# PERMIT EXAMPLE
# OHIO EPA

- Permit for an existing continuous sulfation process and a reactor vessel used to manufacture materials used in personal care products with the following emission unit operations:
    - Continuous Sulfation Process
    - Reactor Vessel
- Emission units are not subject to any NSPS and NESHAP.

Ohio Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

6/2/2015

Certified Mail

| | |
|---|---|
| Yes | TOXIC REVIEW |
| No | SYNTHETIC MINOR TO AVOID MAJOR NSR |
| No | CEMS |
| No | MACT/GACT |
| No | NSPS |
| No | NESHAPS |
| No | NETTING |
| No | MODELING SUBMITTED |
| No | SYNTHETIC MINOR TO AVOID TITLE V |
| No | FEDERALLY ENFORCABLE PTIO (FEPTIO) |
| No | SYNTHETIC MINOR TO AVOID MAJOR GHG |

John Cubberly
LUBRIZOL ADVANCED MATERIALS, INC.
1142 N MAIN ST
BOWLING GREEN, OH 43402

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0387020333
Permit Number: P0114626
Permit Type: Initial Installation
County: Wood

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**How to appeal this permit**

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of $70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

**How to save money, reduce pollution and reduce energy consumption**

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

**How to give us feedback on your permitting experience**

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

**How to get an electronic copy of your permit**

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Northwest District Office at (419)352-8461or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: Ohio EPA-NWDO

**FINAL**

# Division of Air Pollution Control
# Permit-to-Install and Operate
for
LUBRIZOL ADVANCED MATERIALS, INC.

| | |
|---|---|
| Facility ID: | 0387020333 |
| Permit Number: | P0114626 |
| Permit Type: | Initial Installation |
| Issued: | 6/2/2015 |
| Effective: | 6/2/2015 |
| Expiration: | 8/10/2020 |

Ohio Environmental Protection Agency

**Division of Air Pollution Control**
**Permit-to-Install and Operate**
for
LUBRIZOL ADVANCED MATERIALS, INC.

**Table of Contents**


Authorization ..... 1
A. Standard Terms and Conditions ..... 3
1. What does this permit-to-install and operate ("PTIO") allow me to do? ..... 4
2. Who is responsible for complying with this permit? ..... 4
3. What records must I keep under this permit? ..... 4
4. What are my permit fees and when do I pay them? ..... 4
5. When does my PTIO expire, and when do I need to submit my renewal application? ..... 4
6. What happens to this permit if my project is delayed or I do not install or modify my source? ..... 5
7. What reports must I submit under this permit? ..... 5
8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit? ..... 5
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ..... 5
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? ..... 6
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? ..... 6
12. What happens if one or more emissions units operated under this permit is/are shut down permanently? ..... 6
13. Can I transfer this permit to a new owner or operator? ..... 7
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? ..... 7
15. What happens if a portion of this permit is determined to be invalid? ..... 7
B. Facility-Wide Terms and Conditions ..... 8
C. Emissions Unit Terms and Conditions ..... 10
1. P007, Continuous Sulfation Process ..... 11
2. P008, Reactor Vessel R-800 ..... 17

# Authorization

| | |
|---|---|
| Facility ID: | 0387020333 |
| Application Number(s): | A0047525 |
| Permit Number: | P0114626 |
| Permit Description: | Initial PTIO for an existing continuous sulfation process (P007) and a reactor vessel (P008) used to manufacture materials used in personal care products. |
| Permit Type: | Initial Installation |
| Permit Fee: | $3,000.00 |
| Issue Date: | 6/2/2015 |
| Effective Date: | 6/2/2015 |
| Expiration Date: | 8/10/2020 |

Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

LUBRIZOL ADVANCED MATERIALS, INC.
1142 NORTH MAIN ST
Bowling Green, OH 43402

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419)352-8461

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s))listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director

# Authorization (continued)

Permit Number: P0114626
Permit Description: Initial PTIO for an existing continuous sulfation process (P007) and a reactor vessel (P008) used to manufacture materials used in personal care products.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

**Emissions Unit ID:** **P007**
Company Equipment ID: Continuous Sulfation Process
Superseded Permit Number:
General Permit Category and Type: Not Applicable

**Emissions Unit ID:** **P008**
Company Equipment ID: Reactor Vessel R-800
Superseded Permit Number:
General Permit Category and Type: Not Applicable

# A. Standard Terms and Conditions

**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

  You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is

very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the [DO/LAA] in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as beingpermanently shut down without first applying for and obtaining a permit pursuantto OAC Chapter 3745-31.

**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

# B. Facility-Wide Terms and Conditions

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

   a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

      (1) None.

   b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

      (1) None.

# C. Emissions Unit Terms and Conditions

## 1. P007, Continuous Sulfation Process

**Operations, Property and/or Equipment Description:**

Continuous Sulfation Reactor for the Production of Sulfochem SLS and other materials

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. b)(1)c.and d)(2)

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3) | Hydrochloric acid (HCl) emissions shall not exceed 0.02 pound per hour (lb/hr) and 0.09 ton per year (tpy)<br><br>See b)(2)a. |
| b. | OAC rule 3745-114 | See d)(2) |

(2) Additional Terms and Conditions

a. The Best Available Technology (BAT) requirements for this emissions unit have been determined to be compliance with the terms and conditions of this permit and the following control requirements:

i. The emissions from this emissions unit shall be vented to a two-stage venturi scrubber system and a two-stage packed tower scrubber, in series, at all times the emissions unit is in operation.

ii. The two-stage venturi scrubber system shall achieve a minimum control efficiency of 95% for HCl emissions.

iii. The two-stage packed tower scrubber shall achieve a minimum control efficiency of 95% for HCl emissions using a dilute sodium hydroxide solution to remove any residual HCl gas from the outlet gas stream from the venturi scrubber prior to discharge to the atmosphere.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the liquid flow rate, operating pressure drop and the pH for both the venturi and two-stage packed tower wet scrubbers during operation of this emissions unit, including periods of startup and shutdown.The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

a. The permittee shall collect and record the following information daily, for both scrubbers:

i. scrubber liquid flow rate;

ii. scrubber operating pressure drop; and

iii. pHof the scrubber liquid.

b. Whenever the monitored values for the venturi and two-stage packed tower wet scrubbers liquid flow rate, operating pressure drops and the pH deviates from the range(s) specified in d)(1)d. and d)(1)e. below, the permittee shall promptly investigate the cause of the deviation.

The permittee shall maintain records of the following information for each investigation:

i. the date and time the deviation began;

ii. the magnitude of the deviation at that time;

iii. the date(s) the investigation was conducted;

iv. the names of the personnel who conducted the investigation; and

v. the findings and recommendations.

c. In response to each deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable ranges/values specified below, unless the permittee determines that corrective action is not necessary.

i. The permittee shall maintain records of the following information for each deviation when it was determined that corrective action was not necessary:

(a) the reason corrective action was not necessary; and

(b) thedate and time the deviation ended.

ii. The permittee shall maintain records of the following information for each deviation when corrective action was taken:

(a) a description of the corrective action;

(b) the date it was completed;

(c) the date and time the deviation ended;

(d) the total period of time (in minutes) during which there was a deviation;

(e) the ranges/values immediately after the corrective action; and

(f) the names of the personnel who performed the work.

iii. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

d. Venturiscrubber indicator ranges

i. The acceptable rage scrubber liquid flow rate, that shall be maintained in order to demonstrate compliance, shall not be less than 250 gallons per minute (gpm) (≥ 250 gpm);

ii. The acceptable range for the pressure drop across the scrubber, that shall be maintained in order to demonstrate compliance, shall be between 0 and 2 inches of water; and

iii. The acceptable range for the pH of the scrubber liquid, that shall be maintained in order to demonstrate compliance, is between 1 and 8.5.

e. Packed tower wet scrubber indicator ranges

i. The acceptable rage scrubber liquid flow rate, that shall be maintained in order to demonstrate compliance, shall not be less than 5 gallons per minute (gpm) (≥ 5 gpm);

ii. The acceptable range for the pressure drop across the scrubber, that shall be maintained in order to demonstrate compliance, shall be between 0 and 3 inches of water; and

iii. The acceptable range for the pH of the scrubber liquid, that shall be maintained in order to demonstrate compliance, is between 12 and 14.

f. These ranges/values are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northwest District Office. The permittee may request revisions to the ranges/values based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rate for this emissions unit. In addition, approved revisions to the ranges/values will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

(2) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified PTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.

e) Reporting Requirements

(1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emissions testing shall be conducted no later than 180 days of the effective date of this permit.

b. The emission testing shall be conducted to demonstrate compliance with:

i. the HCl limitation of 0.02 lb/hr; and

ii. the control efficiencies of the venturi scrubbers and the two-stage packed bed tower scrubber.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

i. For HCl, Methods 1 - 4 and 26 or 26A, as set forth in of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

d. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

e. The tests shall be conducted while this emissions unit is operating at its maximum capacity and producing highest-emitting material, unless otherwise specified or approved by the Ohio EPA, Division of Air Pollution Control. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Division of Air Pollution Control. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the times and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA Northwest District Office's refusal to accept the results of the emissions tests.

f. Personnel from the Ohio EPA Northwest District Office shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions unit and/or the performance of the control equipment. A comprehensive written report on the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Division of Air Pollution Control within 30 days following completion of the tests.

(2) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

HCl emissions shall not exceed 0.02lb/hr and0.09 tpy

Applicable Compliance Method:

Compliance shall be demonstrated with the hourly emission limitation in accordance with the testing requirements in f)(1).

The annual emission limitation was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hours and dividing by 2,000. Therefore, provided compliance is demonstrated with the hourly emission limitation compliance with the annual emission limitation shall also be demonstrated.

b. Emission Limitation:

95% HClcontrol efficiency of the venturi scrubbers; and

95% HCl control efficiency of the two-stage packed bed wet scrubber

Applicable Compliance Method:

Compliance shall be demonstrated with the control efficiencies in accordance with the testing requirements in f)(1).

g) Miscellaneous Requirements

(1) None.

## 2. P008, Reactor Vessel R-800

**Operations, Property and/or Equipment Description:**

Reactor Vessel R-800 for the Production of Amidex KD Production and other materials

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. b)(1)c., d)(2), d)(3) and e)(2)

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3) | Volatile Organic Compound (VOC) emissions shall not exceed 0.45 pound per hour (lb/hr) and 1.97 tons per year (tpy)<br><br>See b)(2)a. and b)(2)b. |
| b. | ORC rule 3704.03(F) | See d)(2), d)(3) and e)(2) |

(2) Additional Terms and Conditions

a. The Best Available Technology (BAT) requirements for this emissions unit have been determined to be compliance with the terms and conditions of this permit and the following control requirements:

i. The emissions from this emissions unit shall be vented to a vacuum pump scrubber (which is followed by a packed bed tower scrubber); or a packed tower wet scrubber at all times the emissions unit is in operation.

ii. The vacuum pump scrubber shall achieve a minimum overall control efficiency of95% for VOC emissions using a dilute acidic solution to remove VOC emissions.

iii. The packed tower wet scrubber shall achieve a minimum overall control efficiency of90% for VOC emissions.

b. All of the VOC emissions areconsidered to be methanol which is a Hazardous Air Pollutant (HAP).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the liquid flow rate, operating pressure drop and the pH for each of the vacuum pump scrubber and the packed bed tower scrubber during operation of this emissions unit, including periods of startup and shutdown.The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

a. The permittee shall collect and record the following information daily, for both scrubbers:

i. scrubber liquid flow rate;

ii. scrubber operating pressure drop; and

iii. pHof the scrubber liquid.

b. Whenever the monitored values for the venturi and two-stage packed tower wet scrubbers liquid flow rate, operating pressure drops and the pH deviates from the range(s) specified in d)(1)f. below, the permittee shall promptly investigate the cause of the deviation.

The permittee shall maintain records of the following information for each investigation:

i. the date and time the deviation began;

ii. the magnitude of the deviation at that time;

iii. the date(s) the investigation was conducted;

iv. the names of the personnel who conducted the investigation; and

v. the findings and recommendations.

c. In response to each deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable ranges/values specified below, unless the permittee determines that corrective action is not necessary.

i. The permittee shall maintain records of the following information for each deviation when it was determined that corrective action was not necessary:

(a) the reason corrective action was not necessary; and

(b) thedate and time the deviation ended.

ii. The permittee shall maintain records of the following information for each deviation when corrective action was taken:

(a) a description of the corrective action;

(b) the date it was completed;

(c) the date and time the deviation ended;

(d) the total period of time (in minutes) during which there was a deviation;

(e) the ranges/values immediately after the corrective action; and

(f) the names of the personnel who performed the work.

iii. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

d. Vacuum pump and packed bed tower scrubber indicator ranges

i. The acceptable rage scrubber liquid flow rate, that shall be maintained in order to demonstrate compliance, shall not be less than 2 gallons per minute (gpm) (≥ 2 gpm);

ii. The acceptable range for the pressure drop across the scrubber, that shall be maintained in order to demonstrate compliance, shall be between 0 and 2 inches of water; and

iii. The acceptable range for the pH of the scrubber liquid, that shall be maintained in order to demonstrate compliance, is between 3 and 4.

e. These ranges/values are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northwest District Office. The permittee may request revisions to the ranges/values based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rate for this emissions unit.

In addition, approved revisions to the ranges/values will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

(2) The permit to install and operate (PTIO) for this emissions unit P008 was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN3 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN3 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), and calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

a. Pollutant: methanol
TLV (µg/m3): 262,000
Maximum Hourly Emission Rate (lbs/hr): 0.45
Predicted 1-Hour Maximum Ground-Level Concentration (µg/m3): 200.3
MAGLC (µg/m3): 6238

The above described evaluation demonstrated that the maximum ground level concentration for the new or modified source is less than eighty per cent of the MAGLC.

Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

b. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

c. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

d. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing PTIO will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final PTIO prior to the change.

(3) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the MAGLC for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

e) Reporting Requirements

(1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

(2) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual PER. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

(1) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emissions testing shall be conducted no later than 180 days of the effective date of this permit.

b. The emission testing shall be conducted to demonstrate compliance with:

i. the VOC limitation of 0.45 lb/hr; and

ii. the control efficiency of the vacuum pump scrubber and/or the packed bed tower scrubber.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

i. Methods 1 - 4 and Method 18, 25 and/or 25A of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

d. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

e. The tests shall be conducted while this emissions unit is operating at its maximum capacity and producing highest-emitting material, unless otherwise specified or approved by the Ohio EPA, Division of Air Pollution Control. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Division of Air Pollution Control. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the times and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA Northwest District Office's refusal to accept the results of the emissions tests.

f. Personnel from the Ohio EPA Northwest District Office shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions unit and/or the performance of the control equipment. A comprehensive written report on the emissions tests shall be signed by the person or persons responsible for the

tests and submitted to the Ohio EPA Division of Air Pollution Control within 30 days following completion of the tests.

(2) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

VOC emissions shall not exceed 0.45lb/hr and1.97tpy

Applicable Compliance Method:

Compliance shall be demonstrated with the hourly emission limitation in accordance with the testing requirements in f)(1).

The annual emission limitation was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hours and dividing by 2,000. Therefore, provided compliance is demonstrated with the hourly emission limitation compliance with the annual emission limitation shall also be demonstrated.

b. Emission Limitation:

95% VOC control efficiency of the vacuum pump scrubber; and/or

90% VOC control efficiency of the packed bed tower scrubber

Applicable Compliance Method:

Compliance shall be demonstrated with the control efficiency of each scrubber in accordance with the testing requirements in f)(1).

g) Miscellaneous Requirements

(1) None.

# PERMIT EXAMPLE
# SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

- Permit to install a new corn oil extraction process at an existing facility with the following emission unit operations:

    - 2 Corn Oil Separation Tanks
    - Corn Oil Storage Tank
    - 4 Corn Oil Process Tanks
    - 2 Skid Tanks
    - 4 Bio-Receiver Tanks

- Emission units are not subject to any NSPS and NESHAP.

**Permit #:** 28.0502-26-05C

**Effective Date:** November 16, 2015

# SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

# AIR QUALITY CONSTRUCTION PERMIT

Steven M Pirner, Secretary
Department of Environment and Natural Resources

**Under the South Dakota Air Pollution Control Regulations**

Pursuant to Chapter 34A-1-21 of the South Dakota Codified Laws and the Air Pollution Control Regulations of the State of South Dakota and in reliance on statements made by the owner designated below, a permit to construct and operate is hereby issued by the Secretary of the Department of Environment and Natural Resources. This permit authorizes such owner to construct and operate the permitted unit(s) at the location designated below and under the listed conditions.

**A. Owner**

**1. Company Name and Mailing Address**

Aberdeen Energy, LLC
13435 370th Avenue
Mina, South Dakota 57451

**2. Actual Source Location if Different from Above**

13435 370th Avenue
Mina, South Dakota

**3. Permit Contact**

Peter Bullene, EHS Manager
(605) 882-8480

**4. Facility Contact**

Peter Bullene, EHS Manager
(605) 882-8480

**5. Responsible Official**

Peter Bullene, EHS Manager
(605) 882-8480

**B. Permit Revisions**

Not Applicable

**C. Description of Construction Activity**

Construct and operate a corn oil extraction process unit

## Table of Contents

Page


1.0 Standard Conditions ..... 1
- 1.1 Construction and operation of source ..... 1
- 1.2 Duty to comply ..... 1
- 1.3 Property rights or exclusive privileges ..... 2
- 1.4 Penalty for violating a permit condition ..... 2
- 1.5 Inspection and entry ..... 2
- 1.6 Severability ..... 2
- 1.7 Credible evidence ..... 2

2.0 Construction and Operating Permit Deadlines ..... 3
- 2.1 Commence construction ..... 3
- 2.2 Submit operating permit application ..... 3

3.0 Permit Revisions ..... 3
- 3.1 Administrative permit amendment ..... 3
- 3.2 Reopening permit ..... 4

4.0 Recordkeeping and Reporting ..... 4
- 4.1 Recordkeeping and reporting ..... 4
- 4.2 Construction date notification ..... 4
- 4.3 Initial startup notification ..... 4
- 4.4 Monthly records ..... 5
- 4.5 Quarterly reporting ..... 5
- 4.6 Certification statement ..... 5
- 4.7 Reporting permit violations ..... 6

5.0 Control of Regulated Air Pollutants ..... 6
- 5.1 Visibility limit ..... 6
- 5.2 Visibility exceedances ..... 6
- 5.3 Circumvention not allowed ..... 6
- 5.4 Minimizing emissions ..... 7

6.0 Performance Tests ..... 7
- 6.1 Performance test may be required ..... 7
- 6.2 Test methods and procedures ..... 7
- 6.3 Representative performance test ..... 7
- 6.4 Submittal of test plan ..... 7
- 6.5 Notification of test ..... 8
- 6.6 Performance test report ..... 8

7.0 PSD Exemption ..... 8
- 7.1 Plant wide volatile organic compound pollutant limit ..... 8

# Table of Contents

Page

7.2 Exemption from a PSD air quality permit ..... 9

## 1.0 Standard Conditions

### 1.1 Construction and operation of source

In accordance with Administrative Rules of South Dakota (ARSD) 74:36:20:15(9), the owner or operator shall construct and operate the units, controls, and processes as described in Table 1-1 in accordance with the statements, representations, and supporting data contained in the complete permit application received September 22, 2015, unless modified by the conditions of this permit. Except as otherwise provided herein, the control equipment in Table 1-1 shall be operated at all times in accordance with the manufacturer's specification and in a manner that achieves compliance with the conditions of this permit. The application consists of the application forms, supporting data, and supplementary correspondence. If the owner or operator becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in an application, such information shall be promptly submitted.

***Table 1-1 – Description of Permitted Units, Operations, and Processes***

| Unit | Description | Maximum Operating Rate | Control Device |
|---|---|---|---|
| #19 | Corn Oil Separation System – 2 Corn Oil Storage Tanks | 20,000 gallons each | Not Applicable |
| | Corn Oil Separation System – 1 Corn Oil Storage Tank | 30,000 gallons | |
| | Corn Oil Separation System – 4 process tanks | 9,000 gallons each | |
| | Corn Oil Separation System – 2 Skid Tanks | 282 gallons each | |
| | Corn Oil Separation System – 2 Bio-Receiver tanks | 282 gallons each | |
| | Corn Oil Separation System – 2 Bio-Receiver tanks | 382 gallons each | |

### 1.2 Duty to comply

In accordance with ARSD 74:36:20:15(12)(a) and (c), the owner or operator shall construct and operate in compliance with the conditions of this permit. An owner or operator who knowingly makes a false statement in any record or report or who falsifies, tampers with, or renders inaccurate, any monitoring device or method is in violation of this permit. A violation of any condition in this permit is grounds for enforcement, reopening this permit, permit termination, or denial of an application to operate. The owner or operator, in an enforcement action, cannot use the defense that it would have been necessary to cease or reduce the permitted activity to maintain compliance. The owner or operator shall provide any information requested by the Secretary to determine compliance or whether cause exists for reopening or terminating this permit.

## 1.3 Property rights or exclusive privileges

In accordance with ARSD 74:36:20:15(12)(b), the issuance of this permit, adoption of design criteria, and approval of plans and specifications does not convey any property rights of any sort, any exclusive privileges, any authorization to damage, injure or use any private property, any authority to invade personal rights, any authority to violate federal, state or local laws or regulations, or any taking, condemnation or use of eminent domain against any property owned by third parties. The State does not warrant the owner's or operator's compliance with this permit, design criteria, approved plans and specifications, and operation under this permit, will not cause damage, injury or use of private property, an invasion of personal rights, or violation of federal, state or local laws or regulations. The owner or operator is solely and severally liable for all damage, injury or use of private property, invasion of personal rights, infringement of federal, state or local laws and regulations, or taking or condemnation of property owned by third parties, which may result from actions taken under the permit.

## 1.4 Penalty for violating a permit condition

In accordance with South Dakota Codified Laws (SDCL) 34A-1-39 and 34A-1-47, a violation of a permit condition may subject the owner or operator to civil or criminal prosecution, a state penalty of not more than $10,000 per day per violation, injunctive action, administrative permit action, and other remedies as provided by law.

## 1.5 Inspection and entry

In accordance with SDCL 34A-1-41, the owner or operator shall allow the Secretary to:

1. Enter the premises where a regulated activity is located or where pertinent records are stored;
2. Have access to and copy any records that are required under this permit;
3. Inspect the construction and operations regulated under this permit; and/or
4. Sample or monitor any substances or parameters for the purpose of assuring compliance.

## 1.6 Severability

In accordance with ARSD 74:36:20:15(11), any portion of this permit that is void or challenged shall not affect the validity of the remaining permit requirements.

## 1.7 Credible evidence

In accordance with ARSD 74:36:13:07, credible evidence may be used for the purpose of establishing whether the owner or operator has violated or is on violation of this permit. Credible evidence is as follows:

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at the source:
   a. A monitoring method approved for the source pursuant to 40 CFR § 70.6(a)(3) and incorporated in this permit; or
   b. Compliance methods specified in an applicable plan;

2. The following testing, monitoring, or information gathering methods are presumptively credible testing, monitoring, or information-gathering methods:
   a. Any monitoring or testing methods approved in this permit, including those in 40 CFR Parts 51, 60, 61, and 75; or
   b. Other testing, monitoring, or information-gathering methods that produce information comparable to that produced by any method in section (1) or (2)(a).

## 2.0 Construction and Operating Permit Deadlines

### 2.1 Commence construction

In accordance with ARSD 74:36:20:21, this permit becomes invalid if the owner or operator has not commenced construction within 18 months of the effective date of this permit; discontinued construction for a period of 18 months or more; or construction is not completed within 10 years of the effective date of this permit.

### 2.2 Submit operating permit application

In accordance with ARSD 74:36:20:20, the owner or operator shall submit a complete permit application for an operating permit pursuant to ARSD 74:36:05. A complete permit application for a Title V air quality operating permit shall be submitted within 12 months after the initial startup of corn oil extraction process. For the purpose of this permit condition, initial startup means the first time corn oil is produced from the corn oil extraction process.

## 3.0 Permit Revisions

### 3.1 Administrative permit amendment

In accordance with ARSD 74:36:20:16 and 74:36:20:17, the Secretary shall determine whether an administrative permit amendment is applicable to a proposed revision within 15 days from receiving a request for a permit revision. The Secretary shall issue an administrative permit amendment without the procedural requirements applicable to obtaining this construction permit. As provided in ASRD 74:36:01:03, the Secretary considers a proposed revision an administrative permit amendment if the proposed revision accomplishes one of the following:

1. Corrects typographical errors;
2. Changes the name, address, or phone number of any person identified in this permit or provides a similar minor administrative change at the source;
3. Requires more frequent monitoring or reporting by the source;
4. The ownership or operational control of a source changes and the Secretary determines that no other change in this permit is necessary. However, the new owner must submit a certification of applicant form and a written statement specifying the date for transfer of operating permit responsibility, coverage, and liability; or

5. Any other change that the Secretary determines to be similar to those requirements in this condition.

### 3.2 Reopening permit

In accordance with ARSD 74:36:20:18 and 74:36:20:19, the Secretary may reopen this permit for further review if the Secretary determines the permit contains a material mistake in establishing the emissions standard or limits or other requirements of the construction permit or the Secretary determines the construction permit must be revised to ensure compliance with the applicable requirements of ARSD 74:36 and the federal Clean Air Act. The Secretary shall notify the owner or operator 30 days prior to reopening a construction permit or in a shorter time period in an emergency. The reopening of this construction permit shall follow the same procedural requirements to issue a construction permit and shall affect only those parts of the permit for which cause to reopen exist.

## 4.0 Recordkeeping and Reporting

### 4.1 Recordkeeping and reporting

In accordance with ARSD 74:36:20:15(10), the owner or operator shall maintain all monitoring data, records, reports, and pertinent information specified by this permit for five years from the date of sample, measurement, report, or application. The records shall be maintained on site for the first two years and may be maintained off site for the last three years. All records must be made available to the Secretary for inspection. All notifications and reports shall be submitted to the following address:

South Dakota Department of Environment and Natural Resources
PMB 2020, Air Quality Program
523 E. Capitol, Joe Foss Building
Pierre, SD 57501-3181

### 4.2 Construction date notification

In accordance with ARSD 74:36:07:01, as referenced to 40 CFR § 60.7(a)(1), the owner or operator shall notify the Secretary of the date construction commenced on the corn oil extraction process. The notification shall be postmarked no later than 30 days after such date.

### 4.3 Initial startup notification

In accordance with ARSD 74:36:07:01, as referenced to 40 CFR § 60.7(a)(3), the owner or operator shall notify the Secretary of the actual date of initial startup of the corn oil extraction process. The notification shall be postmarked no later than 15 days after such date. For the purpose of this permit condition, initial startup means the first time corn oil is produced from the corn oil extraction process.

**4.4 Monthly records**

In accordance with ARSD 74:36:20:15(10), the owner or operator shall calculate and record the amount of volatile organic compounds emitted each month from the permitted units in Table 1-1, the equipment associated with the Title V operating permit #28.0502-26 and fugitive sources associated with both operations. A 12-month rolling total shall be calculated every month using that month's value and the previous 11 month's values.

**4.5 Quarterly reporting**

In accordance with ARSD 74:36:20:15(10), the owner or operator shall submit a quarterly report to the Secretary by the end of each calendar quarter. The quarterly report shall contain the following information:

1. Name of facility, permit number, reference to this permit condition, identifying the submittal as a quarterly report, and calendar dates covered in the reporting period;
2. The quantity of volatile organic compounds emitted, in tons, in each month and the 12-month rolling total for each month in the reporting period and supporting documentation.

The initial quarterly report shall be postmarked no later than 30 days after the end of the quarter in which initial startup occurred. The remaining quarterly reports must be postmarked no later than 30 days after the end of the reporting period (i.e., April 30th, July 30th, October 30th, and January 30th). The information for this quarterly report may be included with the quarterly report required by the Title V operating permit #28.0502-26 in permit condition 6.4.

**4.6 Certification statement**

In accordance with ARSD 74:36:20:15(10), all documents required by this permit, including application forms, reports, and compliance certification, must be certified by a responsible official or a duly authorized representative. The certification shall include the following statement:

> "I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document and all attachments are true, accurate, and complete."

A responsible official for a corporation is a responsible corporate officer and for a partnership or sole proprietorship is a general partner or the proprietor, respectively. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to the Secretary; and
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

The duly authorized representative must be designated prior to or together with any reports or information to be signed by a duly authorized representative. The responsible official shall notify the Secretary if an authorization is no longer accurate.

### 4.7 Reporting permit violations

In accordance with ARSD 74:36:20:15(10), the owner or operator shall report all permit violations. A permit violation should be reported as soon as possible, but no later than the first business day following the day the violation was discovered. The permit violation may be reported by telephone to the South Dakota Department of Environment and Natural Resources at (605) 773-3151 or by FAX at (605) 773-5286.

A written report shall be submitted within five days of discovering the permit violation. Upon prior approval from the Secretary, the submittal deadline for the written report may be extended up to 30 days. The written report shall contain:

1. A description of the permit violation and its cause(s);
2. The duration of the permit violation, including exact dates and times; and
3. The steps taken or planned to reduce, eliminate, and prevent reoccurrence of the permit violation.

## 5.0 Control of Regulated Air Pollutants

### 5.1 Visibility limit

In accordance with ARSD 74:36:12:01, the owner or operator may not discharge into the ambient air an air contaminant of a density equal to or greater than that designated as 20 percent opacity from any permitted unit, operation, or process listed in Table 1-1, unless otherwise specified in this permit. This provision does not apply when the presence of uncombined water is the only reason for failure to meet the requirement.

### 5.2 Visibility exceedances

In accordance with ARSD 74:36:12:02, an exceedance of the opacity limit in permit condition 5.1 is not considered a violation during brief periods of soot blowing, start-up, shutdown, or malfunctions. A malfunction is described as any sudden and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. A failure caused entirely or in part by poor maintenance, careless operation, preventable equipment breakdown, or any other cause within the control of the owner or operator of the source is not a malfunction and is considered a violation.

### 5.3 Circumvention not allowed

In accordance with ARSD 74:36:07:01, as referenced to 40 CFR § 60.12, the owner or operator may not install, use a device, or use a means that conceals or dilutes an air emission that would otherwise violate this permit. This includes operating a unit or control device that emits air pollutants from an opening other than the designed stack, vent, or equivalent opening.

### 5.4 Minimizing emissions

In accordance with ARSD 74:36:07:01, as referenced to 40 CFR § 60.11(d), the owner or operator shall at all times, when practicable, maintain and operate all permitted units in a manner that minimizes air pollution emissions

## 6.0 Performance Tests

### 6.1 Performance test may be required

In accordance with ARSD 74:36:11:02, the Secretary may request a performance test. A performance test shall be conducted while operating the unit at or greater than 90 percent of its maximum design capacity, unless otherwise specified by the Secretary. A performance test that is conducted while operating at less than 90 percent of its maximum design capacity will result in the operation being limited to the percent achieved during the performance test. The Secretary has the discretion to extend the deadline for completion of the performance test required by the Secretary if circumstances reasonably warrant but will not extend the deadline past a federally required performance test deadline.

### 6.2 Test methods and procedures

In accordance with ARSD 74:36:11:01, the owner or operator shall conduct the performance test in accordance with 40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A, and 40 CFR Part 51, Appendix M. The Secretary may approve an alternative method if a performance test specified in 40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A, and 40 CFR Part 51, Appendix M is not applicable or required.

### 6.3 Representative performance test

In accordance with ARSD 74:36:07:01, as referenced to 40 CFR § 60.8(c), performance tests shall be conducted under such conditions as the Secretary shall specify to the owner or operator based on the representative performance of the unit being tested. The owner or operator shall make available to the Secretary such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in this permit.

### 6.4 Submittal of test plan

In accordance with ARSD 74:36:11:01, the owner or operator shall submit the proposed testing procedures to the Secretary at least 30 days prior to any performance test. The Secretary will notify the owner or operator if the proposed test procedures are approved or denied. If the proposed test procedures are denied, the Secretary will provide written notification that outlines what needs to be completed for approval.

### 6.5 Notification of test

In accordance with ARSD 74:36:07:01, as referenced to 40 CFR § 60.8(d), the owner or operator shall notify the Secretary at least 30 days prior to the start of a performance test to afford the Secretary the opportunity to have an observer present. If there is a delay in conducting the scheduled performance test, the owner or operator shall notify the Secretary as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Secretary by mutual agreement.

### 6.6 Performance test report

In accordance with ARSD 74:36:20:15(10), the owner or operator shall submit a performance test report to the Secretary within 60 days after completing the performance test or by a date designated by the Secretary. The performance test report shall contain the following information:

1. Description of the process and the air pollution control system being tested;
2. Sampling location description(s);
3. A description of sampling and analytical procedures and any modifications to standard procedures;
4. Test results expressed in units consistent with the applicable emission limit;
5. Quality assurance procedures and results;
6. Records of unit's operating conditions during the test (e.g., operating rate, fuel type);
7. Raw data sheets for field sampling and field and laboratory analyses;
8. Documentation of calculations;
9. All data recorded and used to establish parameters for compliance monitoring; and
10. Any other information required by the test method.

## 7.0 PSD Exemption

### 7.1 Plant wide volatile organic compound pollutant limit

In accordance with ARSD 74:36:20:15(9) and current Title V operating permit # 28.0502-26 (permit condition 8.6), the owner or operator shall not emit greater than or equal to 238 tons of volatile organic compounds per 12-month rolling period from the existing equipment permitted under the Title V operating permit # 28.0502-26 and the new equipment under this permit. The

12-month rolling total shall be calculated every month using that month's value and the previous 11 months' values. The 12-month rolling total shall begin the month this permit is issued.

**7.2 Exemption from a PSD air quality permit.**

The owner or operator is exempt from needing a PSD air quality permit. The exemption is based on air emission limits in permit condition 7.1. Any relaxation in permit condition 7.1 that increases a volatile organic compound pollutant emission equal to or greater than 238 tons per 12-month rolling period may require a PSD air quality permit before that change is initiated.

# PERMIT EXAMPLE
# WISCONSIN DNR

- Permit to install a new abrasive manufacturing facility with the following emission unit operations:

    - 2 Dual Fuel Boilers
    - Nonwoven Web Making
    - Coating Operation
    - Continuous Laminator Operation
    - Converting Operations
    - 2 Emergency Diesel Engines

- Emission units are subject to several NSPS and NESHAP.

**AIR POLLUTION CONTROL CONSTRUCTION PERMIT**

EI FACILITY NO: 603007680 CONSTRUCTION PERMIT NO.: 15-SJZ-076

TYPE: Construction Permit for Converting Operation MFF-2 (P45)

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

Name of Source: 3M Cumberland

Street Address: 1640 Western Avenue
Cumberland, Barron County, Wisconsin

Responsible Official, & Title: Paul Quam, Plant Manager

is authorized to operate an abrasive manufacturing facility as described in the plans and specifications dated December 4, 2012, February 6, 2015, February 17, 2015, May 8, 2015, May 21, 2015, and in conformity with the conditions herein. The authority to construct, modify, replace and/or reconstruct any process covered in this Construction Permit expires **March 11, 2017**. 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 operation 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 September 11, 2015

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

For the Secretary

By /s/ Susan Lindem 09/11/15
Susan Lindem
Air Management Supervisor

## Part I
## APPLICABLE LIMITATIONS AND SPECIFIC CONDITIONS

**A. Process B20, Stack S11 — 7.07 MMBtu/hr Industrial Boiler**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Particulate Matter Emissions | (1) Emissions shall not exceed 0.15 pounds of particulate matter per million BTU of heat input. **[s. NR 415.06(2)(b), Wis. Adm. Code]** | (1) The permittee may burn only natural gas and/or #2 fuel oil. **[ss. 285.65(3) and 285.63(1)(a), Wis. Stats. and s. NR 407.09(1)(c)1.b., Wis. Adm. Code]** | (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, 5I, or 17 for non-condensible emissions and Method 202 for condensible backhalf emissions or another method approved by the department in writing. **[s. NR 439.06(1), Wis. Adm. Code]**<br><br>(2) The permittee shall keep monthly records of the type and amount of fuel burned. **[s. NR 439.04(1)(d), Wis. Adm. Code]** |
| 2. Sulfur Dioxide Emissions | (1) Sulfur dioxide emissions shall not exceed 2.94 pounds per hour. **[s. NR 417.03, Wis. Adm. Code]**<br><br>(2) The distillate fuel oil sulfur content shall not exceed 0.35% by weight. **[s. 285.65(7), Wis. Stats.]**<br><br>(3) The stack shall have the following minimum stack height above grade, and maximum inside diameter:<br>Height Diameter<br>45 feet 3.0 feet<br>**[s. 285.65(3), Wis. Stats.]**<br><br>(4) The discharge from the stack shall be vertical | (1) The permittee may burn only natural gas and #2 fuel oil. **[ss. 285.65(3) and 285.63(1)(a), Wis. Stats. and s. NR 407.09(1)(c)1.b., Wis. Adm. Code]** | (1) Reference Test Method for Sulfur Dioxide Emissions: Whenever sulfur dioxide emission testing is required, the permittee shall use U.S. EPA Method 6, 6A, 6B or 6C or another method approved by the department in writing. **[ss. NR 407.09(1)(c)1.a., and NR 439.06(2)(a), Wis. Adm. Code]**<br><br>(2) The permittee shall keep records of the type and amount of fuel burned on a monthly basis. **[ss. NR 439.04(1)(a), and NR 407.09(1)(c)1.b., Wis. Adm. Code]**<br><br>(3) The permittee shall maintain complete records of emissions data and calculations used to verify emissions data annually and shall make such records available for inspection upon request by the department during regular business hours. **[s. NR 418.05(4)(f), Wis. Adm. Code]**<br><br>(4) The permittee shall keep a certificate of conformance for each shipment of #2 fuel oil received. **[s. 285.65(3), Wis. Stats., and ss. NR 439.06(2)(c) and NR 407.09(4)(a)1., Wis. Adm. Code]** |

**A. Process B20, Stack S11 — 7.07 MMBtu/hr Industrial Boiler**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 2. Sulfur Dioxide Emissions (continued) | upward, with no device that impedes the upward flow of exhaust. **[s. 285.65(3), Wis. Stats.]** | | (5) The permittee shall maintain on site technical drawings, blueprints or equivalent records for the physical stack parameters. **[s. NR 439.04(1)(d), Wis. Adm. Code]** |
| 3. Visible Emissions | (1) Opacity may not exceed 20% or number 1 on the Ringlemann chart with the following exceptions:<br>(a) When combustion equipment is being cleaned or a new fire started, emissions may not exceed number 4 of the Ringlemann chart or 80% opacity for more than 6 minutes in any one hour. Combustion equipment may not be cleaned nor a fire started more than three times per day.<br>(b) For stated periods of time, as permitted by the Department, for such purposes as an operating test, use of emergency equipment, or other good cause, provided no hazard or unsafe condition arises. **[s. NR 431.05, Wis. Adm. Code]** | (1) See Particulate Matter and Sulfur Dioxide Emission compliance demonstration requirements listed above. | (1) Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, the permittee shall use U.S. EPA Method 9 or another method approved by the department in writing. **[s. NR 439.06(9)(a)1., Wis. Adm. Code]**<br><br>(2) See Particulate Matter and Sulfur Dioxide Emission record keeping requirements listed above. |

**B. Process B21, Stack S12 — 8.7 MMBtu/hr Industrial Boiler**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Particulate Matter Emissions | (1) Emissions may not exceed 0.15 pounds of particulate matter per million BTU of heat. **[s. NR 415.06(2)(b), Wis. Adm. Code]** | (1) The permittee may burn only natural gas and #2 fuel oil. **[ss. 285.65(3) and 285.63(1)(a), Wis. Stats. and s. NR 407.09(1)(c)1.b., Wis. Adm. Code]** | (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, 5I, or 17 for non-condensible emissions and Method 202 for condensible backhalf emissions or another method approved by the department in writing. **[s. NR 439.06(1), Wis. Adm. Code]**<br><br>(2) The permittee shall keep monthly records of the type and amount of fuel burned. **[s. NR 439.04(1)(d), Wis. Adm. Code]** |
| 2. Sulfur Dioxide Emissions | (1) 4.41 pounds per hour **[s. NR 417.03, Wis. Adm. Code]**<br><br>(2) The distillate fuel oil sulfur content may not exceed 0.35% by weight. **[s. 285.65(7), Wis. Stats.]**<br><br>(3) The stack shall have the following minimum stack height above grade, and maximum inside diameter:<br>Height Diameter<br>45 feet 1.8 feet<br>**[s. 285.65(3) Wis. Stats.]**<br><br>(4) The discharge from the stack shall be vertical upward, with no device that impedes the upward flow of exhaust. **[s. 285.65(3) Wis. Stats.]** | (1) The permittee may burn only natural gas and #2 fuel oil. **[ss. 285.65(3) and 285.63(1)(a), Wis. Stats. and s. NR 407.09(1)(c)1.b., Wis. Adm. Code]** | (1) Reference Test Method for Sulfur Dioxide Emissions: Whenever sulfur dioxide emission testing is required, the permittee shall use U.S. EPA Method 6, 6A, 6B or 6C or another method approved by the department in writing. **[ss. NR 407.09(1)(c)1.a., and NR 439.06(2)(a), Wis. Adm. Code]**<br><br>(2) The permittee shall keep records of the type and amount of fuel burned on a monthly basis. **[ss. NR 439.04(1)(a)*, and NR 407.09(1)(c)1.b., Wis. Adm. Code]**<br><br>(3) The permittee shall maintain complete records of emissions data and calculations used to verify emissions data annually and shall make such records available for inspection upon request by the department during regular business hours. **[s. NR 418.05(4)(f), Wis. Adm. Code]**<br><br>(4) The permittee shall keep a certificate of conformance for each shipment of #2 fuel oil received. **[s. 285.65(3), Wis. Stats., and ss. NR 439.06(2)(c) and NR 407.09(4)(a)1., Wis. Adm. Code]**<br><br>(5) The permittee shall maintain on site technical drawings, blueprints or equivalent records for the physical stack parameters. **[s. NR 439.04(1)(d), Wis. Adm. Code]** |

**B. Process B21, Stack S12 — 8.7 MMBtu/hr Industrial Boiler**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 2. Sulfur Dioxide Emissions (continued) | | | |
| 3. Visible Emissions | (1) Opacity may not exceed 20% or number 1 on the Ringlemann chart with the following exceptions:<br>(a) When combustion equipment is being cleaned or a new fire started, emissions may not exceed number 4 of the Ringlemann chart or 80% opacity for more than 6 minutes in any one hour. Combustion equipment may not be cleaned nor a fire started more than three times per day.<br>(b) For stated periods of time, as permitted by the Department, for such purposes as an operating test, use of emergency equipment, or other good cause, provided no hazard or unsafe condition arises. **[s. NR 431.05, Wis. Adm. Code]** | (1) See Particulate Matter and Sulfur Dioxide Emission compliance demonstration requirements listed above. | (1) Reference Test Method for Visible Emissions: Whenever compliance emission testing is required for visible emissions, the permittee shall use U.S. EPA Method 9 or another method approved by the department in writing. **[s. NR 439.06(9)(a)1., Wis. Adm. Code]**<br><br>(2) See Particulate Matter and Sulfur Dioxide Emission record keeping requirements listed above. |

**C. Process P29, Stack S09 — 23 Maker Nonwoven Web Making**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Particulate Matter Emissions | (1) Particulate matter (total suspended particulate) emissions are limited to the most restrictive of the following:<br>(a) 0.40 lb/1,000 lb of gas **[s. NR 415.05(1)(o), Wis. Adm. Code]**<br>(b) $E = 3.59 (P)^{0.62}$ where, E is the emission limit in pounds per hour, and P is the process weight rate in tons per hour, **[s. NR 415.05(2), Wis. Adm. Code]**<br>AND<br>(c) 3.29 pounds per hour.[1] **[s. 285.65(7), Wis. Stats.]**<br><br>(2) The stack shall have the following minimum stack height above grade, and maximum inside diameter:<br>Height Diameter<br>40 feet 1.5 feet<br>**[s. 285.65(3), Wis. Stats.]**<br><br>(3) The discharge from the stack shall be vertical upward, with no device that impedes the upward flow of | (1) The permittee shall demonstrate compliance through record keeping. **[s. NR 407.09(4)(a), Wis. Adm. Code]** | (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, 5I, or 17 for non-condensible emissions and Method 202 for condensible backhalf emissions or another method approved by the department in writing. **[s. NR 439.06(1), Wis. Adm. Code]**<br><br>(2) The permittee shall supply to the department, upon request, records for product throughput and any other relevant product information with example calculations showing emissions over a given period of time. **[s. NR 439.04(1)(d), Wis. Adm. Code]**<br><br>(3) The permittee shall maintain on site technical drawings, blueprints or equivalent records for the physical stack parameters. **[s. NR 439.04(1)(d), Wis. Adm. Code]** |

[1] This emission limit was established in operation permit 603007680-P01 to protect the National Ambient Air Quality Standards (NAAQS) for particulate matter (total suspended particulate (TSP)) and PM10.

**C. Process P29, Stack S09 — 23 Maker Nonwoven Web Making**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Particulate Matter Emissions | exhaust. **[s. 285.65(3), Wis. Stats.]** | | |
| 2. PM10 Emissions | (1) PM10 emissions are limited to 3.29 pounds per hour.[2] **[s. 285.65(7), Wis. Stats., s. NR 404.08(2), Wis. Adm. Code]** | (1) The permittee shall demonstrate compliance through record keeping. **[s. NR 407.09(4)(a), Wis. Adm. Code]** | (1) Reference Test Method for PM10 Emissions: Whenever compliance emission testing is required, USEPA Method 201 or 201A for non-condensible emissions and Method 202 for condensible backhalf emissions in 40 CFR Part 51, Appendix M, incorporated by reference in s. NR 484.04(9), Wis. Adm. Code or another method approved by the department in writing shall be used to demonstrate compliance. **[s. NR 439.06(1m), Wis. Adm. Code]**<br><br>(2) The permittee shall supply to the department, upon request, records for product throughput and any other relevant product information with example calculations showing emissions over a given period of time. **[s. NR 439.04(1)(d), Wis. Adm. Code]**<br><br>(3) The permittee shall maintain on site technical drawings, blueprints or equivalent records for the physical stack parameters. **[s. NR 439.04(1)(d), Wis. Adm. Code]** |
| 3. Visible Emissions | (1) Opacity may not exceed 20 percent or number 1 on the Ringlemann chart except for stated periods of time, as permitted by the Department, for such purposes as an operating test, use of emergency equipment, or other good cause, provided no hazard or unsafe condition arises. **[s. NR 431.05, Wis. Adm.** | (1) See Particulate Matter Emission compliance demonstration requirements listed above. | (1) Reference Test Method for Visible Emissions: Whenever visible emission testing is required, the permittee shall use U.S. EPA Method 9 or another method approved by the department in writing. **[s. NR 439.06(9)(a)1., Wis. Adm. Code]**<br><br>(2) See Particulate Matter Emission record keeping requirements listed above. |

[2] This emission limit was established in operation permit 603007680-P01 to protect the National Ambient Air Quality Standards (NAAQS) for particulate matter (total suspended particulate (TSP)) and PM10.

**C. Process P29, Stack S09 — 23 Maker Nonwoven Web Making**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 3. Visible Emissions (continued) | Code] | | |

**D. Process P30, Stacks S10 (S10A, S10B, S10C, S10D) — 23 Maker Coating Operation**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Particulate Matter Emissions[3] | (1) The baghouses or dust control/raw material reclaiming equipment needed to support the web forming operation shall exhaust inside the building. **[ss. NR 406, and NR 439.04(1)(d), Wis. Adm. Code, permit 05-JBD-036]** | (1) Please refer to the requirements in condition I.D.1.c.(1). | (1) The permittee shall perform an inspection of the control devices for proper maintenance. **[ss. NR 407.09(4)(a) and NR 439.055(5), Wis. Adm. Code]** |
| 2. Volatile Organic Compound (VOC) Emissions | (1) LACT - Latest Available Control Techniques and Operating Practices (LACT).<br>(a) The permittee has demonstrated that 85% overall control is technologically infeasible for the process line, and so shall use LACT.<br>(b) LACT is defined as:<br>(i) The VOC content of the coatings may not exceed 4.56 pounds per gallon, excluding water as applied.<br>(ii) The average weekly VOC content of the coatings may not exceed 2.5 pounds per gallon, excluding water | (1) The permittee shall demonstrate compliance through record keeping. **[s. NR 407.09(4)(a), Wis. Adm. Code]** | (1) Reference Test Method for Volatile Organic Compound Emission Rates: Whenever emission testing of volatile organic compound (VOC) emission concentrations or emission rates is required, the permittee shall use U.S. EPA Method 18, 25, 25A, 25B, or 320 or another method approved by the department in writing. **[s. NR 439.06(3)(a), Wis. Adm. Code]**<br><br>(2) Reference Test Method for Volatile Organic Compound Content: Whenever the organic solvent content, the volume of solids, the weight of solids, the water content and the density of surface coatings and inks is required to be tested, the permittee shall use U.S. EPA Method 24 or 24A or another method approved by the department in writing. **[s. NR 439.06(3)(b), Wis. Adm. Code]**<br><br>(3) The Material Safety Data Sheets (MSDS), Safety Data Sheets (SDS), or any other similar documents, for each raw material shall be maintained by the facility to demonstrate the VOC content. **[s. NR 439.04(1)(d), Wis. Adm. Code]**<br><br>(4) The permittee shall keep the following records:<br>(a) type of mix used each day |

[3] This condition is necessary so that particulate matter emissions are less than 2,000 pounds per year and are considered insignificant.

**D. Process P30, Stacks S10 (S10A, S10B, S10C, S10D) — 23 Maker Coating Operation**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 2. Volatile Organic Compound (VOC) Emissions (continued) | as applied.<br>**[s. NR 424.03(2)(c), Wis. Adm. Code and permit 05-JBD-036]** | | (b) daily amount of mix in terms of pounds<br>(c) a catalog of mix specifications including:<br>(i) mix density<br>(ii) mix VOC content<br>(d) a weekly compilation of records required in condition I.D.2.c.(4)(c).<br>**[s. NR 439.04(1)(d), Wis. Adm. Code]** |

**E. Process P36, Stack S17 — Coating Line**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Volatile Organic Compound (VOC) Emissions | (1) Volatile organic compound emissions are limited to the Latest Available Control Techniques and Operating Practices (LACT). LACT has been determined to be the following:[4]<br>(a) primer shall be applied to plastic panels manually AND<br>(b) actual uncontrolled volatile organic compound emissions shall not exceed 1,666 pounds per month. **[s. 285.65(7), Wis. Stats., s. NR 424.03(2)(c), Wis. Adm. Code]** | (1) The permittee shall calculate the monthly volatile organic compound emissions by the end of the following month for the previous month according to the following:<br>(a) $\mathbf{E_{monthly}}$ **= (EF) * (Throughput) / (2,000 lb/ton)**<br><br>where,<br>$\mathbf{E_{monthly}}$ = monthly volatile organic compound emissions (lb/month)<br>**EF** = emission factor: raw material volatile organic compound content (lb VOC/lb raw material or lb VOC/gal raw material)<br>**Throughput** = raw materials used (lb/month or gal/month) OR<br>(b) another equivalent emission calculation method approved by the department in writing.<br>**[s. NR 407.09(4)(a)1., Wis. Adm. Code]** | (1) Reference Test Method for Volatile Organic Compound Emission Rates: Whenever emission testing of volatile organic compound (VOC) emission concentrations or emission rates is required, the permittee shall use U.S. EPA Method 18, 25, 25A, 25B, or 320 or another method approved by the department in writing. **[s. NR 439.06(3)(a), Wis. Adm. Code]**<br><br>(2) Reference Test Method for Volatile Organic Compound Content: Whenever the organic solvent content, the volume of solids, the weight of solids, the water content and the density of surface coatings and inks is required, the permittee shall use U.S. EPA Method 24 or 24A or another method approved by the department in writing. **[s. NR 439.06(3)(b), Wis. Adm. Code]**<br><br>(3) The permittee shall keep records of the following:<br>(a) the name of the material applied,<br>(b) the volatile organic compound content in the coating,<br>(c) the amount of the coating applied each month<br>(d) monthly actual uncontrolled volatile organic compound emissions,<br>(e) maximum uncontrolled emissions from each federal hazardous air pollutant,<br>(f) maximum uncontrolled emissions from all federal hazardous air pollutants combined,<br>(g) all information supporting that the installation of the Coating Line (P36) is exempt from construction permit requirements **[s. NR 439.04(1)(d), Wis. Adm. Code]** |
| 2. National Emission Standards for Hazardous Air Pollutants | (1) Organic hazardous air pollutants (HAP) emissions are limited to the Paper and Other Web Coating Operations MACT | (1) The compliance demonstration requirements in I.L.1.b. for the Paper and Other Web Coating Operations MACT are considered the compliance demonstration requirements for the | (1) The recordkeeping and monitoring requirements in I.L.1.c. for the Paper and Other Web Coating Operations MACT are considered the recordkeeping and monitoring requirements for the Surface Coating of Plastic Parts and Products MACT. **[s. 285.65(7), Wis. Stats., 40 CFR 63.4481(e)(2)]** |

[4] This Latest Available Control Techniques and Operating Practices (LACT) requirement was established in operation permit 603007680-P20.

**E. Process P36, Stack S17 — Coating Line**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| (Maximum Achievable Control Technology (MACT)) for Surface Coating of Plastic Parts and Products in 40 CFR Part 63 Subpart PPPP (63.4480-63.4581) | requirements in Part I.L.1.a. **[s. 285.65(7), Wis. Stats., 40 CFR 63.4481(e)(2)]** | Surface Coating of Plastic Parts and Products MACT. **[s. 285.65(7), Wis. Stats., 40 CFR 63.4481(e)(2)]** | |

**F. Process P37, Stacks S17 — Cloth Coating**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Volatile Organic Compound (VOC) Emissions | (1) LACT - Latest Available Control Techniques and Operating Practices (LACT):<br>(a) The permittee has demonstrated that 85% overall control is technologically infeasible for the process line, and so shall use LACT.<br>(b) LACT is defined as the use of knife coating application technique to apply coatings. **[s. NR 424.03(2)(c), Wis. Adm. Code and ss. 285.65(7), Wis. Stats.]**<br><br>(2) The permittee shall only coat batches of material that are manually pulled off the roll.[5] **[s. 285.65(7), Wis. Stats.]** | (1) The permittee shall notify the department when the application technique of knife coating is changed. **[s. NR 439.04(3), Wis. Adm. Code]**<br><br>(2) The permittee shall notify the department when the process technique of manually processing coating rolls is changed. **[s. NR 439.04(3), Wis. Adm. Code]** | (1) Reference Test Method for Volatile Organic Compound Emission Rates: Whenever emission testing of volatile organic compound (VOC) emission concentrations or emission rates is required, the permittee shall use U.S. EPA Method 18, 25, 25A, 25B, or 320 or another method approved by the department in writing. **[s. NR 439.06(3)(a), Wis. Adm. Code]**<br><br>(2) Reference Test Method for Volatile Organic Compound Content: Whenever the organic solvent content, the volume of solids, the weight of solids, the water content and the density of surface coatings and inks is required, the permittee shall use U.S. EPA Method 24 or 24A or another method approved by the department in writing. **[s. NR 439.06(3)(b), Wis. Adm. Code]**<br><br>(3) The permittee shall keep records of any maintenance done on the knife coating, including the date the maintenance was performed and a description of changes made. **[s. NR 439.04(3), Wis. Adm. Code]**<br><br>(4) The permittee shall keep records of all the hazardous air pollutants that exist in the coatings. These records shall include the name of the hazardous air pollutant, CAS number and the concentration of the hazardous air pollutant. The permittee may use material safety data sheets (MSDS) or safety data sheets (SDS) to obtain the information required in this condition. **[s. NR 439.04(3), Wis. Adm. Code]** |

[5] The cloth coating (P37) is not subject to the Paper Coating RACT emission limitations under s. NR 422.07, Wis. Adm. Code because it does not meet the definition of paper coating in s. NR 422.02(62), Wis. Adm. Code.

**G. Process P38, Stack S18 — Continuous Laminator Operation**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Volatile Organic Compound (VOC) Emissions | (1) When using liquid coating material, the permittee may not exceed 2.9 pounds per gallon excluding water, delivered to each coating applicator. **[s. NR 422.08(2)(a), Wis. Adm. Code]**<br><br>(2) When using solid coating material, the permittee may not emit more than 15 pounds per day.[6] **[s. NR 424.03(1)(a)4., Wis. Adm. Code]** | (1) The permittee shall keep records adequate to demonstrate compliance with the 15 pound per day exemption. **[s. NR 439.04(3), Wis. Adm. Code]** | (1) Reference Test Method for Volatile Organic Compound Emission Rates: Whenever emission testing of volatile organic compound (VOC) emission concentrations or emission rates is required, the permittee shall use U.S. EPA Method 18, 25, 25A, 25B, or 320 or another method approved by the department in writing. **[s. NR 439.06(3)(a), Wis. Adm. Code]**<br><br>(2) Reference Test Method for Volatile Organic Compound Content: Whenever the organic solvent content, the volume of solids, the weight of solids, the water content and the density of surface coatings and inks is required, the permittee shall use U.S. EPA Method 24 or 24A or another method approved by the department in writing. **[s. NR 439.06(3)(b), Wis. Adm. Code]**<br><br>(3) The Material Safety Data Sheets (MSDS), Safety Data Sheets (SDS), or any other similar documents, for each raw material shall be maintained by the facility to demonstrate the VOC content and unique name/identification number. **[s. NR 439.04(5)(a), Wis. Adm. Code]** |
| 2. Formaldehyde Emissions[7] * | (1) 0.0142 pound per hour. **[ss. 285.65(7), Wis. Stats., s. NR 445.08(2)(a), Wis. Adm. Code, permit 95-RV-065]**<br><br>(2) The permittee may not exceed 145 hours of operation prior to curing | (1) The permittee shall sum the total hours of operation prior to curing over a 12 month period and divided this total by 12 to obtain the monthly average hours of operation, not to exceed 145 hours per month. **[ss. NR 439.04(1)(d) and NR 407.09(1)(c)1.b., Wis. Adm. Code, permit 95-RV-065]** | (1) Reference Test Method for Formaldehyde Emissions: Whenever emission testing of formaldehyde emission concentrations or emission rates is required, the permittee shall use U.S. EPA Method 0011 or another method approved by the department in writing. **[ss. NR 407.09(1)(c)1.b. and 439.06(8), Wis. Adm. Code]**<br><br>(2) The Manufacturers Safety Data Sheets (MSDS), Safety Data Sheets (SDS), or any other similar documents, for each raw |

[6] This limit applies so that the continuous laminator operation (P38) is exempt from the requirements of s. NR 424.03(2), Wis. Adm. Code.

[7] These limits were established in construction permit 95-RV-065 and revised in operation permit 603007680-P10 to restrict formaldehyde emissions to less than ch. NR 445, Wis. Adm. Code threshold for formaldehyde to avoid BACT requirements, per s. NR 445.08(2)(a), Wis. Adm. Code.

**G. Process P38, Stack S18 — Continuous Laminator Operation**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 2. Formaldehyde Emissions* (continued) | per month based on a 12 month rolling average. **[s. NR 445.08(2)(a), Wis. Adm. Code and ss. 285.65(7), Wis. Stats., permit 95-RV-065]** | | material shall be maintained by the facility to demonstrate the VOC content. **[s. NR 439.04(1)(d), Wis. Adm. Code, permit 95-RV-065]**<br><br>(3) The permittee shall keep records of:<br>(a) the hours of operation for each day of operation and<br>(b) the total hours in the previous 12 months divided by 12 to obtain the monthly average, not to exceed 145 hours. **[s. NR 439.04(1)(d), Wis. Adm. Code, permit 95-RV-065]**<br><br>(4) The permittee shall keep records of all the hazardous air pollutants that exist in the coatings. These records shall include:<br>(a) the name of the hazardous air pollutant,<br>(b) the CAS # and<br>(c) the weight percent in the coatings.<br>**[s. NR 407.09(4)(a), Wis. Adm. Code, permit 95-RV-065]** |

**H. Process P40, Stacks S20, S21 — IS-1 Maker**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Volatile Organic Compound (VOC) Emissions | (1) LACT - Latest Available Control Techniques and Operating Practices (LACT):<br>(a) The permittee has demonstrated that 85% control is technologically infeasible for the process line, and so shall use LACT.<br>(b) LACT is defined as the use of knife coating application technique to apply coatings, or other application techniques with a similar transfer efficiency such as gravure, curtain, roll or dye coating.<br>**[s. NR 424.03(2)(c), Wis. Adm. Code and s. 285.63(7), Wis. Stats.]**<br><br>(2) The permittee may limit the VOC emissions from this process to 4.13 tons per month as determined on a 12 month rolling average.[8] **[s. 285.65(3), Wis. Stats.]**<br><br>(3) The permittee may not operate this line at increased line speed, as established in | (1) Until sufficient records have been accumulated to establish compliance through the averaging period, the permittee shall demonstrate compliance in the following manner: In the first month after permit issuance, emissions may not exceed 4.13 tons per month. After the second month, the emissions shall be the total emissions for the last two months divided by two, and may not exceed 4.13 tons per month. This averaging procedure shall be followed through the 12th month. For the 13th month and beyond, the total emissions in the previous 12 months shall be divided by 12 to obtain the monthly average raw material usage, not to exceed 4.13 tons per month. **[ss. NR 439.04(1)(d) and NR 407.09(1)(c)1.b., Wis. Adm. Code]** | (1) Reference Test Method for Volatile Organic Compound Emission Rates: Whenever emission testing of volatile organic compound (VOC) emission concentrations or emission rates is required, the permittee shall use U.S. EPA Method 18, 25, 25A, 25B, or 320 or another method approved by the department in writing. **[s. NR 439.06(3)(a), Wis. Adm. Code]**<br><br>(2) Reference Test Method for Volatile Organic Compound Content: Whenever the organic solvent content, the volume of solids, the weight of solids, the water content and the density of surface coatings and inks is required, the permittee shall use U.S. EPA Method 24 or 24A or another method approved by the department in writing. **[s. NR 439.06(3)(b), Wis. Adm. Code]**<br><br>(3) The permittee shall keep the following records:<br>(a) The amount of coatings/solvents used in gallons per day,<br>(b) The VOC content of coatings/solvents used per day in pounds VOC/gal,<br>(c) The daily VOC emissions in pounds,<br>(d) The total emissions in the previous 12 months divided by 12 to obtain the monthly average, not to exceed 4.13 tons.<br>(e) The solvent recovery system's hours of operation, and<br>(f) The line speed recorded once every 8 hours the system is in operation or once per day, whichever yields the greater number of measurements.<br>(g) transfer efficiency of application technique<br>(h) type of application technique being used<br>**[ss. NR 439.04(3), and NR 439.055(6),Wis. Adm. Code]**<br><br>(4) These records shall be compiled on a monthly basis and annual basis and kept for a period of five (5) years. These records shall be |

[8] This condition was established so the IS-1 maker (P40) is not subject to the Paper Coating RACT emission limitations under s. NR 422.07, Wis. Adm. Code and the emission limitations contained in s. NR 440.565, Wis. Adm. Code Pressure Sensitive Tape and Label Surface Coating Operations.

**H. Process P40, Stacks S20, S21 — IS-1 Maker**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Volatile Organic Compound (VOC) Emissions (continued) | construction permit 99-RV-008-R1, unless the gap dryer is in operation. **[ss. 285.65(3), Wis. Stats. and s. NR 407.09(4)(a), Wis. Adm. Code, permit 99-RV-008-R1]** | | made available to the department personnel anytime during normal working hours. **[s. NR 439.04(3), Wis. Adm. Code]** |

**I. Process P42, Stacks S30 — GTO**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Fugitive Volatile Organic Compound Emissions | (1) Latest Available Control Techniques and operating practices demonstrating best current technology (LACT).<br>(a) The permittee has demonstrated that 85% control is technologically infeasible for the process line, and so shall use LACT.<br>(b) LACT is defined as handling raw materials appropriately to minimize any fugitive emissions that may be generated by the process.<br>**[s. NR 424.03(2)(c), Wis. Adm. Code]** | (1) The permittee shall demonstrate compliance through record keeping. **[s. NR 439.04(3), Wis. Adm. Code]** | (1) The permittee shall supply to the department upon request the following:<br>(a) a description of the process, and<br>(b) a description of the material handling procedures<br>**[s. NR 439.04(1)(d), Wis. Adm. Code]** |

**J. Process P43, Stacks S30, S33 — Converting Operation MFF-1**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Particulate Matter Emissions | (1) Particulate matter emissions are limited to the most restrictive of the following:<br>(a) 0.40 lb/1,000 lb of gas **[s. NR 415.05(1)(o), Wis. Adm. Code]**<br>(b) $E = 3.59 (P)^{0.62}$ where, E is the emission limit in pounds per hour, and P is the process weight rate in tons per hour, **[s. NR 415.05(2), Wis. Adm. Code]**<br>AND<br>(c) 1.43 pounds of particulate matter per hour total for the converting operation MFF-1 (P43).[9] **[s. 285.65(7), Wis. Stats.]**<br><br>(2) Stack S30 shall have the following minimum stack height above grade, and maximum inside diameter:<br>Height: 39 feet<br>Diameter: 1 foot<br>**[s. 285.65(3), Wis. Stats.]**<br><br>(3) The discharge from stack S30 shall be vertical upward, with no device that impedes | (1) The permittee shall demonstrate compliance through record keeping. **[s. NR 439.04(3), Wis. Adm. Code]** | (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, 5I, or 17 for non-condensible emissions and Method 202 for condensible backhalf emissions or another method approved by the department in writing. **[s. NR 439.06(1), Wis. Adm. Code]**<br><br>(2) The permittee shall maintain the following records to support the exemption for the converting requirements:<br>(a) maximum number of pieces converted per hour,<br>(b) area cut per piece converted, and<br>(c) mass per area of converted web.<br>(d) these records shall be provided to the department upon request. **[s. NR 439.04(1)(d), Wis. Adm. Code]**<br><br>(3) The permittee shall maintain on site technical drawings, blueprints or equivalent records for the physical stack parameters. **[s. NR 439.04(1)(d), Wis. Adm. Code]** |

[9] This emission limit was established in operation permit 603007680-P01 to ensure that the construction permit exemption criteria continues to be satisfied.

**J. Process P43, Stacks S30, S33 — Converting Operation MFF-1**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Particulate Matter Emissions | the upward flow of exhaust. **[s. 285.65(3), Wis. Stats.]** | | |
| 2. Visible Emissions | (1) Opacity may not exceed 20 percent or number 1 on the Ringlemann chart except for stated periods of time, as permitted by the Department, for such purposes as an operating test, use of emergency equipment, or other good cause, provided no hazard or unsafe condition arises. **[s. NR 431.05, Wis. Adm. Code]** | (1) See Particulate Matter Emission compliance demonstration requirements listed above. | (1) Reference Test Method for Visible Emissions: Whenever compliance emission testing is required for visible emissions, the permittee shall use U.S. EPA Method 9 or another method approved by the department in writing. **[s. NR 439.06(9)(a)1., Wis. Adm. Code]**<br><br>(2) See Particulate Matter Emission recordkeeping requirements listed above. |
| 3. Isoprene Emissions* | (1) Isoprene emissions shall be restricted to the Best Available Control Technology (BACT). BACT has been determined to be the following:[10]<br>(a) use a laser to cut material AND<br>(b) restrict isoprene emissions to 145 pounds per year, summed over a rolling 12 month period.<br>**[s. NR 445.08(2)(f), Wis. Adm. Code]*** | (1) The permittee shall calculate the isoprene emissions each month by the end of the following month according to the following:<br>(a) $\mathbf{E_{monthly}}$ = **(EF) * (Throughput)**<br><br>where,<br>$\mathbf{E_{monthly}}$ = monthly isoprene emissions (lb/month)<br>**EF** = emission factor: raw material isoprene content (lb isoprene/lb raw material or lb isoprene/gal raw material)<br>**Throughput** = raw materials used (lb/month or gal/month) OR<br>(b) another equivalent emission calculation method approved by the | (1) Reference Test Method for Hazardous Air Pollutant Emissions: Whenever emission testing of a hazardous air pollutant is required, the permittee shall use methods and plans approved by the department in writing to demonstrate compliance. **[s. NR 439.06(8), Wis. Adm. Code]**<br><br>(2) The permittee shall keep records of the following:<br>(a) the BACT analysis that determined the feasiblity of controlling the emissions,<br>(b) emission factors, throughput, and other process information used to calculate the emissions,<br>(c) the monthly isoprene emissions, AND<br>(d) the annual isoprene emissions summed over a rolling 12 month period<br>**[s. NR 439.04(1)(d), Wis. Adm. Code]** |

[10] This Best Available Control Technology (BACT) requirement was established in operation permit 603007680-P20.

**J. Process P43, Stacks S30, S33 — Converting Operation MFF-1**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 3. Isoprene Emissions* (continued) | | department in writing. **[s. NR 407.09(4)(a)1., Wis. Adm. Code]*** <br><br> (2) The permittee shall calculate the isoprene emissions over each rolling 12 month period by summing the emissions of the current month with those of the preceding 11 months by the end of the following month according to the following: <br><br> $E_{total} = \Sigma E_{monthly}$ <br><br> where, <br> $E_{total}$ = pounds of isoprene emitted in each rolling 12 month period (lb/yr) <br> $E_{monthly}$ = pounds of isoprene emissions in a month as calculated in I.J.3.b.(1) (lb/month) <br> **[s. NR 407.09(4)(a)1., Wis. Adm. Code]*** | |

**K. Process P44, Stacks S31 — Converting Operation CRC**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Particulate Matter Emissions | (1) Particulate matter emissions are limited to the most restrictive of the following:<br>(a) 0.40 lb/1,000 lb of gas **[s. NR 415.05(1)(o), Wis. Adm. Code]**<br>(b) $E = 3.59 (P)^{0.62}$ where, E is the emission limit in pounds per hour, and P is the process weight rate in tons per hour, **[s. NR 415.05(2), Wis. Adm. Code]**<br>AND<br>(c) 0.63 pounds of particulate matter per hour.[11] **[s. 285.65(7), Wis. Stats.]**<br><br>(2) The stack shall have the following minimum stack height above grade, and maximum inside diameter:<br>Height: 27.66 feet<br>Diameter: 4.5 inches x 8 inches<br>**[s. 285.65(3), Wis. Stats.]**<br><br>(3) The discharge from the stack shall be vertical upward, with no device that impedes the upward flow of | (1) The permittee shall demonstrate compliance through record keeping. **[s. NR 439.04(3), Wis. Adm. Code]** | (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, 5I, or 17 for non-condensible emissions and Method 202 for condensible backhalf emissions or another method approved by the department in writing. **[s. NR 439.06(1), Wis. Adm. Code]**<br><br>(2) The permittee shall maintain the following records to support the exemption for the converting requirements:<br>(a) maximum number of pieces converted per hour,<br>(b) area cut per piece converted, and<br>(c) mass per area of converted web.<br>(d) these records shall be provided to the Department upon request. **[s. NR 439.04(1)(d), Wis. Adm. Code]**<br><br>(3) The permittee shall maintain on site technical drawings, blueprints or equivalent records for the physical stack parameters. **[s. NR 439.04(1)(d), Wis. Adm. Code]** |

[11] This emission limit was established in operation permit 603007680-P01 to ensure that the exemption criteria continues to be satisfied.

**K. Process P44, Stacks S31 — Converting Operation CRC**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Particulate Matter Emissions (continued) | exhaust. **[s. 285.65(3), Wis. Stats]** | | |
| 2. Visible Emissions | (1) Opacity may not exceed 20 percent or number 1 on the Ringlemann chart except for stated periods of time, as permitted by the Department, for such purposes as an operating test, use of emergency equipment, or other good cause, provided no hazard or unsafe condition arises. **[s. NR 431.05, Wis. Adm. Code]** | (1) See Particulate Matter Emission compliance demonstration requirements listed above. | (1) Whenever compliance emission testing is required for Visible Emissions, the permittee shall use U.S. EPA Method 9 or another method approved by the department in writing. **[s. NR 439.06(9)(a)1., Wis. Adm. Code]**<br><br>(2) See Particulate Matter Emission recordkeeping requirements listed above. |

**L. National Emission Standards for Hazardous Air Pollutants (Maximum Achievable Control Technology (MACT)) for Paper and Other Web Coating Operations (40 CFR Part 63 Subpart JJJJ (63.3280-63.3420)**

The 23 Making Coating Operation (P30), Coating Line (P36), Cloth Coating (P37), and IS-1 Maker (P40) are existing affected sources subject to the MACT standard for paper and other web coating operations.

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Organic Hazardous Air Pollutants (OHAP) | (1) **LIMIT:** Organic HAP emissions each month, from the collection of all web coating lines, to the level specified in (a) **OR** (b):<br>(a) No more than 4 percent of the mass of coating materials applied for each month; **OR**<br>(b) No more than 20 percent of the mass of coating solids applied for each month<br>**[40 CFR 63.3320(b) and s. 285.65(13), Wis. Stats.]** | (1) **DEMONSTRATE:** compliance with the organic HAP emission limits in I.L.1.a.(1) each month according to I.L.1.b.(2), I.L.1.b.(3), I.L.1.b.(4), **OR** I.L.1.b.(5), applied in any combination to each of the coating materials used by the web coating lines subject to 40 CFR 63 subpart JJJJ MACT standard **[s. 285.65(13), Wis. Stats.]**<br><br>(2) **"As-Purchased" Compliant Coating Materials.**<br>**DEMONSTRATE:** that each coating material applied during the month contains no more than 0.04 kg organic HAP per kg of coating material (0.04 lb HAP per lb of coating material), **OR** no more than 0.2 kg organic HAP per kg coating solids (0.2 lb organic HAP per lb coating solids)<br>**HOW:** by determining the organic HAP **AND/OR** solids content of each coating material applied, on an as-purchased basis, according to I.L.1.b.(5)<br>**[40 CFR 63.3370(c)(5)(i) and s. 285.65(13), Wis. Stats.]**<br><br>(3) **IF:** choosing to use the volatile organic content as a surrogate for the organic HAP content of coatings, then:<br>**DEMONSTRATE:** that each coating | (1) **DETERMINE AND RECORD:** the total mass of each coating material applied each month to each web coating line of the MACT JJJJ Affected Source **[40 CFR 63.3410(b) and s. 285.65(13), Wis. Stats.]**<br>**HOW:**<br>(a) by direct measurement, **OR**<br>(b) by calculation based on the amount of each product made by each web coating line and the corresponding coating formulation of those products, plus any materials added (e.g. solvent thinning of a coating), **OR**<br>(c) by other method, as approved by WDNR<br>**[40 CFR 63.3370(c)(5)(ii) and s. 285.65(13), Wis. Stats.]**<br><br>(2) **DETERMINE AND RECORD:** "as-purchased" volatile organic content **AND** coating solids content of each coating material applied, as applicable and consistent with the compliance demonstration elected at I.L.1.b. The term "as-purchased" is intended to apply to any single material or combination of materials [for example, the entire coating, as applied at the web] for which volatile organic content **AND/OR** coating solids content has been determined by one of the following methods<br>(a) by testing using EPA Method 24 [40 CFR part 60, Appendix A], according to 40 CFR 63.3360(d)(1), **OR**<br>(b) by formulation data, according to 40 CFR 63.3360(d)(2), **OR**<br>(c) by an alternative test method, approved by the Administrator at EPA in accordance with 40 CFR 63.7(f).<br>**[40 CFR 63.3370(c)(5)(ii) and s. 285.65(13), Wis. Stats.]** |

**L. National Emission Standards for Hazardous Air Pollutants (Maximum Achievable Control Technology (MACT)) for Paper and Other Web Coating Operations (40 CFR Part 63 Subpart JJJJ (63.3280-63.3420)**

The 23 Making Coating Operation (P30), Coating Line (P36), Cloth Coating (P37), and IS-1 Maker (P40) are existing affected sources subject to the MACT standard for paper and other web coating operations.

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Organic Hazardous Air Pollutants (OHAP) (continued) | | material applied during the month contains no more than 0.04 kg organic HAP per kg of coating material (0.04 lb HAP per lb of coating material), **OR** no more than 0.2 kg organic HAP per kg coating solids (0.2 lb organic HAP per lb coating solids)<br>**HOW:** by determining the as-purchased volatile organic content and coating solids content of each coating material applied according to 40 CFR 63.3360(d)(1) or (2) **AND** the as-applied volatile organic content and coating solids content of each coating material according to 40 CFR 63.3360(d)(3). **[s. 285.65(13), Wis. Stats., 40 CFR 63.3360(d)]**<br><br>(4) **"As-Applied" Compliant Coating Materials.**<br>**DEMONSTRATE:** that the monthly average organic HAP content of all as-applied coating materials is no more than 0.04 kg organic HAP per kg of coating material (0.04 lb organic HAP per lb of coating material), **OR** no more than 0.2 kg organic HAP per kg coating solids (0.2 lb organic HAP per lb coating solids), as determined according to I.L.1.b.(4)(a) **OR** (b), as applicable<br>(a) **DEMONSTRATE:** $H_L \leq 0.04$, as | |

**L. National Emission Standards for Hazardous Air Pollutants (Maximum Achievable Control Technology (MACT)) for Paper and Other Web Coating Operations (40 CFR Part 63 Subpart JJJJ (63.3280-63.3420)**

The 23 Making Coating Operation (P30), Coating Line (P36), Cloth Coating (P37), and IS-1 Maker (P40) are existing affected sources subject to the MACT standard for paper and other web coating operations.

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Organic Hazardous Air Pollutants (OHAP) (continued) | | calculated according to Equation 4 of 40 CFR 63.3370(c)(3) where $H_L$ = Monthly average, as-applied, organic HAP content of all coating materials applied, expressed as kg organic HAP per kg of coating material applied, kg/kg ((lb organic HAP/lb coating solids applied)), **OR**<br>(b) **DEMONSTRATE:** $H_s \leq 0.20$, as calculated according to Equation 5 of 40 CFR 63.3370(c)(4)<br>$H_s$ = Monthly average, as-applied, organic HAP to coating solids ratio, expressed as kg organic HAP/kg coating solids applied, kg/kg (lb organic HAP/lb coating solids applied)<br>**[s. 285.65(13), Wis. Stats., 40 CFR 63.3370(c)(5)(ii)]**<br><br>(5) **MAY ELECT:** a different method of compliance demonstration not listed above that is provided in 40 CFR 63.3370 (a) through (p).<br>**[40 CFR 63.3320(c) and s. 285.65(13), Wis. Stats.]** | |

**M. Process P45, Stacks S32, S33 – Converting Operation MFF-2**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Isoprene Emissions* | (1) Isoprene emissions shall be restricted to the Best Available Control Technology (BACT). BACT has been determined to be the following:<br>(a) use a laser to cut material AND<br>(b) restrict isoprene emissions to 145 pounds per year, summed over a rolling 12 month period.<br>**[s. NR 445.08(2)(f), Wis. Adm. Code, permit 15-SJZ-076]*** | (1) The permittee shall calculate the isoprene emissions each month by the end of the following month according to the following:<br>(a) $\mathbf{E_{monthly}}$ **= (EF) * (Throughput)**<br><br>where,<br>$\mathbf{E_{monthly}}$ = monthly isoprene emissions (lb/month)<br>**EF** = emission factor: raw material isoprene content (lb isoprene/lb raw material or lb isoprene/gal raw material)<br>**Throughput** = raw materials used (lb/month or gal/month) OR<br>(b) another equivalent emission calculation method approved by the department in writing.<br>**[s. NR 407.09(4)(a)1., Wis. Adm. Code, permit 15-SJZ-076]**<br><br>(2) The permittee shall calculate the isoprene emissions over each rolling 12 month period by summing the emissions of the current month with those of the preceding 11 months by the end of the following month according to the following:<br><br>$\mathbf{E_{total} = \Sigma E_{monthly}}$<br><br>where,<br>$\mathbf{E_{total}}$ = pounds of isoprene emitted in each rolling 12 month period (lb/yr)<br>$\mathbf{E_{monthly}}$ = pounds of isoprene emissions | (1) Reference Test Method for Hazardous Air Pollutant Emissions: Whenever emission testing of a hazardous air pollutant is required, the permittee shall use methods and plans approved by the department in writing to demonstrate compliance. **[s. NR 439.06(8), Wis. Adm. Code]**<br><br>(2) The permittee shall keep records of the following:<br>(a) the BACT analysis that determined the feasiblity of controlling the emissions,<br>(b) emission factors, throughput, and other process information used to calculate the emissions,<br>(c) the monthly isoprene emissions, AND<br>(d) the annual isoprene emissions summed over a rolling 12 month period<br>**[s. NR 439.04(1)(d), Wis. Adm. Code, permit 15-SJZ-076]** |

**M. Process P45, Stacks S32, S33 – Converting Operation MFF-2**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Isoprene Emissions* (continued) | | in a month as calculated in I.M.1.b.(1) (lb/month) **[s. NR 407.09(4)(a)1., Wis. Adm. Code, permit 15-SJZ-076]** | |
| 2. Visible Emissions | (1) Opacity may not exceed 20 percent or number 1 on the Ringlemann chart except for stated periods of time, as permitted by the Department, for such purposes as an operating test, use of emergency equipment, or other good cause, provided no hazard or unsafe condition arises. **[s. NR 431.05, Wis. Adm. Code]** | (1) See the recordkeeping requirements for isoprene emissions listed above. | (1) Reference Test Method for Visible Emissions: Whenever compliance emission testing is required for visible emissions, the permittee shall use U.S. EPA Method 9 or another method approved by the department in writing. **[s. NR 439.06(9)(a)1., Wis. Adm. Code]**<br><br>(2) See the recordkeeping requirements for isoprene emissions listed above. |

**N. Process P46, Stack S46 - 235 Horsepower Firewater Pump**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Particulate Matter Emissions | (1) Particulate matter emissions shall not exceed 0.50 pounds per million Btu. **[s. NR 485.055, Wis. Adm. Code]** | (1) The permittee shall only fire diesel fuel in the Firewater Pump (P46). **[s. 285.65, Wis. Stats.]** | (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, 5I, or 17 for non-condensible emissions and Method 202 for condensible backhalf emissions or another method approved by the department in writing. **[s. NR 439.06(1), Wis. Adm. Code]**<br><br>(2) The permittee shall keep records of the type of fuel used in Firewater Pump (P46). **[s. NR 439.04(1)(d), Wis. Adm. Code]** |
| 2. Visible Emissions | (1) Visible emissions shall not exceed 20% opacity or number 1 on the Ringlemann chart with the following exceptions:<br>(a) When combustion equipment is being cleaned or a new fire started, emissions may not exceed number 4 of the Ringlemann chart or 80% opacity for more than 6 minutes in any one hour. Combustion equipment may not be cleaned nor a fire started more than three times per day.<br>(b) For stated periods of time, as permitted by the department, for such purposes as an operating test, use of emergency equipment, or other good cause, provided no hazard or unsafe condition arises. | (1) The permittee shall only fire diesel fuel in the Firewater Pump (P46). **[s. 285.65, Wis. Stats.]** | (1) Reference Test Method for Visible Emissions: Whenever compliance emission testing is required for visible emissions, U.S. EPA Method 9 or another method approved by the department shall be used. **[s. NR 439.06(9)(a)1., Wis. Adm. Code]**<br><br>(2) The permittee shall keep records of the type of fuel used in Firewater Pump (P46). **[s. NR 439.04(1)(d), Wis. Adm. Code]** |

**N. Process P46, Stack S46 - 235 Horsepower Firewater Pump**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 2. Visible Emissions (continued) | **[s. NR 431.05, Wis. Adm. Code]** | | |
| 3. Hazardous Air Pollutant Emissions: National Emission Standard For Hazardous Air Pollutants (Maximum Achievable Control Technology (MACT)) for Stationary Reciprocating Internal Combustion Engines (RICE) in 40 CFR Part 63 Subpart ZZZZ (63.6580-63.6675) | (1) Emergency Reciprocating Internal Combustion Engine (RICE) Requirements: The permittee shall operate the firewater pump engine as an emergency stationary reciprocating internal combustion engine (RICE) located at a major source, as defined in 40 CFR § 63.6675 and pursuant to 40 CFR § 63.6640(f). To be considered an emergency stationary reciprocating internal combustion engine the affected engine shall operate as follows:<br>(a) Emergency Situations: Unlimited use of the engine is allowed in emergency situations[12].<br>(b) Maintenance Checks and Readiness Testing: The engine may not operate for more than 100 hours | (1) Fuel Requirements: Starting January 1, 2015, if operating an emergency compression ignition stationary RICE with a site rating of more than 100 brake horsepower and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for emergency demand response or local reliability, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel (ultralow sulfur diesel fuel (15 ppm or 0.0015 weight percent sulfur)) to fire the firewater pump engine. Existing diesel fuel purchased prior to January 1, 2015, may be used until depleted. **[40 CFR §§ 63.6604(b) and 80.510(b)(1)(i), s. 285.65(13), Wis. Stats., and ss. NR 407.09(4)(a)3.b., Wis. Adm. Code (MACT)]**<br><br>(2) Hours of Operation: The permittee shall track all hours of operation for the firewater pump engine. The permittee must identify how many hours are spent | (1) Records: The permittee shall maintain and have available records showing the sulfur content of the diesel fuel oil used to fire the firewater pump engine. The fuel supplier's certificate of analysis may be used as long as the sulfur content of the diesel fuel oil is identified or the fuel is identified as ultralow sulfur fuel oil. **[ss. NR 407.09(4)(a)1. and NR 439.04(1)(d), Wis. Adm. Code]**<br><br>(2) Records: The permittee shall maintain and have available records showing the firewater pump engine emergency and non-emergency hours of operation, including the classifications of these hours. **[40 CFR § 63.6655(f)(1), s. 285.65(13), Wis. Stats., and ss. NR 407.09(4)(a)1. and NR 439.04(1)(d), Wis. Adm. Code (MACT)]**<br><br>(3) Records: The permittee shall maintain and have available records showing the firewater pump engine total non-emergency hours of operation (excluding maintenance and readiness testing) for each calendar year and total hours of operation for non-emergency operation (including maintenance and readiness testing) for each calendar year. **[ss. NR 407.09(4)(a)1. and NR 439.04(1)(d), Wis. Adm. Code]**<br><br>(4) Maintenance Instructions: The permittee shall maintain and have available for the firewater pump engine a copy of the manufacturer's emission-related written instructions for maintaining the engine or a copy of the maintenance plan |

[12] Under s. NR 406.04(1)(w), Wis. Adm. Code, emergency electric generators powdered by internal combustion engines which are fueled by gaseous fuels, gasoline or distillate fuel oil with an electrical output of less than 3,000 kilowatts are not required to obtain a construction permit. The definition for an "emergency electric generator" in s. NR 400.02, Wis. Adm. Code, implies each affected generator operates no more than 200 hours per year. This operating limit restricts both the generators' emergency and non-emergency hours of operation. Before exceeding this implied operating limit, the permittee may need to request and obtain a construction permit under ch. NR 406.

**N. Process P46, Stack S46 - 235 Horsepower Firewater Pump**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 3. Hazardous Air Pollutant Emissions: National Emission Standard For Hazardous Air Pollutants (Maximum Achievable Control Technology (MACT)) for Stationary Reciprocating Internal Combustion Engines (RICE) in 40 CFR Part 63 Subpart ZZZZ (63.6580-63.6675) (continued) | per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by a government body, the manufacturer, the vendor, a transmission authority, or an insurance company[13], and emergency demand response events (including voltage fluctuations).<br>(c) Non-Emergency Situations: 50 of the 100 hours per year may be allocated for non-emergency situations. Non-emergency situations cannot be used for peak shaving or non-emergency demand response, or generator income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with | for emergency operation, including what classified the hours as emergency operation, and how many hours are spent for non-emergency operation, including what classified the hours as non-emergency operation. **[s. NR 407.09(4)(a)3.b., Wis. Adm. Code]**<br><br>(3) Hours of Operation: At the end of each calendar year, the permittee shall determine the firewater pump engine's total hours of operation for non-emergency operation (excluding maintenance and readiness testing) for the just completed calendar year and total hours of operation for non-emergency operation (including maintenance and readiness testing) for the just completed calendar year. **[s. NR 407.09(4)(a)3.b., Wis. Adm. Code]**<br><br>(4) Operation and Maintenance: The permittee shall operate and maintain the firewater pump engine at all times according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with safety and good air | developed for the engine. **[ss. NR 407.09(4)(a)1. and NR 439.04(1)(d), Wis. Adm. Code]**<br><br>(5) Maintenance Records: The permittee shall maintain and have available records showing all maintenance conducted on the firewater pump engine, including the identification and dates of all oil and filter changes, maintenance inspections, and part replacements. The records shall demonstrate that the firewater pump engine is operated and maintained in accordance with the manufacturer's emission-related written instructions or the maintenance plan developed for the engine. **[40 CFR § 63.6655(e)(2), s. 285.65(13), Wis. Stats., and ss. NR 407.09(4)(a)1. and NR 439.04(1)(d), Wis. Adm. Code (MACT)]**<br><br>(6) Report: The permittee shall report any failure to timely perform the work or management practices on the schedule required and the federal, state, or local law under which the risk was deemed unacceptable, if applicable. **[40 CFR §§ 63.6602, 63.6605(a), and Table 2c, footnote 1, s. 285.65(13), Wis. Stats., and ss. NR 407.09(4)(a)1. and NR 439.04(1)(d), Wis. Adm. Code (MACT)]** |

[13] The permittee may petition the department for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

**N. Process P46, Stack S46 - 235 Horsepower Firewater Pump**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 3. Hazardous Air Pollutant Emissions: National Emission Standard For Hazardous Air Pollutants (Maximum Achievable Control Technology (MACT)) for Stationary Reciprocating Internal Combustion Engines (RICE) in 40 CFR Part 63 Subpart ZZZZ (63.6580-63.6675) (continued) | another entity.<br>Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in 40 CFR § 63.6640(f), is prohibited. Failure to operate the engine as an emergency stationary RICE will result in the engine no longer being considered an emergency stationary RICE and the requirements for a non-emergency engine applying. **[40 CFR §§ 63.6585, 63.6590(a)(1)(ii), and 63.6640(f), and s. 285.65(13), Wis. Stats. (MACT)]**<br><br>(2) Work or Management Practices: The permittee shall meet the following work or management practice requirements, except during periods of startup:[14] | pollution control practices for minimizing emissions.[16] **[40 CFR §§ 63.6605, 63.6625(e)(2), 63.6640(a) and Table 6(9), s. 285.65(13), Wis. Stats., and s. NR 407.09(4)(a)3.b., Wis. Adm. Code (MACT)]**<br><br>(5) Non-Resettable Hour Meter: The permittee shall install and maintain a non-resettable hour meter on the firewater pump engine if one is not already installed. **[40 CFR § 63.6625(f) , s. 285.65(13), Wis. Stats., and s. NR 407.09(4)(a)3.b., Wis. Adm. Code (MACT)]**<br><br>(6) Oil Analysis Program: The permittee has the option of utilizing an oil analysis program, as described in 40 CFR § 63.6625(i) or (j), whichever is appropriate, in order to extend the specified oil change requirement. **[40 CFR § 63.6625(i) and (j), s. 285.65(13), Wis. Stats., and s. NR 407.09(4)(a)3.b., Wis. Adm. Code (MACT)]** | |

[14] If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency

**N. Process P46, Stack S46 - 235 Horsepower Firewater Pump**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 3. Hazardous Air Pollutant Emissions: National Emission Standard For Hazardous Air Pollutants (Maximum Achievable Control Technology (MACT)) for Stationary Reciprocating Internal Combustion Engines (RICE) in 40 CFR Part 63 Subpart ZZZZ (63.6580-63.6675) (continued) | (a) Change oil and filter every 500 hours of operation or annually, whichever comes first, or utilize an oil analysis program pursuant to 40 CFR §63.6625(i) or (j) to extend the specified oil change requirement;<br>(b) For compression ignition engines, inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;<br>(c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[15] **[40 CFR § 63.6602 and Table 2c, s. 285.65(13), Wis. Stats. (MACT)]**<br><br>(3) Startup: During periods of startup the permittee shall minimize the engine's time | | |

has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[16] The general duty to minimize emissions does not require permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[15] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

**N. Process P46, Stack S46 - 235 Horsepower Firewater Pump**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 3. Hazardous Air Pollutant Emissions: National Emission Standard For Hazardous Air Pollutants (Maximum Achievable Control Technology (MACT)) for Stationary Reciprocating Internal Combustion Engines (RICE) in 40 CFR Part 63 Subpart ZZZZ (63.6580-63.6675) (continued) | spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. Sources can petition the department pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices. **[40 CFR §§ 63.6602, 63.6625(h), and Table 2c, s. 285.65(13), Wis. Stats. (MACT)]** | | |

**O. Process I1 — 15 Kilowatt Emergency Generator**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. General Operation | (1) Emergency generator (I1) shall not be operated for no more than 200 hours per year.[17] **[s. NR 400.02(56), Wis. Adm. Code]** | (1) The recordkeeping requirement in I.O.1.c.(1) serves as the compliance demonstration requirement. **[s. 285.65(7), Wis. Stats.]** | (1) **Records:** The permittee shall keep records of when the emergency generator is operated. These records shall include:<br>(a) Date of operation;<br>(b) Start-up time of the generator;<br>(c) Shut-down time of the generator; and<br>(d) The hours of operation of the generator in one year.<br>**[s. NR 439.04(1)(d), Wis. Adm. Code]**<br><br>(2) When the generator is operating, the permittee shall maintain records of the hours of operation per year to ensure that the generator never exceeds 200 hours of operation per year. **[ss. 285.65(3) and 285.63(1)(a), Wis. Stats.]** |
| 2. Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) in 40 CFR Part 60 Subpart IIII (60.4200-60-4219) | (1) The permittee shall meet the following Tier 2 requirements"<br>(a) Carbon monoxide emissions shall not exceed 6.6 grams per kilowatt-hour (g/kW-hr),<br>(b) Non-methane hydrocarbons (NMHC) and nitrogen oxide emissions combined shall not exceed 9.5 grams per kilowatt-hour (g/kW-hr),<br>AND<br>(c) Particulate matter emissions shall not exceed 0.80 grams per kilowatt-hour (g/kW-hr). | (1) The permittee shall install a non-resettable hour meter. **[s. 285.65(13), Wis. Stats., 40 CFR 60.4209(a)]**<br><br>(2) The permittee shall do the following:<br>(a) operate and maintain the stationary compression ignition internal combustion engine and control device according to the manufacturer's emission-related written instructions,<br>(b) change only those emission-related settings that are permitted by the manufacturer,<br>AND<br>(c) meet the general compliance provisions requirements of 40 CFR Part 1068<br>**[s. 285.65(13), Wis. Stats., 40 CFR** | (1) The permittee shall keep records of the following:<br>(a) the sulfur content in the diesel fuel AND<br>(b) cetane index or aromatic content.<br>**[s. NR 439.04(1)(d), Wis. Adm. Code]**<br><br>(2) The permittee shall keep records of the following:<br>(a) the hours of operation during emergency situations,<br>(b) the hours of operation for maintenance checks and readiness testing,<br>(c) the hours of operation for non-emergency situations, AND<br>(d) the reason for operating Emergency Generator (I1).<br>**[s. 285.65(13), Wis. Stats., 40 CFR 60.4214(b)]**<br><br>(3) If contractually obligated to be available for more than 15 hours per calendar year for emergency demand response in I.O.2.b.(3)(b)(ii) or for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency in I.O.2.b.(3)(b)(iii), the permittee shall submit an annual |

[17] The 200 hours of operation includes testing, emergency situations, and any other use approved by the department. If the diesel generator exceeds 200 hours of operation per year, a construction permit review will be required.

**O. Process I1 — 15 Kilowatt Emergency Generator**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 2. Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) in 40 CFR Part 60 Subpart IIII (60.4200-60-4219) (continued) | **[s. 285.65(13), Wis. Stats., 40 CFR 60.4205(b), 40 CFR 60.4202(1)(1)(i), 40 CFR 89.112, Table 1]**<br><br>(2) The permittee shall only fire diesel fuel that meets the following:<br>(a) Sulfur content in the diesel fuel shall not exceed 15 parts per million (ppm) maximum for NR diesel fuel.<br>(b) Cetane index or aromatic content in the diesel fuel shall not exceed the following:<br>(i) A minimum cetane index of 40; or<br>(ii) A maximum aromatic content of 35 volume percent.<br>**[s. 285.65(13), Wis. Stats., 40 CFR 60.4207(b), 40 CFR 80.510(b)(1) and (2)]** | **60.4211(a)(1), (2), and (3)]**<br><br>(3) The permittee shall operate the Emergency Generator (I1) according to the following requirements. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations is prohibited. If you do not operate the engine according to the following requirements, the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines.<br>(a) Emergency Situations: There is no time limit for operating in emergency situations.<br>(b) Maintenance Checks And Readiness Testing, Emergency Demand Response, or Deviation of Voltage or Frequency: Emergency Generator (I1) may be operated for maintenance checks and readiness testing for a maximum of 100 hours per calendar year for the following situations. Any operation for non-emergency situations as allowed by I.O.2.(b)(3)(c) counts as part of the 100 hours per calendar year.<br>(i) *Maintenance Checks And Readiness Testing:* Emergency Generator (I1) may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or | report containing the following information:<br>(a) company name and address where the engine is located,<br>(b) date of the report and beginning and ending dates of the reporting period,<br>(c) Engine site rating and model year,<br>(d) latitude and longitude of the engine in decimal degrees reported to the fifth decimal place,<br>(e) date, start time, end time, and hours operated for the purposes of emergency demand response in I.O.2.b.(3)(b)(ii) and when there is a deviation of voltage or frequency in I.O.2.b.(3)(b)(iii),<br>(f) Number of hours the engine is contractually obligated to be available for the purposes of emergency demand response in I.O.2.b.(3)(b)(ii) and when there is a deviation of voltage or frequency in I.O.2.b.(3)(b)(iii)<br>(g) the annual report is due by March 31 for the previous calendar year<br>(h) the annual report shall be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, IL 60604-3590.<br>**[s. 285.65(13), Wis. Stats., 40 CFR 60.4214(d)(1), (2), and (3)]** |

**O. Process I1 — 15 Kilowatt Emergency Generator**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 2. Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) in 40 CFR Part 60 Subpart IIII (60.4200-60-4219) (continued) | | local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency generator beyond 100 hours per calendar year.<br>(ii) *Emergency Demand Response:* Emergency Generator (I1) may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.<br>(iii) *Deviation of Voltage or Frequency:* Emergency Generator (I1) may be operated for periods | |

**O. Process I1 — 15 Kilowatt Emergency Generator**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 2. Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) in 40 CFR Part 60 Subpart IIII (60.4200-60-4219) (continued) | | where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.<br>(c) Non-Emergency Situations: Emergency Generator (I1) may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance checks and readiness testing. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **[s. 285.65(13), Wis. Stats., 40 CFR 60.4211(f)(1), (2), and (3)]**<br><br>(4) Hours of Operation: The permittee shall track all hours of operation for the emergency generator. The permittee must identify how many hours are spent for emergency operation, including what classified the hours as emergency operation, and how many hours are spent for non-emergency operation, including what classified the hours as non-emergency operation. **[s. NR 407.09(4)(a)3.b., Wis. Adm. Code]**<br><br>(5) Hours of Operation: At the end of | |

**O. Process I1 — 15 Kilowatt Emergency Generator**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 2. Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) in 40 CFR Part 60 Subpart IIII (60.4200-60-4219) (continued) | | each calendar year, the permittee shall determine the emergency generator's total hours of operation for non-emergency operation (excluding maintenance and readiness testing) for the just completed calendar year and total hours of operation for non-emergency operation (including maintenance and readiness testing) for the just completed calendar year. **[s. NR 407.09(4)(a)3.b., Wis. Adm. Code]** | |

**ZZZ. Other Conditions Applicable to the Entire Facility**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Facility Wide Volatile Organic Compound (VOC) Restriction | (1) Volatile organic compounds emissions (VOC) from the entire facility shall not exceed 8.25 tons per month (99 TPY) based on a 12 month rolling average.[18] **[s. 285.65(7), Wis. Stats., permit 99-RV-008-R1]** | (1) The following volatile organic compound content data shall be used to calculate volatile organic compound emissions:<br>(a) Coating Operations: Volatile organic compound content data from Material Safety Data Sheets (MSDS), Safety Data Sheets (SDS), material test data, performance test data based on U.S. EPA Method 24, an equivalent document provided by the supplier of each coating or raw material, or an equivalent data source approved by the department in writing shall be used to calculate the volatile organic compound emissions from the coating lines. If a range is given, the highest value in the range shall be used. Where these documents differ, the results from U.S. EPA Method 24 shall govern if available.<br>(b) Non-Coating and Non-Fuel Burning Operations: Volatile organic compound content data from Material Safety Data Sheets (MSDS), Safety Data Sheets (SDS), material test data, performance test data based on U.S. EPA Method 25, an equivalent document provided by the supplier of each raw material, or an equivalent source approved by the department in writing shall be used to calculate the volatile organic compound | (1) The permittee shall keep the following records:<br>(a) VOC content in each raw material in pounds per gallon;<br>(b) how the VOC content was determined;<br>(c) the emission factor source (e.g. Material Safety Data Sheets (MSDS), Safety Data Sheets (SDS), material test data, performance test data, etc.)<br>(d) confirm on an annual basis that all material safety data sheets or safety data sheets are accurate for coatings and solvents being used by the facility<br>**[ss. NR 439.04(1)(d) and NR 407.09(4)(a)1., Wis. Adm. Code]**<br><br>(2) The following records shall be compiled by the end of the following month:<br>(a) monthly usage of each raw material containing VOCs;<br>(b) daily throughputs or other throughput data collected within each month that is used to determine the monthly raw material throughput,<br>(c) monthly fuel usage;<br>(d) calculation of VOCs emitted in tons per month for each process ($X_{MEUn}$);<br>(e) sum of all VOCs emitted in tons per month from the entire facility ($E_{monthly}$);<br>(f) sum of all VOCs emitted from the entire facility in tons per month, averaged over a rolling 12 month period ($E_{total}$).<br>**[ss. NR 439.04(1)(d) and NR 407.09(4)(a)1., Wis. Adm. Code]**<br><br>(3) All records required by this permit shall be kept for a period of five (5) years. These records shall be made available to the department personnel anytime during normal working hours. **[s. NR 439.04(1)(d), Wis. Adm. Code]** |

[18] This VOC limit was established in construction permit 99-RV-008-R1 so the facility would be considered a PSD synthetic minor source and be exempt from s. NR 422.07, Wis. Adm. Code.

**ZZZ. Other Conditions Applicable to the Entire Facility**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Facility Wide Volatile Organic Compound (VOC) Restriction (continued) | | emissions from non-coating lines. If a range is given, the highest value in the range shall be used. Where these documents differ, the results from U.S. EPA Method 25 shall govern if available.<br>(c) #2 Fuel Oil Combustion: Volatile organic compound emission factor in section 1.3, AP-42, Fifth Edition for #2 fuel oil combustion, performance test data based on U.S. EPA Method 25, or equivalent emission data approved by the department in writing shall be used to calculate the volatile organic compound emissions from boilers B20 and B21 for #2 fuel oil combustion. If a range is given, the highest value in the range shall be used. Where these documents differ, the results of U.S. EPA Method 25 shall govern if available.<br>(d) Natural Gas Combustion: Volatile organic compound emission factor in section 1.4, AP-42, Fifth Edition for natural gas combustion, performance test data based on U.S. EPA Method 25, equipment manufacturer data, or equivalent emission data approved by the department in writing shall be used to calculate the volatile organic compound emissions from boilers B20 and B21 for natural gas combustion. If a range is given, the highest value in the range shall be used. Where these documents differ, the results of U.S. EPA Method 25 shall govern if available. | |

**ZZZ. Other Conditions Applicable to the Entire Facility**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Facility Wide Volatile Organic Compound (VOC) Restriction (continued) | | **[s. NR 407.09(4)(a)1., Wis. Adm. Code]**<br><br>(2) Monthly Emissions: The monthly volatile organic compound emissions from each process shall be calculated by the last day of each month, for the preceding month according to the following:<br>(a) mass balance method,<br><br>(b) Emission factor method:<br>**$X_{MEU}$ = (EF) * (Throughput) / (2,000 lb/ton)**<br><br>where,<br>**$X_{MEU}$** = monthly volatile organic compound emissions from each process (ton/month)<br>**EF** = emission factor: raw material VOC content (lb VOC/lb raw material) or maximum uncontrolled hourly emission rate (maximum application rate and raw material VOC content) (ton/hr)<br>**Throughput** = raw materials used (lb/month)<br><br>(c) emission testing,<br>OR<br>(d) another equivalent emission calculation method approved by the department in writing.<br>**[s. NR 407.09(4)(a)1., Wis. Adm. Code]**<br><br>(3) Total Monthly Emissions: The | |

**ZZZ. Other Conditions Applicable to the Entire Facility**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 1. Facility Wide Volatile Organic Compound (VOC) Restriction (continued) | | monthly volatile organic compound emissions from the entire facility shall be calculated by the last day of each month, for the preceding month according to the following:<br><br>$\mathbf{E_{monthly} = \Sigma X_{MEUn}}$<br><br>where,<br>$\mathbf{E_{monthly}}$ = total monthly VOC emissions from the entire facility (ton/month)<br>$\mathbf{X_{MEUn}}$ = tons of VOC emissions in a month from each process as calculated in condition I.ZZZ.1.b.(2) (ton/month)<br>**[s. NR 407.09(4)(a)1., Wis. Adm. Code]**<br><br>(4) Total Emissions: The total volatile organic compound emissions from the entire facility averaged over 12 months shall be calculated according to the following:<br><br>$\mathbf{E_{total} = \Sigma E_{monthly} / 12}$<br>where,<br>$\mathbf{E_{total}}$ = tons of all VOC emitted averaged over 12 months (ton/month);<br>$\mathbf{E_{monthly}}$ = total monthly VOC emissions from the entire facility (ton/month) as calculated in condition I.ZZZ.1.b.(3) (ton/month)<br>**[s. NR 407.09(4)(a)1., Wis. Adm. Code]** | |
| 2. Alternate Operating Scenario: Use | (1) The permittee may use a raw material not included in the application reviewed for | (2) Please refer to the condition in I.ZZZ.2.c.(1) for all requirements. | (1) The permittee shall maintain the records indicating:<br>(a) manufacturer's design specification allowing the use of the alternative material, |

**ZZZ. Other Conditions Applicable to the Entire Facility**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| of materials not included in the permit application* | this permit, if the following are satisfied:<br>(a) The source has continuously had such design capability.<br>(b) The use will not cause or exacerbate the violation of an ambient air quality standard or an ambient air increment.<br>(c) The use is not prohibited by any permit, plan approval or special order applicable to the source.<br>(d) The use will not result in a violation of any emission limit in chs. NR 405, 408, 409, 415 to 436 and 445.<br>(e) The use will not subject the source to any standard or regulation under section 112 of the Act (42 USC 7412).<br>**[s. 285.65(7), Wis. Stats. and s. NR 406.04(4)(a)4., Wis. Adm. Code]** | | (b) use of the alternative material will not cause the ambient air quality standard or an ambient air increment to be exceeded,<br>(c) the use of the alternative material is not prohibited by any permit, plan approval or special order applicable to the source,<br>(d) the use of the alternative material will not result in a violation of any emission limit in chs. NR 405, 408, 409, 415 to 436 and 445, Wis. Adm. Code, and<br>(e) the use of the alternative material will not cause the facility to be subject to a standard or regulation under section 112 of the Act (42 USC 7412).<br>**[s. NR 439.04(1)(d), Wis. Adm. Code]** |
| 3. Stack Testing | (1) If the compliance emission test(s) cannot be conducted within the time frames specified in this permit, the permit holder may request and the Department may approve, in writing, an extension of time to conduct the test(s). **[s. NR** | (1) Two copies of the report on any compliance emission tests shall be submitted to the Department for evaluation within 60 days following the completion of tests. **[s. NR 439.07(9), Wis. Adm. Code]** | None Applicable. |

**ZZZ. Other Conditions Applicable to the Entire Facility**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 3. Stack Testing (continued) | **439.07, Wis. Adm. Code]**<br><br>(2) 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. **[s. NR 439.07(1), Wis. Adm. Code]**<br><br>(3) The Department shall be informed at least 20 working days prior to a 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. The notification and test plan shall be submitted to the Wisconsin Department of Natural Resources, | | |

**ZZZ. Other Conditions Applicable to the Entire Facility**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 3. Stack Testing (continued) | Cumberland Area Office, 1341 2nd Avenue, Cumberland, WI 54829. **[s. NR 439.07(2), Wis. Adm. Code]** | | |
| 4. Reporting | (1) The permittee shall periodically submit monitoring and compliance reports. **[s. NR 407.09(1)(c)3., Wis. Adm. Code]** | (1) Monitoring Reports:<br>(a) The permittee shall submit the results of monitoring or a summary of monitoring results required by this permit to the Department every 6 months.<br>(b) The time periods to be addressed by the submittal are: January 1 to June 30 and July 1 to December 31.<br>(c) The report shall be submitted to the Wisconsin Department of Natural Resources, Cumberland Area Office, 1341 2nd Avenue, Cumberland, WI 54829 within 60 days after the end of each reporting period.<br>(d) All deviations from and exceedences of applicable requirements shall be clearly identified in the submittal.<br>(e) Each submittal shall be certified by a responsible official as to the truth, accuracy and completeness of the report. **[s. NR 439.03(1)(b), Wis. Adm. Code]**<br><br>(2) Compliance Certification:<br>(a) The permittee shall submit an annual certification of compliance with the requirements of this permit to the Wisconsin Department of Natural Resources, Cumberland Area Office, 1341 2nd Avenue, Cumberland, WI | None. |

**ZZZ. Other Conditions Applicable to the Entire Facility**

| POLLUTANT | a. LIMITATIONS | b. COMPLIANCE DEMONSTRATION | c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS |
|---|---|---|---|
| 4. Reporting (continued) | | 54829.<br>(b) The time period to be addressed by the report is the dates: January 1 to December 31 period which precedes the report.<br>(c) The report shall be submitted to the Wisconsin Department of Natural Resources, Cumberland Area Office, 1341 2nd Avenue, Cumberland, WI 54829 within 60 days after the end of each reporting period.<br>(d) The information included in the report shall comply with the requirements of Part II Section N of this permit.<br>(e) A responsible official as to the truth, accuracy and completeness of the report shall certify each report. **[s. NR 439.03(1)(c), Wis. Adm. Code]** | |

## PART II
## General Permit Conditions For Construction Permits Issued To Direct Stationary Sources

**A. Scope**

This permit is valid only for the structure, building, facility, equipment or operation specifically identified herein. All emissions authorized hereby shall be in compliance with the terms and conditions of Parts I and II of this permit. [s. 285.60(7), Wis. Stats.]

**B. Emissions Prohibited**

Unless the Department has approved an exception under s. NR 436.03(2), no person may cause, allow, or permit emissions of any air contaminant into the ambient air in excess of the limits set in chs. NR 400 to 499, Wis. Adm. Code. [s. NR 436.03(1), Wis. Adm. Code]

**C. General Emission Limits**

1. No person may cause, allow, or permit particulate matter to be emitted into the ambient air which substantially contributes to exceeding of an air standard, or creates air pollution. [s. NR 415.03, Wis. Adm. Code]

2. 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 the following [s. NR 415.04, Wis. Adm. Code]:

   a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, or construction operations.

   b. Application of asphalt, oil, 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.

   c. Installation and use of hoods, fans and air cleaning devices to enclose and vent the areas where dusty materials are handled.

   d. Covering or securing of materials likely to become airborne while being moved on public roads, railroads, or navigable waters.

   e. Conduct of agricultural practices such as tilling of land or application of fertilizers in such manner as not to create air pollution.

   f. The paving or maintenance of roadway areas so as not to create air pollution.

3. No person may cause, allow or permit emission of sulfur or sulfur compounds into the ambient air which substantially contribute to the exceeding of an air standard or cause air pollution. [s. NR 417.03, Wis. Adm. Code]

4. No person may cause, allow or permit organic compound emissions into the ambient air which substantially contribute to the exceeding of an air standard or cause air pollution. [s. NR 419.03(1), Wis. Adm. Code]

5. No person may cause, allow or permit the disposal of more than 5.7 liters (1.5 gallons) of any liquid Volatile Organic Compound (VOC) waste, or of any liquid, semisolid or solid waste materials containing more than 5.7 liters (1.5 gallons) of any VOC, in any one day from a facility in a manner that would permit their evaporation into the ambient air during the ozone season. This includes, but is not limited to, the disposal of VOC which must be removed from VOC control devices so as to maintain the control devices at their required operating efficiency. Disposal during the ozone season shall be by methods approved by the Department, such as incineration, recovery for reuse, or transfer in closed containers to an acceptable disposal facility, such that the quantity of VOC which

evaporates into the ambient air does not exceed 15% (by weight) or 5.7 liters (1.5 gallons) in any one day, whichever is larger. [s. NR 419.04, Wis. Adm. Code]

6. No person may cause, allow or permit emissions of carbon monoxide to the ambient air which substantially contribute to the exceeding of an air standard or cause air pollution. [s. NR 426.03, Wis. Adm. Code]

7. No person may cause, allow or permit emissions into the ambient air of lead or lead compounds which substantially contribute to the exceeding of an air standard or air increment, or which create air pollution. [s. NR 427.025, Wis. Adm. Code]

8. No person may cause, allow, or permit nitrogen oxides or nitrogen compounds to be emitted to the ambient air which substantially contribute to the exceeding of an air standard or cause air pollution. [s. NR 428.03, Wis. Adm. Code]

9. No person may cause, allow or permit emission into the ambient air of any substance or combination of substances in such quantities that an objectionable odor is determined to result unless preventive measures satisfactory to the Department are taken to abate or control such emission. [s. NR 429.03(1), Wis. Adm. Code]

10. Open burning is prohibited except as provided in s. NR 429.04, Wis. Adm. Code. [s. NR 429.04, Wis. Adm. Code]

    [Note: Under the Wisconsin Recycling Law, small businesses, commercial enterprises, and industries may not use burn barrels or engage in other kinds of open burning and may not be granted burning permits by municipalities. However, the prohibition on burn barrels does not apply to small businesses in which the owners reside at the same location and cannot separate their business waste from their household waste.]

11. No person may cause, allow or permit emissions into the ambient air from any direct or portable source in excess of one of the limits specified in ch. NR 431, Wis. Adm. Code. Where the presence of uncombined water is the only reason for failure to meet the requirements of ch. NR 431, Wis. Adm. Code, such failure is not a violation of the chapter. [s. NR 431.03, Wis. Adm. Code]

12. No person may cause, allow, or permit emissions into the ambient air of any hazardous substance in such quantity, concentration, or duration as to be injurious to human health, plant or animal life unless the purpose of that emission is for the control of plant or animal life. Hazardous substances include, but are not limited to, hazardous air contaminants listed in Tables A to C of s. NR 445.07, Wis. Adm. Code. [s. NR 445.03, Wis. Adm. Code]

13. Chapter NR 447, Wis. Adm. Code, applies to all air contaminant sources which may emit asbestos, to their owners and operators and to any person whose action causes the emission of asbestos to the ambient air, including demolition and renovation activities. Chapter NR 447, Wis. Adm. Code, establishes emission limitations for asbestos air contaminant sources, establishes procedures to be followed when working with asbestos materials and contains additional reporting and record keeping requirements for owners or operators of asbestos air contaminant sources in order to protect air quality. [ch. NR 447, Wis. Adm. Code]

14. When the department requires instrumentation to monitor the operation of air pollution control equipment, or to monitor source performance, the instrument shall measure operational variables with the following accuracy: [s. NR 439.055(3), Wis. Adm. Code]

    a. The temperature monitoring device shall have an accuracy of 0.5% of the temperature being measured in degrees Fahrenheit or ±5°F of the temperature being measured, or the equivalent in degrees Celsius (centigrade), whichever is greater.

    b. 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.

c. The current, voltage, flow or pH monitoring device shall be accurate to within 5% of the specific variable being measured.

15. All instruments used for measuring source or air pollution control equipment operational variables shall be calibrated yearly or at a frequency based on good engineering practice as established by operational history, whichever is more frequent. [s. NR 439.055(4), Wis. Adm. Code]

**D. Reporting Requirements**

1. The Department shall be notified of the following events:

| Event | Timing |
|---|---|
| a. Hazardous substance air spill | Immediate call: 1-800-943-0003 |
| b. Malfunction or other unscheduled event which causes or may cause any emission limitation to be exceeded [except certain visible emission limit exceedances - see s. NR 439.03(4), Wis. Adm. Code]. | Notification by next business day of any such event at the source which is not reported in advance to the Department. Report the cause and duration of the exceedance, the period of time considered necessary for correction, and measures taken to minimize emissions during the period |
| c. Deviation from any other condition specified in this permit. | Notification by next business day identifying the deviation, cause, duration and steps taken to prevent recurrence. |

[ss. 292.11(2) and 285.65(10), Wis. Stats., and ss. NR 439.03(4) and 445.16, Wis. Adm. Code]

2. The permittee shall report to the Department, in advance, schedules for planned shutdown and startup of air pollution control equipment and the measures to be taken to minimize the down time of the control equipment while the source is operating. Scheduled maintenance or any other scheduled event, including startup, shutdown or sootblowing procedures which have been approved by the Department under s. NR 436.03(2)(b), which causes an emission limit to be exceeded shall also be reported in advance to the Department. Advance reporting pursuant to this permit condition does not relieve any person from the duty to comply with any applicable emission limitations. [s. NR 439.03(6), Wis. Adm. Code]

3. Except for information determined to be confidential under s. 285.70(2), Wis. Stats., any information or reports obtained by the Department in the administration of ss. 285.01 to 285.87 and 299.15, Wis. Stats., will be available for public inspection at the offices of the Department. [s. 285.70(1), Wis. Stats.]

**E. Right of Entry and Inspection**

The permittee shall allow authorized representatives of the Department to enter upon the permittee's premises at any reasonable time, to have access to and examine any record relating to emissions or required to be kept, and to make any inspection necessary to ascertain compliance with air pollution control laws and the terms of this permit. The Department may, for the purpose of determining a source's compliance with applicable requirements, sample or monitor at reasonable times production materials or other substances or operational parameters. [ss. 285.13(6) and 285.19, Wis. Stats., and s. NR 439.05, Wis. Adm. Code]

**F. Malfunction Prevention and Abatement Plans**

The owner or operator of any direct or portable source which may emit hazardous substances or emits more than 15 pounds in any day or 3 pounds in any hour of any air contaminant for which emission limits have been adopted shall prepare a written malfunction prevention and abatement plan to prevent, detect, and correct malfunctions or equipment failures which may cause any applicable emission limitation to be violated or which may cause air pollution. Any such plan shall be carried

out by the owner or operator. The plan shall be updated at least every 5 years. The Department may require the plan to be submitted for review and approval. [s. NR 439.11, Wis. Adm. Code]

**G. Emission Control Action Plan**

For source(s) covered by this permit which emit 0.25 tons or more per day of any air contaminant for which air standards have been adopted, the permittee shall prepare an emission control action program, consistent with good industrial practice and safe operating procedures, for reducing the emission of air contaminants into the outdoor atmosphere during periods of an air pollution alert, air pollution warning or air pollution emergency declared under s. NR 493.03(2), Wis. Adm. Code. The emission control action program shall be in writing, available on the premises and is subject to review and approval by the Department on request. [s. NR 493.04, Wis. Adm. Code]

**H. Construction, Reconstruction, Replacement, Relocation or Modification**

1. Unless the replacement is authorized by a permit or is exempt under s. NR 406.04, Wis. Adm. Code, replacement of the source(s) covered by this permit is prohibited. [s. 285.60(1)(a), Wis. Stats.]

2. No person may commence construction, reconstruction, replacement, relocation or modification of a stationary source unless the person has a construction permit for the source or unless the source is exempt from the requirement to obtain a permit under s. 285.60(5), Wis. Stats., or under ch. NR 406, Wis. Adm. Code. Applications for the construction permit shall be submitted on forms which are available from the Department at its Madison headquarters and district offices. [s. 285.60(1)(a), Wis. Stats.]

   Note: The address of the Madison headquarters is: Wisconsin Department of Natural Resources, Bureau of Air Management, PO Box 7921, Madison, WI 53707, Attention: Permit Application Forms.

3. For new or modified sources for which no construction permit is required, the application for an operation permit shall be filed before the source commences construction or modification. [s. NR 407.04, Wis. Adm. Code]

**I. Payment of Construction Permit Application Fees**

Any person who obtains a construction permit shall pay the application fee within thirty days of the date of the billing statement. [s. NR 410.03(4), Wis. Adm. Code]

**J. Construction Permit Revision, Suspension, and Revocation**

A construction permit may be suspended, revoked or revised, in whole or in part, for cause. [s. NR 406.11, Wis. Adm. Code]

**K. Circumvention**

1. The installation or use of any article, machine, equipment, process, or method which conceals an emission which would otherwise constitute a violation of an applicable rule is prohibited unless written approval has been obtained from the Department. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance and the unnecessary separation of an operation into parts to avoid coverage by a rule that applies only to operations larger than a specified size. [s. NR 439.10, Wis. Adm. Code]

2. No one may render inaccurate any monitoring device or method required under ch. NR 439, Wis. Adm. Code, or in this permit. [s. NR 439.03(12), Wis. Adm. Code]

**L. Violations**

Any owner or operator who fails to construct a stationary source in accordance with the application as approved by the department; any owner or operator who fails to construct and operate a stationary source in accordance with conditions imposed by the department under s. 285.65, Wis. Stats.; any owner or operator who modifies a stationary source in violation of conditions imposed by the department under s. 285.65, Wis. Stats.; or any owner or operator who commences construction or modification of a stationary source without applying for and receiving a permit as required under this

chapter or ch. NR 408 shall be considered in violation of s. 285.60, Wis. Stats. [s. NR 406.10, Wis. Adm. Code]

**M. Duty to Comply**

Approval to construct or modify does not relieve any owner or operator of the responsibility to comply with the emission limits of chs. NR 400 to 499, the air quality standards of ch. NR 404 or the control strategies of all local, state and federal regulations which are part of the state implementation plan. [s. NR 406.13, Wis. Adm. Code]

**N. Recordkeeping Requirements**

1. The permittee shall maintain the following records:

   a. Records of all sampling, testing and monitoring conducted or required under chs. NR 400 to 499 or under this permit. Records of sampling, testing or monitoring shall include the following:

      1) The date, monitoring site and time and duration of sampling, testing, monitoring or measurements.

      2) The dates the analyses were performed.

      3) The company or entity that performed the analysis.

      4) The analytical techniques or methods used, including supporting information such as calibration and maintenance records of all original recording charts for continuous monitoring instrumentation including emissions or equipment monitors.

      5) The results of the analyses.

      6) The relevant operating conditions that existed at the time of sampling, testing, monitoring or measurement.

   b. Records detailing all malfunctions which cause any applicable emission limitation to be exceeded, including logs to document the implementation of the plan required under s. NR 439.11, Wis. Adm. Code;

   c. Records detailing all activities specified in any compliance schedule approved by the Department under chs. NR 400 to 499, Wis. Adm. Code; and

   d. Any other records relating to the emission of air contaminants which may be requested in writing by the Department.

   [s. NR 439.04, Wis. Adm. Code]

2. Copies of all records and reports required under this permit shall be retained by the permittee for a period of 5 years. [s. NR 439.04(2), Wis. Adm. Code]

**O. Required Air Emission Inventory Reports**

The permittee shall annually submit to the Department an emission inventory report of annual, actual emissions or throughput information in accordance with ch. NR 438, Wis. Adm. Code. [s. NR 438.03, Wis. Adm. Code]

**P. Annual Emission Fees**

The permittee shall pay an annual emissions fee to the Department at the rate specified in s. 285.69(2), Wis. Stats. [ss. NR 410.04 and NR 407.09(1)(e), Wis. Adm. Code]

**Q. General Provisions for Hazardous Air Pollutant MACT Standards.**

The general provisions in ch. NR 460, Wis. Adm. Code, apply to any permittee that is affected or becomes affected by a standard promulgated by EPA under section 112 of the act (42 USC 7412). [s. NR 460.01, Wis. Adm. Code]