

**Air Individual Permit  
Administrative Amendment  
00100024-104**

**Permittee:** American Peat Technology LLC  
**Facility name:** American Peat Technology LLC  
36203 350th Ave  
Aitkin, MN 56431-5558  
Aitkin County

**Operating permit issuance date:** June 21, 2019

**Expiration date:** June 21, 2024

**Administrative Amendment:** April 30, 2020

**Permit characteristics:** Federal; Part 70/ True minor for NSR; True Minor for NSR

The emission units, control equipment and emission stacks at the stationary source authorized in this permit amendment are as described in the submittals listed in the Permit Applications Table.

This permit amendment supersedes Air Emission Permit No. 00100024-103 and authorizes the Permittee to operate the stationary source at the address listed above unless otherwise noted in the permit. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the SIP under 40 CFR § 52.1220 and as such are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

*Signature:* *Toni Volkmeier*

*This document has been electronically signed.*

*for* Carolina Espejel-Schutt, P.E., Acting Manager  
Air Quality Permits Section  
Industrial Division

*for the Minnesota Pollution Control Agency*

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**1. Permit applications table**

Permit applications:

<b>Title description</b>	<b>Application receipt date</b>	<b>Action number</b>
Administrative Amendment	04/01/2020	00100024-104
Part 70 Permit	3/11/2019 (supplemental information received 4/24/2019)	00100024-102
Administrative Amendment	11/27/2019	00100024-103

## 2. Where to send submittals

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Chief Air Enforcement  
Air and Radiation Branch  
EPA Region V  
77 West Jackson Boulevard  
Chicago, Illinois 60604

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by Minn. R. 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency  
Clean Air Markets Division  
1200 Pennsylvania Avenue NW (6204N)  
Washington, D.C. 20460

Send any application for a permit or permit amendment to:

Fiscal Services – 6<sup>th</sup> Floor  
Minnesota Pollution Control Agency  
520 Lafayette Road North  
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Document Coordinator notices of:

- a. Accumulated insignificant activities
- b. Installation of control equipment
- c. Replacement of an emissions unit, and
- d. Changes that contravene a permit term

Unless another person is identified in the applicable Table, send all other submittals to:

AQ Compliance Tracking Coordinator  
Industrial Division  
Minnesota Pollution Control Agency  
520 Lafayette Road North  
St. Paul, Minnesota 55155-4194

**Or**

Email a signed and scanned PDF copy to:  
[submitstacktest.pca@state.mn.us](mailto:submitstacktest.pca@state.mn.us)  
(for submittals related to stack testing)  
[AQRoutineReport.PCA@state.mn.us](mailto:AQRoutineReport.PCA@state.mn.us)  
(for other compliance submittals)  
(See complete email instructions in “Routine Air Report Instructions Letter” at  
<http://www.pca.state.mn.us/nwqh472.>)

### 3. Facility description

The American Peat Technology LLC (Facility) is located at <NO\_DATA\_FOUND>, Aitkin County, Minnesota.

American Peat Technology harvests, dries, and processes reed-sedge peat to create a granular or powdered peat product. Almost all equipment included in the permit has already been constructed and the facility is currently operating. The only exception is the venturi scrubbers, which have not yet been constructed but are not necessary for compliance with any permit limit or requirement.

The peat harvest is conducted on a yearly cycle. During the summer months, the peatland is disked to accelerate air drying, and pushed into windrows. In the winter, when the ground is frozen enough to support large trucks and machinery, the trucks are loaded up with the windrowed peat using a backhoe. The peat is then transported about one mile to the production plant, where it is added to a pile sized to hold two years of reserve material. The pile is continually cultivated to encourage evaporation and minimize water infiltration. Throughout the year, peat from the reserve pile is transferred into the processing building as needed using front end loaders.

The peat is screened to remove sticks and rocks, and is either fed straight into the processing plant Stage 1 dryers at approximately 80% moisture, or fed into an initial dewatering process using filter presses to reduce the moisture content. If it will be dewatered, the peat is first transferred to a large tank where it is mixed with water. At this time a dewatering polymer and calcium carbonate may be added. Reed Sedge Peat is naturally acidic so the calcium carbonate is used to increase the pH. The slurry is then piped into filter presses for dewatering. The dewatered (about 67% moisture) cakes of peat are conveyed to one of two Stage 1 dryer/combustors. The dryer/combustors consist of a combustion chamber where wood chips are burned for heat, and a rotary drying chamber where the peat and heated air are mixed. Each dryer/combustor is routed to a cyclone for product recovery and particulate matter control, and each cyclone will be vented to a venturi scrubber for particulate matter control, once the scrubbers are constructed. Stage 1 drying reduces the moisture content to about 35% - 40%. The semi-dry peat is conveyed to a ribbon mixer where it is mixed with Stage 2 dryer fines, which are fine peat particles that are recovered from the Stage 2 dryer cyclone, and "-30 fines" which are undersized peat particles that are recovered from the final screening of the granulated peat. Calcium carbonate may also be added at this step. After mixing, the peat is pelletized in pellet mills and conveyed to the Stage 2 belt dryer or the Stage 2 rotary dryer. The belt dryer conveys the pellets through a chamber that is heated with air from a wood chip and propane-fired process heater. The air from the belt dryer will be vented to a venturi scrubber once it is constructed. The Stage 2 rotary dryer is heated with propane only and is controlled by a cyclone and a venturi scrubber (once constructed). Stage 2 drying reduces the moisture content down to about 12%. The dried peat pellets are conveyed to one of two crumblers that grind the pellets into granules. Both crumblers vent to the a cyclone and venturi scrubber (once constructed). The product is then screened to separate the granules from the fines. The granules are put in super sacks (1 ton storage sacks) for storage or transport. The fines are either routed to size reduction, to storage in super sacks, or recycled back to the ribbon mixer and pellet mills. Peat that is sent to the size reduction unit is ground into a powder that is routed to a baghouse. The powder that is captured by the baghouse is collected and sent to hoppers and super sacks for storage or transport.

The main pollutants of concern are particulate matter (PM), particulate matter less than ten microns (PM10), and particulate matter less than 2.5 microns (PM2.5) from wood burning and peat drying and handling, and nitrogen dioxide, carbon monoxide, and hazardous air pollutants (HAPs) from wood burning. Cyclones, venturi scrubbers, and a baghouse are used at various parts of the process to control particulate matter. This permit action is an Administrative Amendment under Minn. R. 7007.1400, subp. 1(H) to extend a performance test deadline in the permit.

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4. Summary of subject items

SI ID: Description	Relationship type	Related SI ID: Description
TFAC 1: American Peat Technology LLC		
ACTV 1: All IA's		
EQUI 7: Stage #1 Dryer/Combustor #1	sends to	STRU 11: Scrubber exhaust
EQUI 7: Stage #1 Dryer/Combustor #1	sends to	STRU 12: Combustor start up stack
EQUI 7: Stage #1 Dryer/Combustor #1	is controlled by	TREA 9: Stage #1 Dryer Cyclone #1
EQUI 7: Stage #1 Dryer/Combustor #1	is controlled by	TREA 10: Stage #1 Dryer Scrubber #1
EQUI 8: Stage #1 Dryer/Combustor #2	sends to	STRU 11: Scrubber exhaust
EQUI 8: Stage #1 Dryer/Combustor #2	sends to	STRU 12: Combustor start up stack
EQUI 8: Stage #1 Dryer/Combustor #2	is controlled by	TREA 11: Stage #1 Dryer Cyclone #2
EQUI 8: Stage #1 Dryer/Combustor #2	is controlled by	TREA 12: Stage #1 Dryer Scrubber #2
EQUI 9: Stage #2 Rotary Dryer	sends to	STRU 11: Scrubber exhaust
EQUI 9: Stage #2 Rotary Dryer	is controlled by	TREA 12: Stage #1 Dryer Scrubber #2
EQUI 9: Stage #2 Rotary Dryer	is controlled by	TREA 13: Stage #2 Rotary Dryer Fines Cyclone
EQUI 10: Stage #2 Belt Dryer	sends to	STRU 11: Scrubber exhaust
EQUI 10: Stage #2 Belt Dryer	is controlled by	TREA 10: Stage #1 Dryer Scrubber #1
EQUI 11: Stage #2 Process Heater	sends to	STRU 14: Stage #2 process heater stack
EQUI 12: Crumbler 1	sends to	STRU 11: Scrubber

SI ID: Description	Relationship type	Related SI ID: Description
		exhaust
EQUI 12: Crumbler 1	is controlled by	TREA 12: Stage #1 Dryer Scrubber #2
EQUI 12: Crumbler 1	is controlled by	TREA 13: Stage #2 Rotary Dryer Fines Cyclone
EQUI 13: Size Reduction	sends to	STRU 13: Size reduction air sweep exhaust
EQUI 13: Size Reduction	is controlled by	TREA 14: Size Reduction Baghouse
EQUI 14: Crumbler 2	sends to	STRU 11: Scrubber exhaust
EQUI 14: Crumbler 2	is controlled by	TREA 12: Stage #1 Dryer Scrubber #2
EQUI 14: Crumbler 2	is controlled by	TREA 13: Stage #2 Rotary Dryer Fines Cyclone
STRU 7: Production Building		
STRU 8: Chip Storage Building		
STRU 9: Warehouse		
STRU 10: Main Baghouse		
STRU 11: Scrubber exhaust		
STRU 12: Combustor start up stack		
STRU 13: Size reduction air sweep exhaust		
STRU 14: Stage #2 process heater stack		
TREA 9: Stage #1 Dryer Cyclone #1	is controlled in series by	TREA 10: Stage #1 Dryer Scrubber #1
TREA 10: Stage #1 Dryer Scrubber #1		
TREA 11: Stage #1 Dryer Cyclone #2	is controlled in series by	TREA 12: Stage #1 Dryer Scrubber #2

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<b>SI ID: Description</b>	<b>Relationship type</b>	<b>Related SI ID: Description</b>
TREA 12: Stage #1 Dryer Scrubber #2		
TREA 13: Stage #2 Rotary Dryer Fines	is controlled in series by	TREA 12: Stage #1 Dryer

<b>SI ID: Description</b>	<b>Relationship type</b>	<b>Related SI ID: Description</b>
Cyclone		Scrubber #2
TREA 14: Size Reduction Baghouse		

## 5. Limits and other requirements

Requirement number	Requirement and citation
<b>TFAC 1</b>	<b>American Peat Technology LLC</b>
5.1.1	Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in Appendix A, Insignificant Activities and General Applicable Requirements. [Minn. R. 7007.0800, subp. 2]
5.1.2	PERMIT SHIELD: Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.  This permit shall not alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance. [Minn. R. 7007.1800(A)(2)]
5.1.3	The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0090. Compliance shall be demonstrated upon written request by the MPCA. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.4	Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted. [Minn. R. 7011.0020]
5.1.5	Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated. [Minn. R. 7007.0800, subp. 16(J), Minn. R. 7007.0800, subp. 2]
5.1.6	Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 16(J)]
5.1.7	Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate. [Minn. R. 7019.1000, subp. 4]
5.1.8	Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150. [Minn. R. 7011.0150]
5.1.9	Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act. [Minn. R. 7030.0010-7030.0080]
5.1.10	Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A). [Minn. R. 7007.0800, subp. 9(A)]

Requirement number	Requirement and citation
5.1.11	The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. [Minn. R. 7007.0800, subp. 16]
5.1.12	Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in this permit. [Minn. R. ch. 7017]
5.1.13	Performance Test Notifications and Submittals:  Performance Test Notification and Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test  The Notification, Test Plan, and Test Report must be submitted in a format specified by the commissioner. [Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]
5.1.14	Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025, subp. 3]
5.1.15	Monitoring Equipment Calibration - The Permittee shall either:  1. Calibrate or replace required monitoring equipment every 12 months; or 2. Calibrate at the frequency stated in the manufacturer's specifications.  For each monitor, the Permittee shall maintain a record of all calibrations, including the date conducted, and any corrective action that resulted. The Permittee shall include the calibration frequencies, procedures, and manufacturer's specifications (if applicable) in the Operations and Maintenance Plan. Any requirements applying to continuous emission monitors are listed separately in this permit. [Minn. R. 7007.0800, subp. 4(D)]
5.1.16	Operation of Monitoring Equipment: Unless noted elsewhere in this permit, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system. [Minn. R. 7007.0800, subp. 4(D)]
5.1.17	Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A). [Minn. R. 7007.0800, subp. 5(C)]
5.1.18	Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes. [Minn. R. 7007.0800, subp. 5(B)]
5.1.19	If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. For expiring permits, these records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format. [Minn. R. 7007.1200, subp. 4]
5.1.20	Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown

Requirement number	Requirement and citation
	<p>of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in items A, B, and C of Minn. R. 7019.1000, subp. 3.</p> <p>At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over. [Minn. R. 7019.1000, subp. 3]</p>
5.1.21	<p>Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in items A, B, and C of Minn. R. 7019.1000, subp. 2.</p> <p>At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over. [Minn. R. 7019.1000, subp. 2]</p>
5.1.22	<p>Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment. [Minn. R. 7019.1000, subp. 1]</p>
5.1.23	<p>Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description:</p> <ol style="list-style-type: none"> <li>1. the cause of the deviation;</li> <li>2. the exact dates of the period of the deviation, if the deviation has been corrected;</li> <li>3. whether or not the deviation has been corrected;</li> <li>4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and</li> <li>5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. [Minn. R. 7019.1000, subp. 1]</li> </ol>
5.1.24	<p>Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.</p> <p>Upon adoption of a new or amended federal applicable requirement, and if there are 3 or more years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150 - 7007.1500]</p>
5.1.25	<p>Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet the requirements of Minn. R. 7007.1400, subp. 1(H). [Minn. R. 7007.1400, subp. 1(H)]</p>
5.1.26	<p>Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. Submit in a format specified by the Commissioner. [Minn. R. 7019.3000-7019.3100]</p>
5.1.27	<p>Emission Fees: due 30 days after receipt of an MPCA bill. [Minn. R. 7002.0005-7002.0085]</p>

Requirement number	Requirement and citation
<b>EQUI 7</b>	<b>Stage #1 Dryer/Combustor #1</b>
5.2.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.2.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.2.3	The Permittee shall vent emissions from EQUI 7 to control equipment meeting the requirements of TREA 9 and TREA 10 (once installed) whenever EQUI 7 operates. [Minn. R. 7005.0100, subp. 35a, Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0075, subp. 1]
<b>EQUI 8</b>	<b>Stage #1 Dryer/Combustor #2</b>
5.3.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.3.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.3.3	The Permittee shall vent emissions from EQUI 8 to control equipment meeting the requirements of TREA 11 and TREA 12 (once installed) whenever EQUI 8 operates. [Minn. R. 7005.0100, subp. 35a, Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0075, subp. 1]
<b>EQUI 9</b>	<b>Stage #2 Rotary Dryer</b>
5.4.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.4.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.4.3	The Permittee shall vent emissions from EQUI 9 to control equipment meeting the requirements of TREA 12 (once installed) and TREA 13 whenever EQUI 9 operates. [Minn. R. 7005.0100, subp. 35a, Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0075, subp. 1]
<b>EQUI 10</b>	<b>Stage #2 Belt Dryer</b>
5.5.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.5.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.5.3	The Permittee shall vent emissions from EQUI 10 to control equipment meeting the requirements of TREA 10 (once installed) whenever EQUI 10 operates. [Minn. R. 7005.0100, subp. 35a, Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0075, subp. 1]
<b>EQUI 11</b>	<b>Stage #2 Process Heater</b>
5.6.1	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.6.2	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
5.6.3	Filterable Particulate Matter <= 0.40 pounds per million Btu heat input. The potential to emit from the unit is 0.33 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.6.4	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0515, subp. 2]
5.6.5	Sulfur Dioxide <= 4.0 pounds per million Btu heat input while burning wood chips. The potential to emit from the unit is 0.025 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]

Requirement number	Requirement and citation
<b>EQUI 12</b>	<b>Crumbler 1</b>
5.7.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.7.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.7.3	The Permittee shall vent emissions from EQUI 12 to control equipment meeting the requirements of TREA 12 (once installed) and TREA 13 whenever EQUI 12 operates. [Minn. R. 7005.0100, subp. 35a, Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0075, subp. 1]
<b>EQUI 13</b>	<b>Size Reduction</b>
5.8.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.8.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.8.3	The Permittee shall vent emissions from EQUI 13 to control equipment meeting the requirements of TREA 14 whenever EQUI 13 operates. [Minn. R. 7005.0100, subp. 35a, Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0075, subp. 1]
<b>EQUI 14</b>	<b>Crumbler 2</b>
5.9.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.9.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.9.3	The Permittee shall vent emissions from EQUI 14 to control equipment meeting the requirements of TREA 12 (once installed) and TREA 13 whenever EQUI 14 operates. [Minn. R. 7005.0100, subp. 35a, Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0075, subp. 1]
<b>STRU 11</b>	<b>Scrubber exhaust</b>
5.10.1	After the initial testing for PM, PM10, PM2.5, and VOC is complete, the Permittee shall verify that the facility potential emissions do not exceed the major source thresholds under 40 CFR 52.21(b)(1)(i). The Permittee shall do this by calculating the total facility potential to emit for each pollutant by taking the measured hourly emission rate multiplied by 8760 and adding that to the annual potential emissions from EQUI 11 and 13, which are the only emission units that do not vent to STRU 11. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
<b>TREA 9</b>	<b>Stage #1 Dryer Cyclone #1</b>
5.11.1	If the Permittee replaces TREA 9, the replacement control must meet or exceed the control efficiency requirements of TREA 9 as well as comply with all other requirements of TREA 9. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.  If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 2(B)]
5.11.2	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter >= 90 percent control efficiency. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0070, subp. 1(A)]
5.11.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron >= 78 percent control efficiency. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0070, subp. 1(A)]
5.11.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency

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	for PM < 2.5 micron >= 78 percent control efficiency. [Minn. R. 7007.0800, subp. 2(B)]
5.11.5	<p>Pressure Drop &gt;= 4.0 and &lt;= 7.0 inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.</p> <p>The Permittee shall record the pressure drop at least once every 24 hours when in operation. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7011.0075, subp. 1, Minn. R. 7011.0080(A)]</p>
5.11.6	The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee shall vent emissions from EQUI 7 to TREA 9 whenever EQUI 7 operates, and operate and maintain TREA 9 at all times that any emissions are vented to TREA 9. The Permittee shall document periods of non-operation of the control equipment TREA 9 whenever EQUI 7 is operating. [Minn. R. 7011.0075, subp. 1]
5.11.7	Recordkeeping of Pressure Drop: The Permittee shall record the time and date of each pressure drop reading, and whether or not the recorded values were within the ranges specified in this permit. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.0080]
5.11.8	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> <li>- the recorded pressure drop is outside the required operating range; or</li> <li>- the cyclone or any of its components are found during the inspections to need repair.</li> </ul> <p>Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O &amp; M) Plan for the cyclone. The Permittee shall keep a record of the type and date of any corrective action taken for each cyclone. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]</p>
5.11.9	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored cyclone is in operation. [Minn. R. 7011.0075, subp. 3]
5.11.10	<p>The Permittee shall maintain each piece of control equipment according to the control equipment manufacturer's specifications, and shall:</p> <ul style="list-style-type: none"> <li>A. maintain an inventory of spare parts that are subject to frequent replacement, as required by the manufacturing specification or documented in records under items H and I;</li> <li>B. train staff on the operation and monitoring of control equipment and troubleshooting, and train and require staff to respond to indications of malfunctioning equipment;</li> <li>C. thoroughly inspect all control equipment at least annually, or as required by the manufacturing specification;</li> <li>D. inspect monthly, or as required by the manufacturing specification, components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts;</li> <li>E. inspect quarterly, or as required by the manufacturing specification, components that are not subject to wear including structural components, housings, ducts, and hoods;</li> <li>F. check daily, or as required by the manufacturing specification, monitoring equipment, for example: pressure gauges, chart recorders, temperature indicators, and recorders;</li> <li>G. calibrate (or replace) annually, or as required by the manufacturing specification, all monitoring</li> </ul>

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	<p>equipment;</p> <p>H. maintain a record of activities conducted in items A to G consisting of the activity completed, the date the activity was completed, and any corrective action taken; and</p> <p>I. maintain a record of parts replaced, repaired, or modified for the previous five years. [Minn. R. 7011.0075, subp. 2]</p>
<b>TREA 10</b>	<b>Stage #1 Dryer Scrubber #1</b>
5.12.1	<p>If the Permittee replaces TREA 10, the replacement control must meet or exceed the control efficiency requirements of TREA 10 as well as comply with all other requirements of TREA 10. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 2(B)]</p>
5.12.2	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter <math>\geq</math> 94 percent control efficiency. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0070, subp. 1(A)]</p>
5.12.3	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM &lt; 10 micron <math>\geq</math> 84 percent control efficiency. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0070, subp. 1(A)]</p>
5.12.4	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM &lt; 2.5 micron <math>\geq</math> 84 percent control efficiency. [Minn. R. 7007.0800, subp. 2(B)]</p>
5.12.5	<p>Water flow rate <math>\geq</math> 2.0 gallons per minute, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change.</p> <p>The Permittee shall record the water flow rate at least once every 24 hours when in operation. If the recorded flow rate is below the minimum flow rate limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the minimum flow rate limit. The period of time for which the flow rate is below the minimum limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7011.0075, subp. 1, Minn. R. 7011.0080(A)]</p>
5.12.6	<p>Pressure Drop <math>\geq</math> 11.0 and <math>\leq</math> 18.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.</p> <p>The Permittee shall record the pressure drop at least once every 24 hours when in operation. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7011.0075, subp. 1, Minn. R. 7011.0080(A)]</p>
5.12.7	<p>The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee shall vent emissions from EQUI 7 and EQUI 10 to TREA 10 (once installed) whenever EQUI 7 or EQUI 10 operates, and operate and maintain TREA 10 at all times that any emissions are vented to TREA 10. The Permittee shall document periods of non-operation of the control equipment TREA 10 whenever EQUI 7 or EQUI 10 is operating. [Minn. R. 7011.0075, subp. 1]</p>

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5.12.8	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall record the time and date of each pressure drop reading and water flow rate reading, and whether or not the recorded values were within the ranges specified in this permit. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.0080]
5.12.9	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> <li>- the recorded flow rate is below the required rate;</li> <li>- the recorded pressure drop is outside the required operating range; or</li> <li>- the scrubber or any of its components are found during the inspections to need repair.</li> </ul> <p>Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O &amp; M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for the scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]</p>
5.12.10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7011.0075, subp. 3]
5.12.11	<p>The Permittee shall maintain each piece of control equipment according to the control equipment manufacturer's specifications, and shall:</p> <ul style="list-style-type: none"> <li>A. maintain an inventory of spare parts that are subject to frequent replacement, as required by the manufacturing specification or documented in records under items H and I;</li> <li>B. train staff on the operation and monitoring of control equipment and troubleshooting, and train and require staff to respond to indications of malfunctioning equipment;</li> <li>C. thoroughly inspect all control equipment at least annually, or as required by the manufacturing specification;</li> <li>D. inspect monthly, or as required by the manufacturing specification, components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts;</li> <li>E. inspect quarterly, or as required by the manufacturing specification, components that are not subject to wear including structural components, housings, ducts, and hoods;</li> <li>F. check daily, or as required by the manufacturing specification, monitoring equipment, for example: pressure gauges, chart recorders, temperature indicators, and recorders;</li> <li>G. calibrate (or replace) annually, or as required by the manufacturing specification, all monitoring equipment;</li> <li>H. maintain a record of activities conducted in items A to G consisting of the activity completed, the date the activity was completed, and any corrective action taken; and</li> <li>I. maintain a record of parts replaced, repaired, or modified for the previous five years. [Minn. R. 7011.0075, subp. 2]</li> </ul>
<b>TREA 11</b>	<b>Stage #1 Dryer Cyclone #2</b>
5.13.1	<p>If the Permittee replaces TREA 11, the replacement control must meet or exceed the control efficiency requirements of TREA 11 as well as comply with all other requirements of TREA 11. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 2(B)]</p>
5.13.2	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 90 percent control efficiency. [Minn. R. 7007.0800, subp. 2(B), Minn. R.

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	7011.0070, subp. 1(A)]
5.13.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 78 percent control efficiency. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0070, subp. 1(A)]
5.13.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 78 percent control efficiency. [Minn. R. 7007.0800, subp. 2(B)]
5.13.5	<p>Pressure Drop <math>\geq</math> 4.0 and <math>\leq</math> 7.0 inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.</p> <p>The Permittee shall record the pressure drop at least once every 24 hours when in operation. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7011.0075, subp. 1, Minn. R. 7011.0080(A)]</p>
5.13.6	The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee shall vent emissions from EQUI 8 to TREA 11 whenever EQUI 8 operates, and operate and maintain TREA 11 at all times that any emissions are vented to TREA 11. The Permittee shall document periods of non-operation of the control equipment TREA 11 whenever EQUI 8 is operating. [Minn. R. 7011.0075, subp. 1]
5.13.7	Recordkeeping of Pressure Drop: The Permittee shall record the time and date of each pressure drop reading, and whether or not the recorded values were within the ranges specified in this permit. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.0080]
5.13.8	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> <li>- the recorded pressure drop is outside the required operating range; or</li> <li>- the cyclone or any of its components are found during the inspections to need repair.</li> </ul> <p>Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O &amp; M) Plan for the cyclone. The Permittee shall keep a record of the type and date of any corrective action taken for the cyclone. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]</p>
5.13.9	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored cyclone is in operation. [Minn. R. 7011.0075, subp. 3]
5.13.10	<p>The Permittee shall maintain each piece of control equipment according to the control equipment manufacturer's specifications, and shall:</p> <ul style="list-style-type: none"> <li>A. maintain an inventory of spare parts that are subject to frequent replacement, as required by the manufacturing specification or documented in records under items H and I;</li> <li>B. train staff on the operation and monitoring of control equipment and troubleshooting, and train and require staff to respond to indications of malfunctioning equipment;</li> <li>C. thoroughly inspect all control equipment at least annually, or as required by the manufacturing specification;</li> <li>D. inspect monthly, or as required by the manufacturing specification, components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts;</li> </ul>

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	<p>E. inspect quarterly, or as required by the manufacturing specification, components that are not subject to wear including structural components, housings, ducts, and hoods;</p> <p>F. check daily, or as required by the manufacturing specification, monitoring equipment, for example: pressure gauges, chart recorders, temperature indicators, and recorders;</p> <p>G. calibrate (or replace) annually, or as required by the manufacturing specification, all monitoring equipment;</p> <p>H. maintain a record of activities conducted in items A to G consisting of the activity completed, the date the activity was completed, and any corrective action taken; and</p> <p>I. maintain a record of parts replaced, repaired, or modified for the previous five years. [Minn. R. 7011.0075, subp. 2]</p>
<b>TREA 12</b>	<b>Stage #1 Dryer Scrubber #2</b>
5.14.1	<p>If the Permittee replaces TREA 12, the replacement control must meet or exceed the control efficiency requirements of TREA 12 as well as comply with all other requirements of TREA 12. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 2(B)]</p>
5.14.2	<p>Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range or water flow rate, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]</p>
5.14.3	<p>As required by 40 CFR Section 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]</p>
5.14.4	<p>The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]</p>
5.14.5	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter <math>\geq</math> 94 percent control efficiency. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0070, subp. 1(A)]</p>
5.14.6	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM &lt; 10 micron <math>\geq</math> 84 percent control efficiency. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0070, subp. 1(A)]</p>
5.14.7	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM &lt; 2.5 micron <math>\geq</math> 84 percent control efficiency. [Minn. R. 7007.0800, subp. 2(B)]</p>
5.14.8	<p>Pressure Drop <math>\geq</math> 11.0 and <math>\leq</math> 18.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon</p>

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	<p>receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.</p> <p>If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7011.0075, subp. 1, Minn. R. 7011.0080(A)]</p>
5.14.9	<p>Water flow rate <math>\geq</math> 2.0 gallons per minute, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change.</p> <p>If the recorded water flow rate is below the Water Flow Rate Limit, the emissions during that time shall be considered uncontrolled until the water flow rate is above the Water Flow Rate Limit. The period of time for which emissions are considered uncontrolled shall be reported as a deviation. [Minn. R. 7011.0075, subp. 1, Minn. R. 7011.0080(A)]</p>
5.14.10	<p>The Permittee shall operate and maintain the scrubber in accordance with the Operation and Maintenance (O &amp; M) Plan. The Permittee shall keep copies of the O &amp; M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]</p>
5.14.11	<p>Daily Inspections: The Permittee shall do the following, once each day of operation: 1). Read and record the scrubber liquid flow rate; and 2). Read and record the gas pressure drop across the scrubber. [Minn. R. 7007.0800, subps. 4-5]</p>
5.14.12	<p>Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall record the time and date of each pressure drop reading and water flow rate reading, and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7011.0080, Minn. R. 7017.0200]</p>
5.14.13	<p>The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee shall vent emissions from EQUI 8, EQUI 9, EQUI 12, and EQUI 14 to TREA 12 (once installed) whenever EQUI 8, EQUI 9, EQUI 12, or EQUI 14 operates, and operate and maintain TREA 12 at all times that any emissions are vented to TREA 12. The Permittee shall document periods of non-operation of the control equipment TREA 12 whenever EQUI 8, EQUI 9, EQUI 12, or EQUI 14 is operating. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0075, subp. 1]</p>
5.14.14	<p>Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop, water flow rate, and water supply pressure as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]</p>
5.14.15	<p>The Permittee shall calibrate the gauges at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]</p>
5.14.16	<p>Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [40 CFR 64.3, Minn. R. 7017.0200]</p>
5.14.17	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> <li>- the recorded water flow rate is below the water flow rate limit; or</li> <li>- the recorded pressure drop is outside the required operating range; or</li> <li>- the scrubber or any of its components are found during the inspections to need repair.</li> </ul>

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	<p>Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O &amp; M Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for the filter. [40 CFR 64.7(d), Minn. R. 7017.0200]</p>
<b>TREA 13</b>	<b>Stage #2 Rotary Dryer Fines Cyclone</b>
5.15.1	<p>If the Permittee replaces TREA 13, the replacement control must meet or exceed the control efficiency requirements of TREA 13 as well as comply with all other requirements of TREA 13. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 2(B)]</p>
5.15.2	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter <math>\geq 90</math> percent control efficiency. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0070, subp. 1(A)]</p>
5.15.3	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM &lt; 10 micron <math>\geq 78</math> percent control efficiency. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0070, subp. 1(A)]</p>
5.15.4	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM &lt; 2.5 micron <math>\geq 78</math> percent control efficiency. [Minn. R. 7007.0800, subp. 2(B)]</p>
5.15.5	<p>Pressure Drop <math>\geq 4.0</math> and <math>\leq 7.0</math> inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.</p> <p>The Permittee shall record the pressure drop at least once every 24 hours when in operation. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7011.0075, subp. 1, Minn. R. 7011.0080(A)]</p>
5.15.6	<p>The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee shall vent emissions from EQUI 9 and EQUI 12 to TREA 13 whenever EQUI 9 or EQUI 12 operates, and operate and maintain TREA 13 at all times that any emissions are vented to TREA 13. The Permittee shall document periods of non-operation of the control equipment TREA 13 whenever EQUI 9 or EQUI 12 is operating. [Minn. R. 7011.0075, subp. 1]</p>
5.15.7	<p>Recordkeeping of Pressure Drop: The Permittee shall record the time and date of each pressure drop reading, and whether or not the recorded values were within the ranges specified in this permit. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.0080]</p>
5.15.8	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> <li>- the recorded pressure drop is outside the required operating range; or</li> <li>- the cyclone or any of its components are found during the inspections to need repair.</li> </ul> <p>Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O &amp; M) Plan for the</p>

Requirement number	Requirement and citation
	cyclone. The Permittee shall keep a record of the type and date of any corrective action taken for each cyclone. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.15.9	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored cyclone is in operation. [Minn. R. 7011.0075, subp. 3]
5.15.10	<p>The Permittee shall maintain each piece of control equipment according to the control equipment manufacturer's specifications, and shall:</p> <p>A. maintain an inventory of spare parts that are subject to frequent replacement, as required by the manufacturing specification or documented in records under items H and I;</p> <p>B. train staff on the operation and monitoring of control equipment and troubleshooting, and train and require staff to respond to indications of malfunctioning equipment;</p> <p>C. thoroughly inspect all control equipment at least annually, or as required by the manufacturing specification;</p> <p>D. inspect monthly, or as required by the manufacturing specification, components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts;</p> <p>E. inspect quarterly, or as required by the manufacturing specification, components that are not subject to wear including structural components, housings, ducts, and hoods;</p> <p>F. check daily, or as required by the manufacturing specification, monitoring equipment, for example: pressure gauges, chart recorders, temperature indicators, and recorders;</p> <p>G. calibrate (or replace) annually, or as required by the manufacturing specification, all monitoring equipment;</p> <p>H. maintain a record of activities conducted in items A to G consisting of the activity completed, the date the activity was completed, and any corrective action taken; and</p> <p>I. maintain a record of parts replaced, repaired, or modified for the previous five years. [Minn. R. 7011.0075, subp. 2]</p>
<b>TREA 14</b>	<b>Size Reduction Baghouse</b>
5.16.1	<p>If the Permittee replaces TREA 14, the replacement control must meet or exceed the control efficiency requirements of TREA 14 as well as comply with all other requirements of TREA 14. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 2(B)]</p>
5.16.2	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq 99$ percent control efficiency. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0070, subp. 1(A)]
5.16.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq 93$ percent control efficiency. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7011.0070, subp. 1(A)]
5.16.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq 93$ percent control efficiency. [Minn. R. 7007.0800, subp. 2(B)]
5.16.5	Pressure Drop $\geq 1.0$ and $\leq 3.0$ inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.

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	If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7011.0080]
5.16.6	Visible Emissions: The Permittee shall check the fabric filter stack (STRU 13) for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation. [Minn. R. 7011.0080]
5.16.7	Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. [Minn. R. 7011.0080]
5.16.8	The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee shall vent emissions from EQUI 13 to TREA 14 whenever EQUI 13 operates, and operate and maintain TREA 14 at all times that any emissions are vented to TREA 14. The Permittee shall document periods of non-operation of the control equipment TREA 14 whenever EQUI 13 is operating. [Minn. R. 7011.0075, subp. 1]
5.16.9	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.16.10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7011.0075, subp. 3]
5.16.11	The Permittee shall maintain each piece of control equipment according to the control equipment manufacturer's specifications, and shall: A. maintain an inventory of spare parts that are subject to frequent replacement, as required by the manufacturing specification or documented in records under items H and I; B. train staff on the operation and monitoring of control equipment and troubleshooting, and train and require staff to respond to indications of malfunctioning equipment; C. thoroughly inspect all control equipment at least annually, or as required by the manufacturing specification; D. inspect monthly, or as required by the manufacturing specification, components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts; E. inspect quarterly, or as required by the manufacturing specification, components that are not subject to wear including structural components, housings, ducts, and hoods; F. check daily, or as required by the manufacturing specification, monitoring equipment, for example: pressure gauges, chart recorders, temperature indicators, and recorders; G. calibrate (or replace) annually, or as required by the manufacturing specification, all monitoring equipment;

Requirement number	Requirement and citation
	H. maintain a record of activities conducted in items A to G consisting of the activity completed, the date the activity was completed, and any corrective action taken; and I. maintain a record of parts replaced, repaired, or modified for the previous five years. [Minn. R. 7011.0075, subp. 2]

## 6. Submittal/action requirements

This section lists most of the submittals required by this permit. Please note that some submittal requirements may appear in the Limits and Other Requirements section, or, if applicable, within a Compliance Schedule section.

Requirement number	Requirement and citation
<b>TFAC 1</b>	<b>American Peat Technology LLC</b>
6.1.1	The Permittee shall submit a semiannual deviations report : Due semiannually, by the 30th of January and July. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. Submit this on form DRF-2 (Deviation Reporting Form). If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(A)(2)]
6.1.2	The Permittee shall submit a compliance certification : Due annually, by the 31st of January (for the previous calendar year). Submit this on form CR-04 (Annual Compliance Certification Report). This report covers all deviations experienced during the calendar year. If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(C)]
6.1.3	The Permittee shall submit an application for permit reissuance : Due 180 calendar days before Permit Expiration Date. [Minn. R. 7007.0400, subp. 2]
<b>EQUI 11</b>	<b>Stage #2 Process Heater</b>
6.2.1	Opacity: The Permittee shall conduct a performance test due before 180 days after 6/21/2019 and every 60 months thereafter to measure opacity.  The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below, unless further testing is not required. Further testing will not be required if the first test measures opacity less than 10%. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 9, or other method approved by MPCA in the performance test plan approval.  Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter.  Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
<b>STRU 11</b>	<b>Scrubber exhaust</b>
6.3.1	PM < 10 micron: The Permittee shall conduct a performance test due 180 days after permit issuance and every 120 months thereafter to verify the STRU 11 emission factor for PM < 10 micron.  The deadline for the first test is extended to 8/14/2020. Subsequent tests are due 12/18/2029 and

Requirement number	Requirement and citation
	<p>every 120 months thereafter.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 120 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.3.2	<p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test due 180 days after permit issuance and every 120 months thereafter to verify the emission factor of PM &lt; 2.5 microns.</p> <p>The deadline for the first test is extended to 8/14/2020. Subsequent tests are due 12/18/2029 and every 120 months thereafter.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 120 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.3.3	<p>Particulate Matter: The Permittee shall conduct a performance test due 180 days after permit issuance and every 120 months thereafter to verify the emission factor of Particulate Matter.</p> <p>The deadline for the first test is extended to 8/14/2020. Subsequent tests are due 12/18/2029 and every 120 months thereafter.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test</p>

Requirement number	Requirement and citation
6.3.4	<p>date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> <p>Volatile Organic Compounds: The Permittee shall conduct a performance test due 180 days after permit issuance and every 120 months thereafter to verify the emission factor of Volatile Organic Compounds.</p> <p>The deadline for the first test is extended to 8/14/2020. Subsequent tests are due 12/18/2029 and every 120 months thereafter.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 120 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>

## 7. Appendices

### Appendix A. Insignificant activities and general applicable requirements

The table below lists the insignificant activities that are currently at the Facility and their associated general applicable requirements.

Minn. R.	Rule description of the activity	General applicable requirement
Minn. R. 7007.1300, subp. 3(A)	Fuel Use: space heaters fueled by kerosene, natural gas, or propane, less than 420,000 Btu/hr <ul style="list-style-type: none"> <li>• <i>APT has two heating units with heat input capacity of 190,000 Btu/hr each</i></li> </ul>	PM <= 0.4 lb/MMBtu, depending on year constructed Opacity <= 20% with exceptions (Minn. R. 7011.0515)
Minn. R. 7007.1300, subp. 4	Individual units with potential or actual emissions meeting the criteria in Minn. R. 7007.1300, subp. 4(A)-(D) <ul style="list-style-type: none"> <li>• <i>APT has internally vented conveyors/drop points, screeners, and a surge bin with emissions under the thresholds of this subpart</i></li> </ul>	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)
Minn. R. 7007.1300, subp. 3(D)	Emissions from a laboratory, as defined in Minn. R. 7007.1300, subp. 3(d). <ul style="list-style-type: none"> <li>• <i>APT has an onsite laboratory with a lab hood and atomic absorption spectroscopy machine</i></li> </ul>	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011./0715)
Minn. R. 7007.1300, subp. 3(E)	Brazing, soldering, torch-cutting, or welding equipment <ul style="list-style-type: none"> <li>• <i>APT has welding equipment</i></li> </ul>	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)
Minn. R. 7007.1300, subp. 3(F)	Individual units with potential emissions less than 2000 lb/year of certain pollutants <ul style="list-style-type: none"> <li>• <i>APT has external peat handling activities with emissions under the thresholds of this subpart</i></li> </ul>	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)
Minn. R. 7007.1300, subp. 3(G)	Fugitive dust emissions from unpaved roads and parking lots <ul style="list-style-type: none"> <li>• <i>APT has unpaved entry roads and parking lots</i></li> </ul>	Requirement to take reasonable measures to prevent PM from becoming airborne (Minn. R. 7011.0150)