)(f) and NR 440.19(6)(a), Wis. Adm. Code]</p> <p>(2) The permittee shall calibrate maintain and operate the continuous emission monitor required by condition I.G'.2.b.(1) in accordance with the performance specifications in 40 CFR part 75, Appendices A to I and Performance Specification 1 in 40 CFR part 60, Appendix B. [ss. NR 439.09(1) and NR 439.095(6), Wis. Adm. Code]</p> <p>(3) The continuous emission monitor required by condition I.G'.2.b.(1) shall follow a quality control and quality assurance plan, as approved by the Department. [ss. NR 439.09(8) and NR 439.095(6), Wis. Adm. Code]</p> <p>(4) The permittee shall prepare and submit to the Department an updated Start-up and Shut-down Plan for the boiler. This plan shall be submitted prior to the initial operation of the spray dryer absorber. The plan shall define normal start-up and shut-down procedures, including the normal duration of start-up and shut-down periods. [s. NR 407.09(4)(a), Wis. Adm. Code]</p> <p>(5) <u>Zero and Span Calibrations:</u> The permittee shall perform a calibration check on the zero and span drifts of the</p>	<p>c. Test Methods, Recordkeeping, and Monitoring:</p> <p>(1) <u>Reference Test Method for Visible Emissions:</u> Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. The minimum total time of observations shall be 3-hours (30 6-minute averages). [ss. NR 439.06(9)(a)1. and NR 440.19(7)(b)3., Wis. Adm. Code]</p> <p>(2) The continuous opacity monitor required by condition I.G'.2.b.(1) shall complete one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. [s. NR 439.09(9)(a), Wis. Adm. Code]</p> <p>(3) The permittee shall submit quarterly excess emission and monitoring system performance (MPS) reports to the Department within 30 days following the end of each calendar quarter. [ss. NR 439.09(10) and NR 440.19(6)(g), Wis. Adm. Code]</p> <p>(4) Excess emissions for opacity are, any 6 minute period during which the average opacity exceeds the limitation in condition I.G'.2.a.(1). [ss. NR 439.09(10)(b) and NR 440.19(6)(g)1., Wis. Adm. Code]</p> <p>(5) The excess emission reports required by condition I.G'.2.c.(3) shall contain the information in Condition No. I.ZZZ.1.a(7) of this construction permit. [s. NR 439.09(10)(a), Wis. Adm. Code]</p> <p>(6) <u>Data Format:</u> (a) The permittee shall reduce all data to 6-minute averages, calculated from a minimum of 36 data points equally spaced over each 6-minute</p>

⁸ When combustion equipment is being cleaned or a new fire started and opacity exceeds 20%, one 6-minute exceedance per hour may be exempt, but no more than 3 exemptions per day are allowed. This provision does not restrict the number of cleanings or the number of fires that may be started in any day, only the number of exemptions that are allowed in any one day.

⁹ The permittee has demonstrated that it is not practicable to operate the electrostatic precipitator during periods of normal start-up and shut-down as defined in the Start-up and Shut-down Plan required by condition I.G.1.b.(4), because unburned hydrocarbons can collect on the plates and wires of the electrostatic precipitator and could combust, damaging the control equipment.

¹⁰ The permittee is exempt from the biennial opacity compliance tests required by s. NR 439.075(3)(b), Wis. Adm. Code, provided they operate a continuous opacity monitor that meets the performance specification requirements of s. NR 439.09, Wis. Adm. Code, pursuant to s. NR 439.075(4)(a)2., Wis. Adm. Code.

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<p><u>continuous emission monitoring system at least once daily.</u> <u>The calibration check shall be performed according to the procedures and methods in s. NR 440.13(4), Wis. Adm Code and s. NR 440.19(6)(c)3., Wis. Adm. Code.</u> [ss. NR 440.13(4) and NR 440.19(6)(c)3., Wis. Adm. Code]</p>	<p>period. (b) Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments may not be included in the data averages. (c) All excess emissions shall be converted into percent opacity rounded to the nearest one percent opacity. [s. NR 440.13(8), Wis. Adm. Code]</p>

GA. S26/P26 Lime Silo Bin Vent For Unit 2 - Permitted 2011	
Pollutant: 1. Particulate Matter/PM₁₀/PM_{2.5} Emissions	
a. Limitations:	
(1) Emissions may not exceed 6.4×10^{-2} pounds per hour. [s. NR 404.08(8) and (9), Wis. Adm. Code, s. 285.65(7), Wis. Stats., and Permit 11-POY-123]	
b. Compliance Demonstration:	c. Test Methods, Recordkeeping, and Monitoring:
(1) The permittee shall operate a fabric filter control device on the lime silo to control particulate matter/PM ₁₀ /PM _{2.5} emissions whenever the silo is being filled or operated. [s. 285.63(1)(a), Wis. Stats., and Permit 11-POY-123]	(1) Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Method 5, including condensible backhalf emissions, shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code]
(2) The permittee shall perform internal inspections of the fabric filter control device not less than once every 18 months to ensure that the control equipment is operating properly. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code]	(2) The permittee shall record the pressure drop across the fabric filter once for every 8 hours of operation or once per day, whichever yields the greater number of measurements. [s. NR 439.055(2)(b)1., Wis. Adm. Code, and 11-POY-123]
(3) The permittee shall maintain at the facility a written copy of the emission guarantee from the fabric filter control device manufacturer or vendor that the emission limit in I.GA.1.a.(1) will be met at all times. [s. 285.65(3), and Permit 11-POY-123]	(3) The permittee shall keep records of all inspections, checks and any maintenance or repairs performed on the fabric filter control device, containing the date of the action, initials of inspector, and the results. [s. NR 439.04(1)(d), Wis. Adm. Code, and 11-POY-123]
(4) The permittee shall submit to the Department, within 30 days after the start of initial operation of the lime silo, the operating range of the pressure drop across the fabric filter control device. [s. NR 439.055(1)(a), Wis. Adm. Code, and Permit 11-POY-123]	(4) The pressure drop monitoring device shall be accurate to within 5% of the pressure drop being measured or within ± 1 inch of water column, whichever is greater. [s. NR 439.055(3)(b), Wis. Adm. Code, and Permit 11-POY-123]
(5) The permittee shall install, maintain and operate instruments to monitor the pressure drop across the fabric filter control device. [s. NR 439.055(1)(a), Wis. Adm. Code, and Permit 11-POY-123]	
(6) Stack Parameters	
(a) Stack height shall be at least 143 feet above ground level.	
(b) The stack outlet diameter may not be greater than 1 foot.	
(c) The stack may not be equipped with a rainhat or other device which impedes the upward flow of the exhaust gases. [s. 285.65(3), Stats. and s. NR 406.10, Wis. Adm. Code, and 11-POY-123]	
Pollutant: 2. Visible Emissions	
a. Limitations:	
(1) Opacity may not exceed 20% or number 1 of the Ringlemann chart. [s. NR 431.05, Wis. Adm. Code, and Permit 11-POY-123]	
b. Compliance Demonstration:	c. Test Methods, Recordkeeping, and Monitoring:
(1) The permittee shall comply with I.GA.1.b. [s. 285.65(3), Wis. Stat., and Permit 11-POY-123]	(1) Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code]
	(2) The permittee shall comply with I.GA.1.c.

GC. F99 Truck Traffic on Paved and Unpaved Haul Roads	
Pollutant: 1. Particulate Matter/PM₁₀/PM_{2.5} Emissions	
a. Limitations:	
<p>(1) The permittee may not cause, allow or permit any materials to be handled, transported or stored without taking precautions to prevent particulate matter from becoming airborne. Nor may the permittee allow a structure, a parking lot, or a road to be used, constructed, altered, repaired, sand blasted, or demolished without taking such precautions. [s. NR 415.04, Wis. Adm. Code, and Permit 11-POY-123]</p>	
b. Compliance Demonstration:	c. Test Methods, Recordkeeping, and Monitoring:
<p>(1) No person may cause, allow or permit any materials to be handled, transported or stored without taking precautions to prevent particulate matter from becoming airborne. Nor may a person allow a structure, a parking lot, or a road to be used, constructed, altered, repaired, sand blasted or demolished without taking such precautions. Such precautions shall include, but not be limited to:</p> <p>(a) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, or construction operations.</p> <p>(b) Application of asphalt, water, suitable chemicals or plastic covering on dirt roads, material stockpiles and other surfaces which can create airborne dust, provided such application does not create a hydrocarbon, odor or water pollution problem.</p> <p>(c) Installation and use of hoods, fans, and air cleaning devices to enclose and vent the areas where dusty materials are handled.</p> <p>(d) Covering or securing of materials likely to become airborne while being moved on public roads, railroads or navigable waters.</p> <p>(e) Conduct of agricultural practices such as tilling of land or application of fertilizers in such manner as not to create air pollution.</p> <p>(f) The paving or maintenance of roadway areas so as not to create air pollution. [s. NR 415.04(1), Wis. Adm. Code, and 11-POY-123]</p> <p>(2) The permittee shall prepare a fugitive dust control plan to prevent, detect and correct malfunctions, equipment failures or other circumstances which may cause any applicable emission limitation to be violated or which may cause air pollution. The plan shall be in writing, submitted within 60 days prior to the first receipt of lime for the spray dryer absorbers to the Department's South Central Region Air Program, and updated as needed. The fugitive dust control plan, at a minimum, shall include the criteria when dust suppression activities will be implemented and the records of those dust suppression activities. [s. NR 415.04, Wis. Adm. Code, and 11-POY-123]</p>	<p>(1) Reference Test Method for Particulate Matter Emissions: Whenever particulate matter emission testing is required, the permittee shall use U.S. EPA Method 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H or 17. [s. NR 439.06(1), Wis. Adm. Code]</p> <p>(2) The permittee shall keep daily records and maintain records of the following:</p> <p>(a) Daily dust suppression activities</p> <p>(b) Daily meteorological conditions. [ss. NR 415.04 and NR 439.04(1)(d), Wis. Adm. Code, and 11-POY-123]</p> <p>(3) The permittee shall keep monthly records and maintain records of the following:</p> <p>(a) Monthly number of truck loads of lime delivered</p> <p>(b) Monthly tonnage of biproduct silo waste delivered to the on-site landfill. [ss. NR 415.04 and NR 439.04(1)(d), Wis. Adm. Code, and 11-POY-123]</p> <p>(4) The permittee shall enforce a speed limit of 10 miles per hour for truck traffic on the haul roads. [ss. NR 415.04 and NR 439.04(1)(d), Wis. Adm. Code, and 11-POY-123]</p>

ZZZ. Conditions Applicable to the Entire Project

1. Construction Permit 11-POY-123 Transitional Language.

a. Limitations:

(1) Notifications. The permittee shall inform the Department of the following dates:

- (a) The date construction commences on any new or modified emission unit(s) addressed in Permit 11-POY-123.
- (b) The date each spray dryer absorber and baghouse become operational.
- (c) The date each lime silo becomes operational.

For the purposes of this permit, "operational" shall be defined as the first time of any process related air contaminant is emitted into the ambient air.

In addition, for the purposes of this permit, "initial operational" for each spray dryer absorber of each boiler shall be defined as the first time the reagent is sprayed.

Further, for the purposes of this permit, "initial operational" for each new silo shall be defined as the first time the silo is loaded.

[s. NR 439.03(1), Wis. Adm. Code (Permit 11-POY-123)]

(2) Construction Authorization Expiration. The Authorization to Construct, under Construction Permit 11-POY-123 expires 36 months after the date of issuance. Construction or modification and an initial operation period for equipment shakedown, testing and Department evaluation of operation to assure conformity with the permit conditions is authorized for each emissions unit covered in this permit. Please note that the sources covered by this permit are required to meet all emission limits and conditions contained in the permit at all times, including during the initial operation period. If 36-month period is an insufficient time period for construction or modification, equipment shakedown, testing and Department evaluation of operation, the permit holder may request and the Department may approve in writing an extension of this permit. The conditions of the construction permit are permanent, unless revised, superseded or revoked.

[ss. 285.60(1)(a)2. and 285.66(1), Wis. Stats., and s. NR 406.12, Wis. Adm. Code (Permit 11-POY-123)]

(3a) Boiler B21. Once the spray dryer absorber and the baghouse are constructed and operational, B21 shall comply with the conditions for particulate matter and visible emissions in Section I.B'. of the construction permit 11-POY-123. The conditions in I.B. in the operation permit 111003090-P21 for all other pollutants remain applicable to Boiler B21.

[s. NR 439.03(1), Wis. Adm. Code (Permit 11-POY-123)]

(3b) Boiler B22. Once the spray dryer absorber and the baghouse are constructed and operational, B22 shall comply with the conditions for particulate matter and visible emissions in Section I.G'. of the construction permit 11-POY-123. The conditions in I.G. in the operation permit 111003090-P21 for all other pollutants remain applicable to Boiler B22.

[s. NR 439.03(1), Wis. Adm. Code (Permit 11-POY-123)]

(4) New Silos (P25, P26, P31). Once constructed and initially operating, P25 shall operate under the conditions in Section I.BA., P26 shall operate under the conditions in Section I.GA., and P31 shall operate under the conditions in Section I.BB. of the

ZZZ. Conditions Applicable to the Entire Project

construction permit 11-POY-123.

[s. NR 439.03(1), Wis. Adm. Code (Permit 11-POY-123)]

(5) **Malfunction Prevention and Abatement Plan.** The permittee shall update the facility's Malfunction Prevention and Abatement Plan to include the operation and maintenance of the emission units and associated control equipment covered under this construction permit within 60 days of the date each unit becomes operational.

[s. NR 439.11, Wis. Adm. Code (Permit 11-POY-123)]

(6) **Emission Stack Testing.** The permittee shall conduct compliance emission stack tests as required in the construction permit.

(a) If compliance emission test(s) cannot be conducted within the time frames specified, the permit holder may request and the Department may approve, in writing, an extension of time to conduct the test(s).

(b) All testing shall be performed with the emissions unit operating at capacity or as close to capacity as practicable and in accordance with approved procedures. If operation at capacity is not feasible, the source shall operate at a capacity level which is approved by the Department in writing.

(c) The Department shall be informed at least 20 working days prior to any stack testing so a Department representative can witness the testing. At the time of notification, a compliance emission test plan shall also be submitted to the Department for approval. When approved in writing, an equivalent test method may be substituted for the reference test method.

[s. NR 439.07, Wis. Adm. Code (Permit 11-POY-123)]

(7) **Compliance Reports/Records.** The permittee shall submit periodic monitoring reports and certification of compliance for any emission unit covered under this construction permit for the period when that unit becomes operational. Note that compliance monitoring and reporting requirements and limitations of any unmodified units remain in effect.

(8) **Complete Operation Permit Application.** The permittee shall submit a complete operation permit application for the project covered under construction permit 11-POY-123.

[s. NR 407.04(1)(b), Wis. Adm. Code (Permit 11-POY-123)]

b. Compliance Demonstration:

(1) Notifications. The permittee shall submit to the Department of Natural Resources, South Central Region Air Program, Reedsburg Area Office in writing, within 15 days of the date the event, the following:

(a) The date construction commences on the any new or modified emission unit(s) addressed in Permit 11-POY-123.

(b) The date each spray dryer absorber and baghouse become operational.

(c) The date each new silo becomes operational.

[s. NR 439.04(1)(d), Wis. Adm. Code (Permit 11-POY-

c. Test Methods, Recordkeeping, and Monitoring:

None Applicable.

ZZZ. Conditions Applicable to the Entire Project

123)]

- (2) **Malfunction Prevention and Abatement Plan.** The owner or operator shall update the facility's Malfunction Prevention and Abatement Plan to include the emission units and associated control equipment covered under this construction permit within 60 days of the date each unit becomes operational.

[s. NR 439.11(1), Wis. Adm. Code (Permit 11-POY-123)]

- (3) **Emission Stack Testing.** Upon completion of any required compliance emission tests, the permittee shall submit to the Department of Natural Resources, South Central Region Air Program, Reedsburg Area Office two copies of the report on the tests for evaluation within 60 days of the date the tests were completed.

[s. NR 439.04(1)(d), Wis. Adm. Code (Permit 11-POY-123)]

- (4) **Submittal of Compliance Testing Information and other updates.** The permittee shall submit to the department any updates of the permit application. Updates are required if any changes that occur which are not specified or described in the plans and specifications dated July 29, 2011 through September 25, 2011. The updates shall be made within 60 days of the date of the change. Other information to be submitted shall include the notification requirements and stack tests results

[s. NR 439.04(1)(d), Wis. Adm. Code (Permit 11-POY-123)]

- (5) All submittals described in this permit shall be made in writing and include the name of the facility, the facility's address, the construction permit number and a description of the affected emission unit(s).

[s. NR 439.04(1)(d), Wis. Adm. Code (Permit 11-POY-123)]