



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

10/28/2016

Certified Mail

Kathy Wiedeman
 P. H. Glatfelter Company - Chillicothe Facility
 232 East 8th Street
 Chillicothe, OH 45601

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL

Facility ID: 0671010028
 Permit Number: P0118906
 Permit Type: Administrative Modification
 County: Ross

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, Chillicothe Gazette. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically 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. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall and Ohio EPA DAPC, Southeast District Office
 Permit Review/Development Section 2195 Front Street
 Ohio EPA, DAPC Logan, OH 43138
 50 West Town Street, Suite 700
 P.O. Box 1049
 Columbus, Ohio 43216-1049

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Southeast District Office at (740)385-8501.

Sincerely,

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

Cc: U.S. EPA Region 5 -Via E-Mail Notification
 Ohio EPA-SEDO; Kentucky

Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

P.H. Glatfelter is Kraft paper mill located in Chillicothe, OH (Ross County).

The current permit action an administrative modification to the existing permit-to-install (PTI) P0118907 issued 7/20/2015 (for emissions unit B002 and B003) and PTI 06-07700 issued 2/14/2015 (for emissions unit B013). The administrative modification addresses the conversion of boiler B002 and B003 from coal/No. 2 fuel oil firing to natural gas/No. 2 fuel oil firing. The project also includes the addition of a fourth wet electrostatic precipitator (WESP) module on boiler B013.

The permit also addresses the incorporation of 40 CFR Part 63, Subpart DDDDD standards and facility wide SO₂ limitation to avoid US EPA's Data Requirement Rule (DRR) for the 2010 1-hour SO₂ primary NAAQs. A federally enforceable synthetic minor facility-wide restriction of 1,562 tons of SO₂, per rolling, 12-month summation has been placed in the permit to avoid the DRR requirements. In addition, the facility is restricting the sulfur content of the oil burned in emissions unit B002, B003, B011, B013, B014, and B015 to not exceed 1.15% sulfur by weight.

3. Facility Emissions and Attainment Status:

The facility is a major source as defined by 40 CFR Part 70 and OAC rule 3745-77. The mill also qualifies as a major stationary source as defined by 40 CFR 52.21.

4. Source Emissions:

Emission unit B002 (Boiler #7) was a wet bottom, pulverized coal-fired boiler having a maximum heat input capacity of 422 million BTU per hour, capable of firing #2 fuel as back up fuel, and is a backup control device for non-condensable gases generated by other facility emissions units. The unit was controlled with a cyclone/multi-clone, and electrostatic precipitator, a low nitrogen oxides concentric firing system and a vane close-coupled over fire air compartment. The unit is being converted to a natural gas-fired boiler having the same maximum heat input capacity, capable of firing number 2 fuel oil as backup fuel, and is a backup control device for non-condensable gases. The unit is equipped with 8 natural gas burners and 4 oil burners.

Emission unit B003 (Boiler #8) was a wall-fired, pulverized coal-fired boiler having a maximum heat input capacity of 505 million BTU per hour, capable of firing number 2 fuel oil as backup fuel, and is a backup control device for non-condensable gases generated by other facility emissions units. The emissions unit was controlled with a cyclone/multi-clone 4 low-NO_x staged combustion burners and an electrostatic precipitator. The emissions unit is converting to a natural gas-fired boiler having a 555 million BUT per hour maximum heat input capacity. The unit is capable of firing number 2 fuel oil as backup fuel, and is a backup control device for non-condensable gases. The emissions unit is equipped with 4 natural gas/oil burners and 2 natural gas burners.

Emissions unit B013 (Boiler #6) is a wood residue boiler rated at 539 MMBtu/hr (limited to 400 MMBtu/hr) controlled with cyclones, a wet scrubber, and a WESP. The unit is fueled by #2 fuel oil, Tire

Derived Fuel, non-condensable gases, dewatered sludge, and other milled wood wastes. A 4th module to the WESP is being added to this unit as part of the project.

The pre and post project emission estimate for B002, B003, and B013, are provided below:

Pollutant	Current PTE/Allowable for #7 boiler (TPY)	Post-Project PTE/Allowable for #7 (TPY)	Difference in emissions (post project minus current PTE/Allowable) (TPY)
CO	67.5	102.8	+35.3
Pb	3.5E-02	1.7E-02	-1.8E-02
NO _x	1,310.0	369.7	-940.3
PM	184.8	37.0	-147.8
PM ₁₀	184.8	31.0	-153.8
PM _{2.5}	184.8	20.8	-164
SO ₂	18,298.8	287.37	-18,011.43
VOC	2.7	18.5	+15.8
H ₂ SO ₄	75.8	0.3	-75.5
Fluorides	8.7	*	-8.7
CO ₂	380,109.6	301,381.9	-78,728.7
CH ₄	44.8	12.2	-32.6
N ₂ O	6.5	2.4	-4.1
CO _{2e}	383,173.1	302,416.1	-80,757
Total GHG	380,160.9	301,396.6	-78,764.3

*Glatfelter anticipates that fluorides will not be emitted based on review of US EPA AP-42 emission factors for natural gas and No. 2 fuel oil

Pollutant	Current PTE/Allowable for #8 boiler (TPY)	Post-Project PTE/Allowable for #8 (TPY)	Difference in emissions (post project minus current PTE/Allowable) (TPY)
CO	80.7	1,301.3	+1,220.6
Pb	4.2E-02	2.2E-02	-2E-02
NO _x	2,010.0	486.2	-1523.8
PM	221.2	48.6	-172.6
PM ₁₀	221.2	40.8	-180.4
PM _{2.5}	221.2	27.3	-193.9
SO ₂	21,897.8	377.94	-21,519.86
VOC	5.0	24.3	+19.3
H ₂ SO ₄	106	0.4	-105.6
Fluorides	10.4	*	-10.4
CO ₂	454,870.5	396,367.2	-58,503.3
CH ₄	53.6	16.1	-37.5
N ₂ O	7.8	3.2	-4.6

CO _{2e}	458,536.6	397,727.4	-60,809.2
Total GHG	454,931.9	396,386.5	-58,545.4

*Glatfelter anticipates that fluorides will not be emitted based on review of US EPA AP-42 emission factors for natural gas and No. 2 fuel oil

Pollutant	Current PTE/Allowable for #6 boiler (TPY)	Post-Project PTE/Allowable for #6 (TPY)	Difference in emissions (post project minus PTE/Allowable current (TPY)
CO	1,559.3	1,559.3	0
Pb	4.7E-02	4.7E-02	0
NO _x	1,033.7	1,033.7	0
PM	175.2	175.2	0
PM ₁₀	73.6	73.6	0
PM _{2.5}	73.6	58.5	-15.1
SO ₂	5,606.4	272.39	-5,334.01
VOC	89.4	89.4	0
H ₂ SO ₄	280.3	280.3	0
Fluorides	3.0E-02	3.0E-02	0
CO ₂	362,302.0	362,302.0	0
CH ₄	123.6	123.6	0
N ₂ O	16.2	16.2	0
CO _{2e}	367,140.9	367,140.9	0
Total GHG	362,343.7	362,343.7	0

The Potential for Significant Deterioration (PSD) applicability analysis to determine if a major modification is triggered with this project revealed that the project-related emissions increases of all regulated NSR pollutants were below the PSD significance threshold, therefore netting was not required (see permittee's application for additional information).

Although emissions of CO and VOC are expected to increase as a result of converting from coal to natural gas, the increases are believed to be far outweighed by the overall benefit to the environment from the reduction of other pollutants, such as NOX, SO₂, PM and greenhouse gases. Therefore, this project received an exemption from the requirement to obtain an Ohio EPA Division of Air Pollution Control PTI due to being a pollution prevention project that the Director had determined as environmentally beneficial at the facility. In addition, the project will result in emission from B013 remaining unchanged except for a projected decrease of PM and SO₂ per year. Therefore, this permit was processed as an administrative modification.

5. Conclusion:

The federally enforceable SO₂ emissions limits, operational restriction, monitoring, recordkeeping, and reporting requirements in this permit sufficiently limit the facility from being subject to U.S. EPA's DRR for the 2010 1-hour SO₂ primary NAAQs standard.

6. Please provide additional notes or comments as necessary:



The permit is written as such to have a set of terms and conditions for pre project and post project for each of the three emissions units contained in this permit (B002, B003, and B013).

7. Total Permit Allowable Emissions Summary (for informational purposes only):

Pollutant	Tons per year
SO2	937.7
NOx	1,889.6
CO	2,963.4
PM	260.8
PM2.5	106.6
PM10	145.4
VOC	132.2

PUBLIC NOTICE

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at: <http://epa.ohio.gov/actions.aspx> or Hearing Clerk, Ohio EPA, 50 W. Town St., Columbus, Ohio 43215. Ph: 614-644-2129 email: HClerk@epa.ohio.gov

Draft Air Pollution Permit-to-Install Administrative Modification

P. H. Glatfelter Company - Chillicothe Facility

232 East 8TH St., Chillicothe, OH 45601

ID#:P0118906

Date of Action: 10/28/2016

Permit Desc:Administrative modification to PTI P0118907 (B002 and B003) and PTI 06-07700 (B013) for the conversion of B002 and B003 from coal/No. 2 fuel oil firing to natural gas/No. 2 fuel oil firing and the addition of a fourth wet electrostatic precipitator module on boiler B013. The permit incorporates 40 CFR Part 61 Subpart DDDDD standards and facility wide SO2 limitation and sulfur fuel limitation to avoid US EPA's Data Requirement Rule (DRR) for the 2010 1-hour SO2 primary NAAQs..

A public hearing on the draft air permit is scheduled for Tuesday, 12/6/16 at 6:00PM at the Auditorium at Ohio University-Chillicothe, 101 University Dr., Chillicothe, OH 45601. All interested persons are entitled to attend or be represented and give written or oral comments on the draft permit at the hearing. Written comments on the draft permit must be received by 12/13/16. Comments received after this date will not be considered to be a part of the official record. Written comments may be sent to Christina Wieg at christina.wieg@epa.ohio.gov or Ohio EPA DAPC, Southeast District Office, 2195 Front Street, Logan, OH 43138. This administrative modification to PTI P0118907 (B002 and B003) and PTI 06-07700 (B013) is for the conversion of B002 and B003 from coal/No. 2 fuel oil firing to natural gas/No. 2 fuel oil firing to address USEPA's Boiler MACT requirements (40 CFR Part 63 Subpart DDDDD). This permit also incorporates the addition of a fourth wet electrostatic precipitator module on boiler B013. In addition, on 8/21/15 USEPA promulgated the Data Requirements Rule for the 2010 1-Hour Sulfur Dioxide (SO2) Primary National Ambient Air Quality Standard (NAAQS); Final Rule (80 FR 51052). Ohio EPA submitted to USEPA on 1/15/16, a list of sources subject to this rule, including P.H. Glatfelter. This list was approved by USEPA on 3/18/16. Pursuant to USEPA regulations (40 CFR 51.1203), air agencies may submit to U.S. EPA federally enforceable permit restrictions to reduce SO2 emissions below 2,000 tons per year ensuring attainment of the 2010 1-hour SO2 NAAQS. Per these regulations, the federally enforceable permit limits must be effective no later than 1/13/17. This Administrative permit modification establishes federally-enforceable SO2 emission limitation for the facility of 1,562 tons per year to satisfy 1-hour SO2 NAAQS. The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the ID # or: Christina Wieg, Ohio EPA DAPC, Southeast District Office, 2195 Front Street, Logan, OH 43138. Ph: (740)385-8501



DRAFT

**Division of Air Pollution Control
Permit-to-Install**

for

P. H. Glatfelter Company - Chillicothe Facility

Facility ID:	0671010028
Permit Number:	P0118906
Permit Type:	Administrative Modification
Issued:	10/28/2016
Effective:	To be entered upon final issuance



Division of Air Pollution Control
Permit-to-Install
for
P. H. Glatfelter Company - Chillicothe Facility

Table of Contents

Authorization	1
A. Standard Terms and Conditions	3
1. Federally Enforceable Standard Terms and Conditions	4
2. Severability Clause	4
3. General Requirements	4
4. Monitoring and Related Record Keeping and Reporting Requirements.....	5
5. Scheduled Maintenance/Malfunction Reporting	6
6. Compliance Requirements	6
7. Best Available Technology	7
8. Air Pollution Nuisance	8
9. Reporting Requirements	8
10. Applicability	8
11. Construction of New Sources(s) and Authorization to Install	8
12. Permit-To-Operate Application	9
13. Construction Compliance Certification	10
14. Public Disclosure	10
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations	10
16. Fees.....	10
17. Permit Transfers	10
18. Risk Management Plans	10
19. Title IV Provisions	10
B. Facility-Wide Terms and Conditions.....	11
C. Emissions Unit Terms and Conditions	25
1. B002, No.7 Boiler (prior to natural gas modification)	26
2. B002, No.7 Boiler (post natural gas modification).....	38
3. B003, No. 8 Boiler (prior to natural gas modification)	49
4. B003, No. 8 Boiler (post natural gas modification).....	61
5. B013, No. 6 Boiler (pre- natural gas project)	72
6. B013, No. 6 Boiler (post- natural gas project).....	86



Draft Permit-to-Install
P. H. Glatfelter Company - Chillicothe Facility
Permit Number: P0118906
Facility ID: 0671010028
Effective Date: To be entered upon final issuance

Authorization

Facility ID: 0671010028
Facility Description: Chillicothe Paper Mill.
Application Number(s): A0051433, M0003882
Permit Number: P0118906
Permit Description: Administrative modification to PTI P0118907 (B002 and B003) and PTI 06-07700 (B013) for the conversion of B002 and B003 from coal/No. 2 fuel oil firing to natural gas/No. 2 fuel oil firing and the addition of a fourth wet electrostatic precipitator module on boiler B013. The permit incorporates 40 CFR Part 61 Subpart DDDDD standards and facility wide SO₂ limitation and sulfur fuel limitation to avoid US EPA's Data Requirement Rule (DRR) for the 2010 1-hour SO₂ primary NAAQs.
Permit Type: Administrative Modification
Permit Fee: \$4,125.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 10/28/2016
Effective Date: To be entered upon final issuance

This document constitutes issuance to:

P. H. Glatfelter Company - Chillicothe Facility
232 East 8TH St.
Chillicothe, OH 45601

of a Permit-to-Install 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, Southeast District Office
2195 Front Street
Logan, OH 43138
(740)385-8501

The above named entity is hereby granted a Permit-to-Install for the 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 emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director



Authorization (continued)

Permit Number: P0118906

Permit Description: Administrative modification to PTI P0118907 (B002 and B003) and PTI 06-07700 (B013) for the conversion of B002 and B003 from coal/No. 2 fuel oil firing to natural gas/No. 2 fuel oil firing and the addition of a fourth wet electrostatic precipitator module on boiler B013. The permit incorporates 40 CFR Part 61 Subpart DDDDD standards and facility wide SO2 limitation and sulfur fuel limitation to avoid US EPA's Data Requirement Rule (DRR) for the 2010 1-hour SO2 primary NAAQs.

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

Emissions Unit ID:	B002
Company Equipment ID:	No.7 Boiler
Superseded Permit Number:	P0118907
General Permit Category and Type:	Not Applicable
 Emissions Unit ID:	 B003
Company Equipment ID:	No. 8 Boiler
Superseded Permit Number:	P0118907
General Permit Category and Type:	Not Applicable
 Emissions Unit ID:	 B013
Company Equipment ID:	No.6 Wood Residue Boiler
Superseded Permit Number:	06-07700
General Permit Category and Type:	Not Applicable



Draft Permit-to-Install
P. H. Glatfelter Company - Chillicothe Facility
Permit Number: P0118906
Facility ID: 0671010028
Effective Date: To be entered upon final issuance

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.



- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Southeast District Office. The written reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Ohio EPA DAPC, Southeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Southeast District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Ohio EPA DAPC, Southeast District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.



8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Southeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the

Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., 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) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., 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). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.



13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.



Draft Permit-to-Install
P. H. Glatfelter Company - Chillicothe Facility
Permit Number: P0118906
Facility ID: 0671010028
Effective Date: To be entered upon final issuance

B. Facility-Wide Terms and Conditions



1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.
2. The following emissions unit(s) contained in this permit is(are) subject to 40 CFR Part 63, Subpart DDDDD: B002, B003, and B013. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://www.ecfr.gov> or by contacting the appropriate Ohio EPA District office or local air agency.
3. The permittee shall comply with the applicable requirements of the most recent final promulgation of 40 CFR Part 63, Subpart DDDDD. Any amendment to 40 CFR Part 63, Subpart DDDDD shall supersede the Subpart DDDDD compliance limitations and/or options contained in this permit.
4. The permittee shall comply with the applicable general requirements under 40 CFR Part 63, Subpart DDDDD, including the following sections:

63.7540(h)	Notification requirement for switching fuels or making physical change to boiler and the fuel switch or physical change resulting in applicability of a different subcategory within 30 days of switch/change.
63.7560(a)-(c)	General record keeping requirements.
63.7565	General Provision in 63.1 through 63.15 that apply.
63.7570(a)	Subpart can be enforced by the delegated authority to the state as well as the EPA.
63.7570(b)	U.S. EPA retains authority listed in (b)(1) through (5) of this section and are not transferred to the state, however, U.S. EPA retains oversight of this subpart and can take enforcement actions, as appropriate.

5. Boiler MACT Project Emissions Tracking

The information detailed below takes effect following resumption of regular operations of No. 6, 7, and 8 Boilers after the changes detailed in the May 2015 application entitled “Boiler MACT/BART Project Permit-to-Install Application and Environmentally Beneficial Exemption Request” (referred to below as “Boiler MACT project”) and approved by OEPA in the September 23, 2015 Environmentally Beneficial Determination letter.

The permittee shall calculate and maintain a record of the annual emissions of regulated NSR pollutants, in tons per year on a calendar year basis, for the three (3) boilers for a period of 10 years following resumption of regular operations after the change based on the following table: Emissions Tracking Data^(a)	PM₁₀	PM_{2.5}	NO_x	CO	VOC
Boiler MACT Project Baseline Actual Emissions	236.0	206.1	1,835	2,284	32.3
PSD Significance Thresholds ^(b)	15	10	40	100	40
Boiler MACT Project Baseline Actual Emissions + PSD Significance Levels ^(c)	251.0	216.1	1,875	2,384	72.3

- (a) Only pollutants with a project-related emissions increase greater than 50% of the PSD significance level are subject to emissions tracking.
- (b) PSD significance levels as listed in OAC 3745-31-01(VVVVV).
- (c) If the combined actual emissions for the project exceed the "Project Baseline Actual Emissions + PSD Significance Levels", reporting is required.

For a period of 10 years, the permittee shall submit a report to the Administrator if the annual emissions, in tons per year, from the Boiler MACT project exceed the baseline actual emissions [as documented and maintained pursuant to OAC 3745-31-10(A)(1)], by a significant amount [as defined in OAC 3745-31-01(VVVVV)] for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection [as documented and maintained pursuant to OAC 3745-31-10(A)(1)(c)]. Such report shall be submitted to the Administrator within 60 days after the end of such year. The report shall contain the following:

- a. The name, address and telephone number of the major stationary source;
- b. The annual emissions as calculated pursuant to OAC 3745-31-10(A)(3); and
- c. Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

6. Nitrogen Oxides (NO_x) Budget Trading Program – OAC Chapter 3745-14

- a) The emissions units identified below are non-electric utility generating unit (non-EGU) NO_x budget units and CAIR NO_x units, as defined in OAC Chapter 3745-14 and OAC Chapter 3745-109, respectively. However, the federal Clean Air Interstate Rule (CAIR) adopted by Ohio in OAC Chapter 3745-109 has been vacated and replaced by the federal Cross State Air Pollution Rule (CSAPR), effective January 1, 2015. Only EGU sources are subject to the CSAPR requirements, therefore, pursuant to OAC rule 3745-14-01(C)(2)(a), the emissions units below remain subject to the non-EGU NO_x budget trading program requirements as set forth in OAC Chapter 3745-14:

Emissions Unit B001 – No.5 coal boiler;



Emissions Unit B002 – No. 7 coal boiler. Wet bottom, pulverized coal-fired boiler (C.E. model VU-405); and

Emissions Unit B003 – No. 8 coal boiler. Wet bottom, pulverized coal-fired boiler (C.E. Model VU-40).

Due to the CAIR vacatur and replacement, Ohio EPA has not yet re-implemented certain provisions of the NOx trading program requirements for non-EGUs as stipulated in OAC Chapter 3745-14 [see permit term 3.s)]. The permittee shall comply with the provisions of OAC Chapter 3745-14 for owner/operators of non-EGU NOx budget units identified in permit terms 3.b) through 3.r) below until such time as OAC Chapter 3745-14 is amended and/or the permittee is notified by Ohio EPA that all aspects of the NOx budget trading program for non-EGUs as specified in OAC Chapter 3745-14 have been re-implemented.

(Authority for term: OAC rule 3745-14-01(C)(1)(b), OAC rule 3745-14-01(C)(2)(a), and OAC rule 3745-77-07(A)(5))

- b) Ohio's State Implementation Plan (SIP), as approved by US EPA, contains NOx allowance allocations for the ozone season in Appendix B of OAC rule 3745-14-05 for the three NOx budget units listed above. As set forth in Appendix B, the following NOx allowances are in effect for each NOx budget unit until such time as SIP revisions to Appendix B are approved by US EPA and/or the permittee is notified by Ohio EPA that all aspects of the NOx budget trading program for non-EGUs as specified in OAC Chapter 3745-14 have been re-implemented and updated allocations have been established by the Director pursuant to OAC rule 3745-14-05(B) and (C):

Office of Regulatory Information System Facility Code - 0671010028

Table with 2 columns: NOx Budget Unit, NOx Allowance Allocation (in tons). Rows: B001 (182), B002 (205), B003 (248)

(Authority for term: OAC rule 3745-14-05(B)and OAC rule 3745-77-07(A)(5))

- c) The NOx authorized account representative, as defined in OAC rule 3745-14-01(B)(2)(zz), shall submit a complete NOx budget permit application, containing the information specified in (C)(1) of OAC rule 3745-14-03, in accordance with the deadlines specified in paragraphs (B)(2) and (B)(3) of OAC rule 3745-14-03. The NOx authorized account representative shall also submit, in a timely manner, any supplemental information that the Director determines is necessary in order to review a NOx budget permit application and issue or deny a NOx budget permit.

(Authority for term: OAC rules 3745-14-01(E)(1)(a)(i), 3745-14-01(E)(1)(a)(ii), 3745-14-03(B)(1), 3745-14-03(C)(1), and 3745-77-07(A)(5))

- d) Each ton of NOx emitted in excess of the NOx budget emission limitation, as defined in OAC rule 3745-14-01(B)(2)(aaa), shall constitute a separate violation of OAC Chapter 3745-14, the Clean Air Act, and applicable Ohio law. The owners and operators of a NOx budget unit that has

excess emissions, as defined in OAC rule 3745-14-01(B)(2)(z), in any control period, shall pay any fine, penalty, or assessment or comply with any other remedy imposed under OAC rule 3745-14-06(E)(4)(c).

(Authority for term: OAC rules 3745-14-01(E)(3)(b) and 3745-77-07(A)(5))

- e) The owner or operator of a NO_x budget unit shall comply with the prohibitions under OAC rule 3745-14-08(A)(5).

(Authority for term: OAC rules 3745-14-08(A)(5) and 3745-77-07(A)(5))

- f) The owners and operators of the NO_x budget unit shall keep on site at the source each of the following documents for a period of five years from the date the document is created: (This period may be extended for cause, at any time prior to the end of five years, in writing by the Director or Administrator.)

- (1) the account certificate of representation for the NO_x authorized account representative for the NO_x budget unit and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with paragraph (D) of OAC rule 3745-14-02, provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such documents are superseded because of the submission of a new account certificate or representation changing the NO_x authorized account representative;
- (2) all emission monitoring information, in accordance with OAC rule 3745-14-08;
- (3) copies of all reports, compliance certifications, and other submissions and all records made or required under the NO_x budget trading program; and
- (4) copies of all documents used to complete a NO_x budget permit application and any other submission under the NO_x budget trading program or to demonstrate compliance with the requirements of the NO_x budget trading program.

(Authority for term: OAC rules 3745-14-01(E)(5), 3745-14-02(D), and 3745-77-07(A)(5))

- g) The permittee, and to the extent applicable, the NO_x authorized account representative of the NO_x budget unit, shall comply with the monitoring and reporting requirements as provided in OAC rule 3745-14-08 and in 40 CFR Part 75, Subpart H. For purposes of complying with such requirements the definitions in OAC rule 3745-14-01(B) and in 40 CFR 72.2 shall apply, and the terms “affected unit,” “designated representative,” and “continuous emission monitoring system” (or “CEMS”) in 40 CFR Part 75 shall be replaced by the terms “NO_x budget unit,” “NO_x authorized account representative,” and “continuous emission monitoring system” (or “CEMS”), respectively, as defined in OAC rule 3745-14-01(B).

(Authority for term: OAC rules 3745-14-08(A) and 3745-77-07(A)(5))

- h) During each control period, the permittee shall operate and maintain equipment to continuously monitor and record nitrogen oxides emissions from the NO_x budget units identified above. Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 75. The permittee’s monitoring system shall comply with the alternate

monitoring provisions specified in the permittee's petition which has been approved by the Director and the Administrator in accordance with 40 CFR 75.66(l) and OAC rule 3745-14-08(F). This includes all systems required to monitor the NO_x emission rate and heat input. The permittee shall comply with the initial and re-certification procedures of 40 CFR Part 75. The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous nitrogen oxides monitoring system has been certified in accordance with 40 CFR Part 75. The certification documentation shall be made available to the Director upon request. For each control period, the permittee shall maintain records of the following data obtained by the continuous nitrogen oxides monitoring system: emissions of nitrogen oxides in lb/MMBtu actual heat input on an hourly average basis and emissions of nitrogen oxides in lbs/hr. Whenever the monitoring system fails to meet the quality assurance or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable procedures in Appendix D, or Appendix E of 40 CFR Part 75.

(Authority for term: OAC rules 3745-14-01(E)(2)(a), 3745-14-01(E)(5)(a)(ii), 3745-14-08(A)(2)(a) through (A)(2)(d), 3745-14-08(B)(2), 3745-14-08(C)(1), and 3745-77-07(A)(5))

- i) The permittee shall comply with the monitoring plan requirements of 40 CFR Part 75.62, except that the monitoring plan is only required to include information required by 40 CFR Part 75, Subpart H.

(Authority for term: OAC rules 3745-14-08(E)(2)(b) and 3745-77-07(A)(5))

- j) The NO_x authorized account representative of the NO_x budget unit shall submit the reports and compliance certifications required under the NO_x budget trading program, including those under OAC rules 3745-14-04 and 3745-14-08, to the Director and Administrator.

(Authority for term: OAC rules 3745-14-08(E)(5)(b) and 3745-77-07(A)(5))

- k) Each submission under the NO_x budget trading program shall be submitted, signed, and certified by the NO_x authorized account representative for each NO_x budget source on behalf of which the submission is made. Each such submission shall include the following certification statement by the NO_x authorized account representative:

"I am authorized to make this submission on behalf of the owners and operators of the NO_x budget sources or NO_x budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

(Authority for term: OAC rules 3745-14-02(A)(5) and 3745-77-07(A)(5))

- l) The NO_x authorized account representative shall submit quarterly reports covering the period May 1 through September 30 of each year and including the data described in 40 CFR Part 75.74(c)(6). The NO_x authorized account representative shall submit such quarterly reports, beginning with the calendar quarter covering May 1 through June 30, 2003. The NO_x authorized account representative shall submit each quarterly report to the Administrator within thirty days

following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in 40 CFR Part 75, Subpart H.

(Authority for term: OAC rules 3745-14-08(E)(4)(b), 3745-14-08(E)(4)(c)(ii), and 3745-77-07(A)(5))

- m) The NO_x authorized account representative shall submit to the Administrator a compliance certification in support of each quarterly report based on a reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The compliance certification shall state that:
- (1) the monitoring data submitted were recorded in accordance with the applicable requirements of OAC rule 3745-14-08 and 40 CFR Part 75, including the quality assurance procedures and specifications; and
 - (2) for a unit with add-on NO_x emission controls and for all hours where data are substituted in accordance with 40 CFR Part 75.34(a)(1), the add-on emission control were operating within the range of parameters listed in the quality assurance program under Appendix B of 40 CFR Part 75 and the substitute values do not systematically underestimate the NO_x emissions.

(Authority for term: OAC rules 3745-14-08(E)(4)(d) and 3745-77-07(A)(5))

- n) The NO_x authorized account representative for a NO_x budget unit shall submit written notice of monitoring system certification and re-certification test dates to the Director and the Administrator in accordance with 40 CFR Part 75.61. The NO_x authorized account representative shall submit a certification application to the Administrator, U.S. EPA, Region V Office, and the Director within forty-five days after completing all initial or re-certification tests required under paragraph (B) of OAC rule 3745-14-08, including the information required under Subpart H of 40 CFR Part 75.

(Authority for term: OAC rules 3745-14-08(D), 3745-14-08(E)(3), and 3745-77-07(A)(5))

- o) For each control period in which one or more NO_x budget units at a source are subject to the NO_x budget emission limitation, the NO_x authorized account representative of the source shall submit to the Director and the Administrator, by November 30 of that year, a compliance certification report for each source covering all such units. The NO_x authorized account representative shall include the following elements in the compliance certification report, in a format prescribed by the Administrator, concerning each unit at the source and subject to the NO_x budget emission limitation for the control period covered by the report:
- (1) identification of each NO_x budget unit; and
 - (2) the compliance certification under paragraph (A)(3) of OAC rule 3745-14-04.

[Note: The remaining elements that must be included in the compliance certification report pursuant to OAC rule 3745-14-04(A)(2)(b) and (c) are not fully implemented at this time and, therefore, are listed in term 3.s)(7) below.]

(Authority for term: OAC rules 3745-14-04(A)(1), 3745-14-04(A)(2), and 3745-77-07(A)(5))

p) In the compliance certification report under term 3.o)(2) above, the NO_x authorized account representative shall certify, based upon reasonable inquiry of those persons with the primary responsibility for operating the source and the NO_x budget units at the source in compliance with the NO_x budget trading program, whether each NO_x budget unit for which the compliance certification is submitted was operated during the calendar year covered by the report in compliance with the requirements of the NO_x budget trading program applicable to the unit, including all the following:

- (1) whether the unit was operated in compliance with the NO_x budget emission limitation;
- (2) whether the monitoring plan that governs the unit has been maintained to reflect the actual operation and monitoring of the unit, and contains all information necessary to attribute NO_x emissions to the unit, in accordance with OAC rule 3745-14-08;
- (3) whether all the NO_x emissions from the unit, or group of units (including the unit) using a common stack, were monitored or accounted for through the missing data procedures and reported in the quarterly monitoring reports, including whether conditional data were reported in the quarterly reports in accordance with OAC rule 3745-14-08, and if conditional data were reported, the permittee shall indicate whether the status of all conditional data has been resolved and all necessary quarterly report submissions have been made; and
- (4) whether the facts that form the basis for certification under OAC rule 3745-14-08 of each monitor at the unit or group of units (including the unit) using a common stack, or for using an excepted monitoring method or alternative monitoring method approved under OAC rule 3745-14-08, if any, have changed. If a change is required to be reported under term 3.o)(2) above, specify the nature of the change, the reason for the change, when the change occurred, and how the unit's compliance status was determined subsequent to the change, including what method was used to determine emissions when a change mandated the need for monitor re-certification.

(Authority for term: OAC rules 3745-14-04(A)(3) and 3745-77-07(A)(5))

q) The NO_x authorized account representative shall submit a complete NO_x budget permit renewal application for the NO_x budget source covering the NO_x budget units at the source in accordance with paragraph (E) of OAC rule 3745-77-08.

(Authority for term: OAC rules 3745-14-03(B)(3) and 3745-77-07(A)(5))

r) The emission measurements recorded and reported in accordance with OAC rule 3745-14-08 shall be used to determine compliance by the unit with the NO_x budget emission limitation under paragraph (E)(3) of OAC rule 3745-14-01.

(Authority for term: OAC rules 3745-14-01(E)(2)(b) and 3745-77-07(A)(5))

s) The below provisions in OAC Chapter 3745-14 outlining the mechanisms and requirements for deduction, transfer, and/or surrender of allowances are not in effect until such time as OAC Chapter 3745-14 is amended and/or the permittee is notified by Ohio EPA that all aspects of the NO_x budget trading program for non-EGUs as specified in OAC Chapter 3745-14 have been re-implemented:

- (1) Beginning May 31, 2004, the owners and operators of each NO_x budget source and each NO_x budget unit at the source shall hold NO_x allowances available for compliance deductions under paragraph (E) of OAC rule 3745-14-06, as of the NO_x allowance transfer deadline, in the unit's compliance account and the source's overdraft account in an amount not less than the total NO_x emissions for the control period from the unit, as determined in accordance with OAC rule 3745-14-08, plus any amount necessary to account for actual utilization under paragraph (C)(5) of OAC rule 3745-14-05 for the control period.

(Authority for term: OAC rules 3745-14-01(E)(3)(a), 3745-14-01(E)(3)(c), and 3745-77-07(A)(5))
- (2) NO_x allowances shall be held in, deducted from, or transferred among NO_x allowance tracking system accounts in accordance with OAC rules 3745-14-05, 3745-14-06, 3745-14-07, and 3745-14-09.

(Authority for term: OAC rules 3745-14-01(E)(3)(d) and 3745-77-07(A)(5))
- (3) A NO_x allowance shall not be deducted, in order to comply with the requirement under paragraph (E)(3)(a) of OAC rule 3745-14-01, for a control period in a year prior to the year for which the NO_x allowance was allocated.

(Authority for term: OAC rules 3745-14-01(E)(3)(e) and 3745-77-07(A)(5))
- (4) The owners and operators of a NO_x budget unit that has excess emissions, as defined in OAC rule 3745-14-01(B)(2)(z), in any control period shall surrender the NO_x allowances required for deduction under paragraph (E)(4)(a) of OAC rule 3745-14-06 and pay any fine, penalty, or assessment or comply with any other remedy imposed under paragraph (E)(4)(c) of OAC rule 3745-14-06.

(Authority for term: OAC rules 3745-14-01(E)(4)(a), 3745-14-01(E)(4)(b), and 3745-77-07(A)(5))
- (5) When recorded by the Administrator pursuant to OAC rules 3745-14-06 and 3745-14-07, every allocation, transfer, or deduction of a NO_x allowance to or from a NO_x budget unit's compliance account or the overdraft account of the source where the unit is located, is deemed to amend automatically, and become a part of, any NO_x budget permit of the NO_x budget unit by operation of law without any further review.

(Authority for term: OAC rules 3745-14-01(E)(3)(h) and 3745-77-07(A)(5))
- (6) Except as provided below, the Director shall revise the NO_x budget permit, as necessary, in accordance with OAC rule 3745-77-08. Each NO_x budget permit is deemed to incorporate automatically the definitions of terms under paragraph (B) of OAC rule 3745-14-01 and, when recorded by the Administrator, in accordance with OAC rules 3745-14-06 and 3745-14-07, every allocation, transfer, or deduction of a



NO_x allowance to or from the compliance accounts of the NO_x budget units covered by the permit or the overdraft account of the NO_x budget source covered by the permit.

(Authority for term: OAC rules 3745-14-03(D)(2), 3745-14-03(E)(1), and 3745-77-07(A)(5))

- (7) The NO_x authorized account representative shall include the following elements in the compliance certification report, in a format prescribed by the Administrator, concerning each unit at the source and subject to the NO_x budget emission limitation for the control period covered by the report:
 - a. at the NO_x authorized account representative's option, the serial numbers of the NO_x allowances that are to be deducted from each unit's compliance account or overdraft account under paragraph (E) of OAC rule 3745-14-06 for the control period; and
 - b. at the NO_x authorized account representative's option, for units sharing a common stack and having NO_x emissions that are not monitored separately or apportioned in accordance with OAC rule 3745-14-08, the percentage of allowances that is to be deducted from each unit's compliance account under paragraph (E)(5) of OAC rule 3745-14-06.

(Authority for term: OAC rules 3745-14-04(A)(2) and 3745-77-07(A)(5))

7. Clean Air Interstate Rule - OAC Chapter 3745-109

The permittee shall ensure that any CAIR NO_x, SO₂, or NO_x ozone season units complies with the requirements of OAC Chapter 3745-109, which includes submitting timely permit applications. The requirements of this rule will be specified in the Title V permit issued to this facility.

8. NO_x Budget Permit Revisions

The application submitted for this permit addresses any requirements related to NO_x Budget Permit Revisions pursuant to OAC rule 3745-14-03(E)(1) and 3745-109.

9. Facility-wide Sulfur Dioxide (SO₂) Restriction to avoid US. EPA's Data Requirements Rule (DRR) for 2010 1-hour SO₂ primary NAAQS (40 CFR Part 51 Subpart BB 51.1200-51.1205).

a) 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(D) (Synthetic minor to avoid DRR for	Total facility-wide SO ₂ emissions shall not exceed 1,562 tons, based upon a rolling,



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	2010 1-hour SO ₂ primary NAAQS per 40 CFR Part 51 Subpart BB 51.1200-51.1205)	12-month summation. The sulfur content of oil burned in emissions units B002, B003, B011, B013, B014, and B015 shall not exceed 0.15% sulfur by weight. See a)(2)a and a)(2)b below.

(2) Additional Terms and Conditions

- a. By limiting the sulfur content of fuel used and the tons of SO₂ per rolling, 12-summation, the facility is not subject to U.S. EPA's DRR for the 2010 1-hour SO₂ primary National Ambient Air Quality Standard (NAAQS).
- b. The applicable emission limitations and/or control requirements under OAC rule 3745-31-05(D) shall be effective beginning January 13, 2017.

b) Operational Restrictions

- (1) The quality of the oil burned in this emissions unit referenced in a)(1)a. shall meet a sulfur content that is sufficient to comply with the allowable SO₂ emission limitation specified in this permit.
- (2) The operation of SO₂ emitting sources shall be limited such that the maximum annual SO₂ emissions for the facility shall not exceed 1,562 tons, based upon a rolling, 12 - month summation. Based on the permittee's application, the facility SO₂ emissions sources at the time of permit issuance include the following*:

Source ID	Source Name
B002	No. 7 Boiler
B003	No. 8 Boiler
B011	No. 6 Boiler
B013	No. 1 Package Boiler
B014	No. 2 Package Boiler
B015	Lime Kiln
P001	Smelt Dissolving Tank
P005	No. 12 Paper Machine Dryer



P025	No. 24 Paper Machine Dryer
P021	Portable Air Compressor #2
P897	Portable Air Compressor #3
P870	Portable Air Compressor -1600
P971	Turbine Room Emergency Generator
B016	Turbine Room Emergency Generator

*facility-wide emission of de-minimus SO₂ emission sources with less than 1 TPY combined of SO₂ per rolling, 12-month summation, are not required to be considered when calculating the facility-wide SO₂ rolling, 12-month summation.

In addition, any SO₂ emission sources not identified above that are installed an/or operated at the facility after the issuance of this permit shall be considered when calculating the SO₂ rolling, 12-month summation for the facility.

c) **Monitoring and/or Recordkeeping Requirements**

(1) The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below:

a. **Alternative 1:**

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

b. **Alternative 2:**

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the

calculated sulfur dioxide emission rate (in lbs/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as ASTM methods D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

These records shall be retained for a minimum of 3 years and shall be made available for inspection, if requested.

- (2) The permittee shall collect and record the following information each month for all SO₂ emitting sources at the facility*:
 - a. The name and identification of each SO₂ emitting source at the facility
 - b. The type and quantity of fuel used in each emissions unit;
 - c. The emissions factor used to determine the SO₂ emissions for the source;
 - d. The monthly SO₂ emissions for each source, in tons (calculated by multiplying the quantity of fuel identified in b. by the emissions factor provided in c. above and converting to tons as needed); and
 - e. The rolling, 12-month summation of the facility-wide SO₂ emissions (calculated by summing the monthly SO₂ emissions for each source required by d. above on a 12-month, rolling basis).

The permittee shall maintain the information at the facility for a period of five years.

d) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that include the following information:
 - a. an identification of each month during which the total facility wide SO₂ emissions exceed 1,5562 tpy, as a rolling, 12-month summation; and
 - b. an identification of any oil burned in emissions units B002, B003, B011, B013, B014, or B015 that exceeded 0.15% sulfur by weight.

The quarterly deviation reports shall be submitted in accordance with Standard Terms and Conditions.

e) Testing Requirements

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

a. Emissions Limitation:

Total facility wide SO₂ emissions shall not exceed 1,562 tons, based upon a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in Term c)(1) and (2).

b. Emissions Limitation:

The sulfur content of oil burned in emissions units B002, B003, B011, B013, B014, and B015 shall not exceed 0.15% sulfur by weight.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in Term c)(1) and (2).

f) Miscellaneous Requirements

(1) None.



Draft Permit-to-Install
P. H. Glatfelter Company - Chillicothe Facility
Permit Number: P0118906
Facility ID: 0671010028
Effective Date: To be entered upon final issuance

C. Emissions Unit Terms and Conditions



1. B002, No.7 Boiler (prior to natural gas modification)

The information detailed below remains in effect until the resumption of regular operations of No. 7 Boiler after the changes detailed in the May 2015 application entitled “Boiler MACT/BART Project Permit-to-Install Application and Environmentally Beneficial Exemption Request” and approved by OEPA in the September 23, 2015 Environmentally Beneficial Determination letter. The changes include, but are not limited to, the conversion of the boiler from coal/No. 2 fuel oil firing to natural gas/ No. 2 fuel oil firing. (This permit serves as an administrative modification to P0118907 issued 7/20/2015).

Operations, Property and/or Equipment Description:

Emissions unit B002 (Boiler No. 7) is a wet bottom, pulverized coal-fired boiler (Combustion Engineering model VU-40S) having a maximum heat input capacity of 422 million Btu per hour, capable of firing # 2 fuel oil as backup fuel, and is a backup control device for non-condensable gases (NCG) generated by other facility emissions units. The unit is controlled with a cyclone/multi-clone, an electrostatic precipitator(ESP), a low nitrogen oxides concentric firing system and a vane close-coupled over fire air compartment (Alstom Power)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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)	See section c)(1) below.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from the exhaust stack serving emissions units B002 and B003 shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-10(C)(1)	Particulate emissions shall not exceed 0.10 pound per million Btu of actual heat input, when firing coal. The particulate emission limitation specified in 40 CFR Part 63, Subpart DDDDD for this emissions unit, when firing coal, is currently more stringent than this particulate emission limitation. After the specified compliance date for this emissions unit, this particulate emission

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		limitation will be less stringent than the particulate emission limitation established pursuant to Subpart DDDDD.
d.	OAC rule 3745-17-10(B)(1)	Particulate emissions shall not exceed 0.020 pound per million Btu of actual heat input, when firing only number 2 fuel oil. The particulate emission limitation specified in 40 CFR Part 63, Subpart DDDDD for this emissions unit, when firing only number 2 fuel oil, is currently more stringent than this particulate emission limitation. After the specified compliance date for this emissions unit, this particulate emission limitation will be less stringent than the particulate emission limitation established pursuant to Subpart DDDDD.
e.	OAC rule 3745-18-77(B)(1)	Sulfur dioxide emissions shall not exceed 9.9 pounds per million Btu actual heat input. After the compliance date listed under b)(2)b. below, this emission limitation will be less stringent than the emission limitation established pursuant to 40 CFR Part 51.308(e) (see b)(1)g. below).
f.	OAC Chapters 3745-14 and 3745-109	See section b)(2)a. below.
g.	40 CFR Part 51.308(e) Federally enforceable limitation to comply with the BART requirements of U.S. EPA's Regional Haze Regulations.	After the compliance date listed under b)(2)b. below, sulfur dioxide emissions from emissions units B002 and B003, combined, shall not exceed 24,930 pounds per calendar day.
h.	40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-63.7575) [In accordance with 40 CFR 63.7490(a)(1), 63.7499 and 63.7575, this emissions unit is an existing industrial boiler unit designed to burn coal/solid fossil fuel.]	See section b)(2)c. below. Also see 40 CFR Part 63.7500 and Table 2 to Subpart DDDDD.
i.	40 CFR Part 63, Subpart A	See 40 CFR Part 63.7565 and Table 10 to Subpart DDDDD for the Applicability of General Provisions to this Subpart.
j.	40 CFR Part 63, Subpart S [In accordance, 63.440, this facility is an existing kraft papermill plant site	This emissions unit is used to maintain compliance with the HAP control requirements outlined in 40 CFR 63.443.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	that is a major source as defined in 63.2 of subpart A.]	See c)(2), d)(9), and e)(4).

(2) Additional Terms and Conditions

- a. Refer to Part B. – Facility-Wide Terms and Conditions of the permit for the requirements of OAC Chapter 3745-14 "NO_x Budget Trading Program in Ohio" and OAC Chapter 3745-109 "Clean Air Interstate Rule."
- b. Emissions units B002 and B003 (Boilers No. 7 and No. 8, respectively) are subject to the Best Available Retrofit Technology (BART) requirements of the U.S. EPA's Regional Haze Regulations (40 CFR Part 51, Subpart P). The permittee shall operate and maintain control measures constituting an "alternative to BART" that will achieve greater reasonable progress than would be achieved through installation and operation of BART, as allowed under 40 CFR Part 51.308(e)(2).

In addition to using a cyclone/multi-clone and an ESP to control the particulate emissions, emissions unit B002 (Boiler No. 7) is equipped with an Alstom Power low nitrogen oxides (low-NO_x) concentric firing system and a vane close-coupled over fire air compartment, which, based upon Ohio EPA's analysis, satisfy the BART nitrogen oxides technology requirement.

The permittee shall achieve the required nitrogen oxides emission reduction by not later than January 31, 2017 by routinely employing the Alstom Power low-NO_x concentric firing system and vane close-coupled over fire air compartment, on a year-round basis, rather than limiting low-NO_x operation to the control period (May 1 through September 30) specified in OAC Chapter 3745-14.

The permittee shall achieve the required sulfur dioxide emission reduction, on a year-round basis, by not later than January 31, 2017. As part of this "alternative to BART," the permittee shall install, operate, and maintain control technology sufficient to meet the emissions limitation in section b)(1)g. This may include an add-on control device, use of an alternative fuel, use of low sulfur fuel, permanent shut down of emissions unit B002, or a combination of these measures. By no later than January 31, 2017, the permittee shall submit to Ohio EPA an application for modification of this federally enforceable permit. The application shall include a compliance plan outlining, at a minimum, the specific, selected control technologies and methods of compliance; and these requirements, along with any appropriate monitoring, record keeping, and reporting requirements, shall be incorporated into the federally enforceable permit by no later than January 31, 2017. A continuous emission monitoring system (CEMS) shall be installed for this emissions unit by no later than January 31, 2017 to measure and record the daily sulfur dioxide emissions.



- c. This emissions unit shall be subject to the applicable requirements specified in 40 CFR Part 63, Subpart DDDDD when the regulations become effective on January 31, 2017.

c) Operational Restrictions

- (1) The quality of the oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in section b)(1)e. above.
- (2) This emissions unit shall not be taken out of service at the same time as both emissions units B003 (Boiler No. 8) and B013 (Wood Waste Boiler), except during emergency outages. Emissions unit B013 shall serve as the primary incineration point for high-volume low concentration NCG. Either emissions unit B002 or B003 shall serve as a backup control device for high-volume low concentration NCG combustion. If emissions unit B002 is permanently shut down, emissions unit B003 shall serve as the backup control device for high-volume low concentration NCG combustion and shall not be taken out of service at the same time as emissions unit B013, except during emergency outages.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall operate and maintain equipment to continuously monitor and record the opacity of the visible particulate emissions of the combined emissions from emissions units B002 and B003. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The continuous monitoring system consists of all the equipment used to acquire data and includes the data recording/processing hardware and software.

The permittee shall maintain a letter of certification from the Ohio EPA, Central Office documenting that the continuous opacity monitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Ohio EPA, Southeast District Office upon request.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitudes of manual calibration adjustments.

- (2) The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The quality assurance/quality control plan must be kept on site and available for inspection during regular office hours.
- (3) To obtain an exemption pursuant to OAC rule 3745-17-07(A)(3)(a)(i) or (A)(3)(b)(i), the permittee shall operate and maintain a temperature monitor and recorder that measures

and records the temperature of the boiler exhaust gases entering the ESP during (a) all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b) all periods of shut down until the inlet temperature of the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i). An electronic or hardcopy record of the temperatures during periods of start-up and shut down shall be maintained.

The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the boiler exhaust gases in units of degrees Fahrenheit.

- (4) The permittee shall maintain monthly records of the total quantity of coal burned, and the results of the analyses for ash content, sulfur content, heat content, and the average sulfur dioxide emission rate (in lbs/million Btu). The coal collection and sampling procedures and analyses for ash content, sulfur content, and heat content shall be performed in accordance with the following:

The permittee shall collect monthly composite samples of the coal burned in this emissions unit. A sufficient number of individual samples shall be collected so that each composite sample is representative of the average quality of coal burned in this emissions unit during each calendar month. The coal sampling shall be performed in accordance with the most recent version of ASTM method D2234, Collection of a Gross Sample of Coal.

Each monthly composite sample of coal shall be analyzed for ash content (in percent), sulfur content (in percent), and heat content (in Btu/pound). The analytical methods for ash content, sulfur content, and heat content shall be the most recent version of: ASTM method D3174, Ash in the Analysis of Coal and Coke; ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D5865, Gross Calorific Value of Coal and Coke, respectively. Alternative, equivalent methods may be used upon written approval from the Ohio EPA, Southeast District Office.

The requirements to analyze the sulfur content of the composite coal sample and to calculate the pounds per million Btu sulfur dioxide emission rate pursuant to this term and condition shall terminate on January 31, 2017 because the sulfur dioxide continuous monitoring system required under section d)(6) and the monitoring and record keeping provisions for the pounds per million Btu and pounds per calendar day emission limitations under section d)(8) become effective on that date.

- (5) The permittee shall comply with the requirements of one of the following alternatives pertaining to the use of number 2 fuel oil:

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil

supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/million Btu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/million Btu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).

c. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

The requirements to analyze the sulfur content of the number 2 fuel oil and to calculate the pounds per million Btu sulfur dioxide emission rate pursuant to this term and condition shall terminate on January 31, 2017 because the sulfur dioxide continuous monitoring system required under section d)(6) and the monitoring and record keeping provisions for the pounds per million Btu and pounds per calendar day emission limitations under section d)(8) become effective on that date.

(6) By not later than January 31, 2017, the permittee shall install, operate, and maintain equipment to continuously monitor and record sulfur dioxide and exhaust gas flow data for this emissions unit in units of the applicable standards (pounds per million Btu and pounds per calendar day). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60, Appendix B, Performance Specification 6, and be operated in accordance with 40 CFR Part 60.13 unless otherwise specified in d)(7) below.

The permittee shall maintain records of all data obtained by the continuous sulfur dioxide and exhaust gas flow monitoring system including, but not limited to, minute-by-minute concentration data for sulfur dioxide; minute-by-minute flow data in ACFM; sulfur dioxide data in pounds per day; the results of all daily, weekly, and quarterly calibration checks; and the magnitude of any calibration adjustments.

Each continuous emissions monitoring system (CEMS) consists of all the equipment used to acquire and record data and includes any sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The data recorded by the CEMS shall be used to determine compliance with the applicable emission limitations on an ongoing basis.

- (7) By not later than April 31, 2016, the permittee shall develop a written quality assurance/quality control plan for the continuous sulfur dioxide and exhaust gas flow monitoring system designed to meet all requirements as listed in 40 CFR Part 60, Appendix F and ensure continuous valid and representative readings of sulfur dioxide and flow. The plan shall describe in detail, complete, step-by-step procedures and operations for each of the following activities:
- a. calibration of CEMS;
 - b. calibration drift determination and adjustment of CEMS;
 - c. preventive maintenance of CEMS (including spare parts inventory);
 - d. data recording, calculations, and reporting;
 - e. accuracy audit procedures including sampling and analysis methods; and
 - f. program of corrective action for malfunctioning CEMS.

The permittee shall be required to complete a CEMS certification relative accuracy test audit (RATA), in accordance with the procedures specified in 40 CFR Part 60, Appendix F, by not later than January 31, 2017. From the date of CEMS certification forward, the permittee may forego annual RATA requirements as listed in 40 CFR Part 60, Appendix F, by completing a quarterly cylinder gas or relative accuracy audit, in accordance with 40 CFR Part 60, Appendix F, for each quarter of the year. Should any CEMS not pass a cylinder gas or relative accuracy audit on the first attempt for two consecutive quarters (even though a recalibration or repair allows the second attempted cylinder gas or relative accuracy audit to pass), the permittee shall complete a RATA within 60 days of the second quarter's failed cylinder gas or relative accuracy audit. The permittee shall also complete a RATA for the CEMS within six months prior to the expiration of this permit. RATA testing may also be required if the CEMS as listed on the CEMS certification letter from the Ohio EPA, Central Office, or any CEMS associated equipment, is changed or modified.

Beginning on January 31, 2017, the permittee shall perform daily zero/span calibration drift checks on each sulfur dioxide and flow CEMS for 60 consecutive operating days in accordance with the requirements specified in 40 CFR Part 60, Appendix F, section 4. If, on the first attempt, the results of each daily zero/span calibration drift check are less than the criteria for excessive calibration drift specified in 40 CFR Part 60, Appendix F, section 4.3 (as determined by the Ohio EPA, Southeast District Office), the permittee shall begin performing zero/span calibration drift checks on a weekly basis. If any CEMS should fail a weekly zero/span calibration drift check for two consecutive weeks

(based on the criteria of being two times over the limit as stated in Appendix F, section 4.3), the permittee shall perform daily zero/span calibration drift checks until such time as 60 consecutive daily zero/span calibration drift checks have been successfully completed within the criteria specified in Appendix F, section 4.3.

The quality assurance/quality control plan and a logbook dedicated to the sulfur dioxide and flow CEMS must be kept on site and available for inspection during regular office hours.

- (8) By not later than January 31, 2017, the permittee shall maintain daily records of the following information:
- a. the total sulfur dioxide emissions from this emissions unit based upon the data collected in section d)(6), in pounds per million Btu and pounds per calendar day;
 - b. the total sulfur dioxide emissions from this emissions unit and emissions unit B003, combined, based upon the data collected in section d)(6) for each unit, in pounds per calendar day; and
 - c. the identification of any days (excluding any days within the “control period” specified in OAC Chapter 3745-14) when this emissions unit was in service and the unit’s low-NO_x concentric firing system and vane close-coupled over fire air compartment were not operating.
- (9) The permittee shall maintain records for each day when emissions units B002, B003, and B013 were all off line and the venting of high-volume low concentration NCG was uncontrolled. If emissions unit B002 is permanently shut down after January 31, 2017, the permittee shall maintain records for each day when emissions units B003 and B013 were off line and the venting of high-volume low concentration NCG was uncontrolled.

e) Reporting Requirements

- (1) The permittee shall submit reports (hardcopy or electronic format) within one month following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting all instances of opacity values in excess of the limitation specified in section b)(1)b. of these terms and conditions, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitations.

The reports shall also identify any excursions of the start-up and shut down provisions specified in OAC rule 3745-17-07(A)(3) and document any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year, and each report shall address the data obtained during the previous calendar quarter.

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify whenever a monthly composite sample collected pursuant to section d)(4) above indicates a deviation from the allowable sulfur dioxide emission rate. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.

The requirements to submit quarterly deviation (excursion) reports pursuant to this term and condition shall terminate on January 31, 2017 because the sulfur dioxide continuous monitoring system required under section d)(6) and the monitoring and record keeping provisions for the pounds per million Btu and pounds per calendar day emission limitations under section d)(8) become effective on that date.

- (3) The permittee shall notify the Ohio EPA, Southeast District Office in writing of any record that shows a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates from section d)(5) above when firing number 2 fuel oil. The notification shall include a copy of such record and shall be sent to the Ohio EPA, Southeast District Office. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.

The requirements to submit quarterly deviation (excursion) reports pursuant to this term and condition shall terminate on January 31, 2017 because the sulfur dioxide continuous monitoring system required under section d)(6) and the monitoring and record keeping provisions for the pounds per million Btu and pounds per calendar day emission limitations under section d)(8) become effective on that date.

- (4) The permittee shall submit quarterly deviation (excursion) reports that identify any period of time when emissions units B002, B003, and B013 were all off line and the venting of high-volume low concentration NCG was uncontrolled. If emissions unit B002 is permanently shut down after January 31, 2017, the permittee shall submit deviation (excursion) reports that identify any period of time when emissions units B003 and B013 were off line and the venting of high-volume low concentration NCG was uncontrolled. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.
- (5) Beginning in calendar year 2017, the permittee shall submit reports within one month following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of sulfur dioxide values in excess of the applicable limitations (pounds per million Btu and pounds per calendar day) specified in this permit.



The reports shall document any continuous sulfur dioxide and exhaust gas flow monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

- (6) Beginning in calendar year 2017, the permittee shall submit quarterly deviation (excursion) reports that identify any days (excluding any days within the "control period" specified in OAC Chapter 3745-14) when this emissions unit was in service and the unit's low-NO_x concentric firing system and vane close-coupled over fire air compartment were not operating.

These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.

f) **Testing Requirements**

- (1) 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:

Visible particulate emissions from the exhaust stack serving emissions units B002 and B003 shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Methods:

If required, compliance with this emission limitation shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

Ongoing compliance with this emission limitation may be demonstrated based upon the records required pursuant to section d)(1).



b. Emission Limitation:

Particulate emissions shall not exceed 0.10 pound per million Btu of actual heat input, when firing coal.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be demonstrated through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9).

c. Emission Limitation:

Particulate emissions shall not exceed 0.020 pound per million Btu of actual heat input, when firing only number 2 fuel oil.

Applicable Compliance Method:

Compliance with this emission limitation may be determined by multiplying an emission factor of 2.0 pounds of particulates per 1000 gallons of fuel oil fired by the emissions unit's maximum hourly fuel oil firing capacity (1584 gallons/hr), dividing by the emissions unit's rated heat input capacity (422 million Btu/hr), and dividing by 1000. This emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.3, Table 1.3-1 (5/10).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9).

d. Emission Limitation:

Sulfur dioxide emissions shall not exceed 9.9 pounds per million Btu actual heat input.

Applicable Compliance Methods:

When firing fuel oil, compliance with this sulfur dioxide emission limitation may be demonstrated based upon the records required pursuant to section d)(5).

When firing coal, compliance with this sulfur dioxide emission limitation may be demonstrated based upon the records required pursuant to section d)(4).

On and after installation and operation of the control technology required under section b)(2)b. above is complete, compliance with this sulfur dioxide emission limitations shall be demonstrated based upon the records required pursuant to sections d)(6) and d)(8).



Also, if required, the permittee shall demonstrate compliance with the allowable sulfur dioxide emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 or 6A.

e. Emission Limitation:

By not later than January 31, 2017, sulfur dioxide emissions from emissions units B002 and B003, combined, shall not exceed 24,930 pounds per calendar day.

Applicable Compliance Method:

Compliance with this sulfur dioxide emission limitation shall be demonstrated based upon the records required pursuant to sections d)(6) and d)(8).

Also, if required, the permittee shall demonstrate compliance with the allowable sulfur dioxide emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 or 6A.

g) Miscellaneous Requirements

- (1) None.



2. B002, No.7 Boiler (post natural gas modification)

The information detailed below takes effect following resumption of regular operations of No. 7 Boiler after the changes detailed in the May 2015 application entitled “Boiler MACT/BART Project Permit-to-Install Application and Environmentally Beneficial Exemption Request” and approved by OEPA in the September 23, 2015 Environmentally Beneficial Determination letter. The changes include, but are not limited to, the conversion of the boiler from coal/ No. 2 fuel oil firing to natural gas/ No. 2 fuel oil firing (This permit serves as an administrative modification to P0118907 issued 7/20/2015).

Operations, Property and/or Equipment Description:

Emissions unit B002 (Boiler No. 7) is a natural gas-fired boiler (Combustion Engineering model VU-40S) having a maximum heat input capacity of 422 million Btu per hour, capable of firing number 2 fuel oil as backup fuel, and is a backup control device for high volume low concentration non-condensable gases (HVLC NCG) generated by other facility emissions units. The unit is equipped with eight (8) natural gas burners (manufactured by Zeeco) and four (4) oil burners (manufactured by Zeeco).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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)	See section c)(2) below.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from the exhaust stack serving emissions units B002 and B003 shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-10(B)(1)	Particulate emissions shall not exceed 0.020 pound per million Btu of actual heat input, when firing only natural gas or number 2 fuel oil.
d.	OAC rule 3745-18-77(B)(1)	Sulfur dioxide emissions shall not exceed 9.9 pounds per million Btu actual heat input. After the compliance date listed under



Draft Permit-to-Install

P. H. Glatfelter Company - Chillicothe Facility

Permit Number: P0118906

Facility ID: 0671010028

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		b)(2)b. below, this emission limitation will be less stringent than the emission limitation established pursuant to 40 CFR Part 51.308(e). See b)(1)f. below.
e.	OAC Chapters 3745-14 and 3745-109	See section b)(2)a. below.
f.	40 CFR Part 51, Subpart P (51.308(e)) [Federally enforceable limitation to comply with the BART requirements of U.S. EPA's Regional Haze Regulations.]	After the compliance date listed under b)(2)b. below, sulfur dioxide emissions from emissions units B002 and B003, combined, shall not exceed 24,930 pounds per calendar day.
g.	40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-63.7575) [In accordance with 40 CFR 63.7490(a)(1), 63.7499 and 63.7575, this emissions unit is an existing industrial boiler unit designed to burn gas 1 fuels.]	See b)(2)c. below.
h.	40 CFR Part 63, Subpart A	See 40 CFR Part 63.7565 and Table 10 to Subpart DDDDD for the Applicability of General Provisions to this Subpart.
i.	OAC rule 3745-31-05(D) (Synthetic minor to avoid DRR for 2010 1-hour SO ₂ primary NAAQS)	See facility wide terms and conditions B.9.
j.	40 CFR Part 63, Subpart S (63.440-63.459) [In accordance with 63.440, this facility is an existing kraft papermill plant site that is a major source as defined in 63.2 of subpart A.]	This emissions unit is used maintain compliance with the HAP control requirements outlined in 40 CFR 63.443. See c)(3), d)(4), and e)(4) below.

(2) Additional Terms and Conditions

- a. Refer to Part B. – Facility-Wide Terms and Conditions of the permit for the requirements of OAC Chapter 3745-14 "NO_x Budget Trading Program in Ohio" and OAC Chapter 3745-109 "Clean Air Interstate Rule."



- b. Emissions units B002 and B003 (Boilers No. 7 and No. 8, respectively) are subject to the Best Available Retrofit Technology (BART) requirements of the U.S. EPA’s Regional Haze Regulations (40 CFR Part 51, Subpart P). The permittee shall operate and maintain control measures constituting an “alternative to BART” that will achieve greater reasonable progress than would be achieved through installation and operation of BART, as allowed under 40 CFR Part 51.308(e)(2).

Emissions unit B002 (Boiler No. 7) is equipped with an Alstom Power low nitrogen oxides (low-NO_x) concentric firing system and a vane close-coupled over fire air compartment, which, based upon Ohio EPA’s analysis, satisfy the BART nitrogen oxides technology requirement.

The permittee shall achieve the required nitrogen oxides emission reduction by not later than January 31, 2017 by routinely employing the Alstom Power low-NO_x concentric firing system and vane close-coupled over fire air compartment, on a year-round basis, rather than limiting low-NO_x operation to the control period (May 1 through September 30) specified in OAC Chapter 3745-14.

The permittee shall achieve the required sulfur dioxide emission reduction, on a year-round basis, by not later than January 31, 2017. As part of this “alternative to BART,” the permittee shall install, operate, and maintain control technology sufficient to meet the emissions limitation in section b)(1)g. This may include an add-on control device, use of an alternative fuel, use of low sulfur fuel, permanent shut down of emissions unit B002, or a combination of these measures. By no later than January 31, 2017, the permittee shall submit to Ohio EPA an application for modification of this federally enforceable permit. The application shall include a compliance plan outlining, at a minimum, the specific, selected control technologies and methods of compliance; and these requirements, along with any appropriate monitoring, record keeping, and reporting requirements, shall be incorporated into the federally enforceable permit by no later than January 31, 2017.

- c. This emissions unit shall be subject to the applicable requirements specified in 40 CFR Part 63, Subpart DDDDD when the regulations become effective on January 31, 2017.

c) Operational Restrictions

- (1) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart DDDDD, including the following sections:

63.7500(a)(1) and 63.7515(d)	Meet work practice standards in Table 3.
63.7500(a)(3)	Operate and maintain affected source in a manner consistent with safety and good air pollution control practices for minimizing

	emissions.
63.7500(b)	EPA may approve use of alternative work practice standards.
63.7500(e)	Units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13, or operating limits in Table 4.
63.7505(a)	Must be in compliance with the emission limits, work practice standards, and operating limits in this subpart. These limits apply at all times except for the periods noted in 63.7500(f).
63.7510(e) and Table 3	Initial tune-up and energy assessment requirement.
63.7575	Definition of unit designed to burn gas 1 subcategory. Restriction on total hours and type of use of liquid fuel.

- (2) The quality of the oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in section b)(1)d. and f. above.
- (3) This emissions unit shall not be taken out of service at the same time as both emissions units B003 (Boiler No. 8) and B013 (Wood Waste Boiler), except during emergency outages. Emissions unit B013 shall serve as the primary incineration point for high-volume low concentration NCG. Either emissions unit B002 or B003 shall serve as a backup control device for high-volume low concentration NCG combustion. If emissions unit B002 is permanently shut down, emissions unit B003 shall serve as the backup control device for high-volume low concentration NCG combustion and shall not be taken out of service at the same time as emissions unit B013, except during emergency outages.
- (4) The permittee shall burn only natural gas and/or number two fuel oil in this emissions unit.



d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 63, Subpart DDDDD, including the following sections:

63.7540(a)(10)(vi)	Maintain on-site and submit, if requested by Administrator, annual report containing information in (a)(10)(vi)(A) through (C) of this section.
63.7555(a)	Maintain records in accordance with (a)(1) and (2) of this section.
63.7555(d)(10) and 63.7555(i)	Maintain records of the calendar date, time, occurrence and duration of each startup and shut down.
63.7555(d)(11) and 63.7555(j)	Maintain records of type and quantity of fuel used for each startup and shut down.
63.7555(h)	Maintain records of total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.

- (2) The permittee is exempt from visible PE limitations for stack emissions during startup and shut down periods pursuant to OAC rule 3745-17-07(A)(3)(a)(ii) and (A)(3)(b)(ii). The exemption applies for a period of not more than three hours from the moment of startup and for a shut down period of not more than three hours, provided that the director may incorporate a longer startup time period in the permit or variance for such source for which an applicant demonstrates to the satisfaction of the director that the longer time period is required.

- (3) The permittee shall comply with the requirements of one of the following alternatives pertaining to the use of number 2 fuel oil:

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil



supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/million Btu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/million Btu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

- (4) The permittee shall maintain records for each day when emissions units B002, B003, and B013 were all off line and the venting of high-volume low concentration NCG was uncontrolled. If emissions unit B002 is permanently shut down after January 31, 2017, the permittee shall maintain records for each day when emissions units B003 and B013 were off line and the venting of high-volume low concentration NCG was uncontrolled.
- (5) For each day during which the permittee burns a fuel other than natural gas and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 63, Subpart DDDDD, including the following sections:

63.7495(d)	Submit notification requirements
63.7530(d)	Submit notification of compliance Status report signed statement

	indicating a tune-up of the unit was conducted.
63.7530(e)	Submit notification of compliance Status report signed statement indicating the energy assessment was completed according to Table 3 to this subpart and is an accurate depiction of facility at the time the assessment was conducted.
63.7530(f)	Submit notification of compliance Status containing the results of the initial compliance demonstration according to the requirements in 63.7545(e).
63.7545(a)	Submit to Administrator all of the notifications in 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to the emissions unit by the dates specified.
63.7545(b)	If startup affected source before January 31, 2013, submit initial notification no later than 120 days after January 31, 2013.
63.7545(e)	Submit notice of compliance status which contain all the information specified in paragraphs (e)(1) through (e)(8), as applicable.
63.7545(f)	Submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 63.7575 and must include information specified in (f)(1) through (5) of this section.
63.7550(a)	Submit each report in Table 9 to this subpart that applies.
63.7550(b)	Unless the EPA Administrator has approved a different schedule for

	<p>submission of reports under 63.10(a), facility must submit each report, according to paragraph (h) of this section, by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (4) of this section. For units that are subject only to annual, biennial, or 5 year tune- up requirements and not subject to emissions limitations or operating restrictions, may submit only compliance report, as applicable, as specified in paragraph (b)(1) through (4) of this section, instead of a semi-annual compliance report.</p>
63.7550(c)(1)	<p>Submit a compliance report with the information in (c)(5)(i) through (iii), (xiv), and (xvii) of this section.</p>
63.7550(h)(3)	<p>Submit all reports required by Table 9 of this subpart electronically through CEDRI. If no form available, facility must submit report to Administrator at appropriate address listed in 63.13. At discretion of Administrator, the facility must also submit these reports to the Administrator in the format specified by the Administrator.</p>

- (3) The permittee shall notify the Ohio EPA, Southeast District Office in writing of any record that shows a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates from section d)(3) above when firing number 2 fuel oil. The notification shall include a copy of such record and shall be sent to the Ohio EPA, Southeast District Office. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.
- (4) The permittee shall submit quarterly deviation (excursion) reports that identify any period of time when emissions units B002, B003, and B013 were all off line and the venting of high-volume low concentration NCG was uncontrolled. If emissions unit B002 is permanently shut down after January 31, 2017, the permittee shall submit deviation (excursion) reports that identify any period of time when emissions units B003 and B013 were off line and the venting of high-volume low concentration NCG was uncontrolled.

These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.

- (5) Beginning in calendar year 2017, the permittee shall submit quarterly deviation (excursion) reports that identify any days (excluding any days within the “control period” specified in OAC Chapter 3745-14) when this emissions unit was in service and the unit’s low-NO_x concentric firing system and vane close-coupled over fire air compartment were not operating.

These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.

- (6) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

f) Testing Requirements

- (1) The permittee shall comply with the applicable compliance requirements required under 40 CFR Part 63, Subpart DDDDD, including the following sections:

63.7540(a)	Demonstrate compliance with work practice standards in Table 3 to this subpart.
63.7540(a)(12)-(13)	<p>Conduct tune-up of boiler every 5 years as specified in (a)(10)(i) through (vi) of this section to demonstrate continuous compliance. The facility may delay the burner inspection specified in (a)(10)(i) of this section until the next scheduled or unscheduled unit shut down, but must inspect each burner at least once every 72 months.</p> <p>If unit is not operating on required date for tune-up, the tune-up must be conducted within 30 calendar days of startup.</p>

- (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:

Visible particulate emissions from the exhaust stack serving emissions units B002 and B003 shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Methods:

If required, visible particulate emissions shall be determined according to USEPA Method 9.

b. Emission Limitation:

Particulate emissions shall not exceed 0.020 pound per million Btu of actual heat input, when firing only natural gas or number 2 fuel oil.

Applicable Compliance Method:

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office, and the procedures specified in OAC rule 3745-17-03(B)(9).

c. Emission Limitation:

Sulfur dioxide emissions shall not exceed 9.9 pounds per million Btu actual heat input.

Applicable Compliance Methods:

When firing fuel oil, compliance with this sulfur dioxide emission limitation may be demonstrated based upon the records required pursuant to section d)(3).

If required, sulfur dioxide emissions shall be determined according to test Methods 1 - 4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

d. Emission Limitation:

By no later than January 31, 2017, sulfur dioxide emissions from emissions units B002 and B003, combined, shall not exceed 24,930 pounds per calendar day.

Applicable Compliance Method:

When firing fuel oil, compliance with this sulfur dioxide emission limitation may be demonstrated based upon the records required pursuant to section d)(3).



Draft Permit-to-Install

P. H. Glatfelter Company - Chillicothe Facility

Permit Number: P0118906

Facility ID: 0671010028

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When firing natural gas, compliance with this emission limitation may be determined by dividing an emission factor of 5.7 pounds of particulates per 1,000,000 standard cubic feet (MMscf) of natural gas fired by the high heating value of natural gas (1,050 MMBtu/MMscf). This emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, sulfur dioxide emissions shall be determined according to test Methods 1 - 4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

g) Miscellaneous Requirements

- (1) None.



3. B003, No. 8 Boiler (prior to natural gas modification)

The information detailed below remains in effect until the resumption of regular operations of No. 8 Boiler after the changes detailed in the May 2015 application entitled “Boiler MACT/BART Project Permit-to-Install Application and Environmentally Beneficial Exemption Request” and approved by OEPA in the September 23, 2015 Environmentally Beneficial Determination letter. The changes include, but are not limited to, the conversion of the boiler from coal/No. 2 fuel oil firing to natural gas/ No. 2 fuel oil firing. (This permit serves as an administrative modification to P0118907 issued 7/20/2015).

Operations, Property and/or Equipment Description:

Emissions unit B003 (Boiler No. 8) is a wall-fired, pulverized coal-fired boiler (Alstom/Combustion Engineering) having a maximum heat input capacity of 505 million Btu per hour, capable of firing number 2 fuel oil as backup fuel, and is a backup control device for non-condensable gases (NCG) generated by other facility emissions units. The emissions unit is controlled with a cyclone/multi-clone, four low-NO_x staged-combustion burners (Advanced Combustion Technology), and an electrostatic precipitator (Environmental Elements Dry Precipitator)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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)	See section c)(1) below.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from the exhaust stack serving emissions units B002 and B003 shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-10(C)(1)	Particulate emissions shall not exceed 0.10 pound per million Btu of actual heat input, when firing coal. The particulate emission limitation specified in 40 CFR Part 63, Subpart DDDDD for this emissions unit, when firing coal, is currently more stringent than this particulate emission limitation. After the specified compliance date for this



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		emissions unit, this particulate emission limitation will be less stringent than the particulate emission limitation established pursuant to Subpart DDDDD.
d.	OAC rule 3745-17-10(B)(1)	<p>Particulate emissions shall not exceed 0.020 pound per million Btu of actual heat input, when firing only number 2 fuel oil.</p> <p>The particulate emission limitation specified in 40 CFR Part 63, Subpart DDDDD for this emissions unit, when firing only number 2 fuel oil, is currently more stringent than this particulate emission limitation. After the specified compliance date for this emissions unit, this particulate emission limitation will be less stringent than the particulate emission limitation established pursuant to Subpart DDDDD.</p>
e.	OAC rule 3745-18-77(B)(1)	Sulfur dioxide emissions shall not exceed 9.9 pounds per million Btu actual heat input. After the compliance date listed under b)(2)b. below, this emission limitation will be less stringent than the emission limitation established pursuant to 40 CFR Part 51.308(e) (see b)(1)g. below).
f.	OAC Chapters 3745-14 and 3745-109	See section b)(2)a. below.
g.	40 CFR Part 51.308(e) Federally enforceable limitation to comply with the BART requirements of U.S. EPA's Regional Haze Regulations.	After the compliance date listed under b)(2)b. below, sulfur dioxide emissions from emissions units B002 and B003, combined, shall not exceed 24,930 pounds per calendar day.
h.	40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-63.7575) [In accordance with 40 CFR 63.7490(a)(1), 63.7499 and 63.7575, this emissions unit is an existing industrial boiler unit designed to burn coal/solid fossil fuel.]	<p>See section b)(2)c. below.</p> <p>Also see 40 CFR Part 63.7500 and Table 2 to Subpart DDDDD.</p>
i.	40 CFR Part 63, Subpart A	See 40 CFR Part 63.7565 and Table 10 to Subpart DDDDD for the Applicability of General Provisions to this Subpart.
j.	40 CFR Part 63, Subpart S	This emissions unit is used to maintain



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	(63.440-63.459) [In accordance with 63.440, this facility is an existing kraft papermill plant site that is a major source as defined in 63.2 of subpart A.]	compliance with the HAP control requirement outlined in 40 CFR 63.443 See c)(2), d)(9), and e)(4) below.

(2) Additional Terms and Conditions

- a. Refer to Part B. – Facility-Wide Terms and Conditions of the permit for the requirements of OAC Chapter 3745-14 "NO_x Budget Trading Program in Ohio" and OAC Chapter 3745-109 "Clean Air Interstate Rule."
- b. Emissions units B002 and B003 (Boilers No. 7 and No. 8, respectively) are subject to the Best Available Retrofit Technology (BART) requirements of the U.S. EPA's Regional Haze Regulations (40 CFR Part 51, Subpart P). The permittee shall operate and maintain control measures constituting an "alternative to BART" that will achieve greater reasonable progress than would be achieved through installation and operation of BART, as allowed under 40 CFR Part 51.308(e)(2).

In addition to using a cyclone/multi-clone and an ESP to control the particulate emissions, emissions unit B003 (Boiler No. 8) is equipped with four Advanced Combustion Technology low-NO_x staged-combustion burners, which, based upon Ohio EPA's analysis, satisfy the BART nitrogen oxides technology requirement.

The permittee shall achieve the required nitrogen oxides emission reduction by not later than January 31, 2017 by routinely employing the four Advanced Combustion Technology staged-combustion burners in their lowest-NO_x mode on a year-round basis, rather than limiting low-NO_x operation to the control period (May 1 through September 30) specified in OAC Chapter 3745-14.

The permittee shall achieve the required sulfur dioxide emission reduction, on a year-round basis, by not later than January 31, 2017. As part of this "alternative to BART," the permittee shall install, operate, and maintain control technology sufficient to meet the emissions limitation in section b)(1)g. This may include an add-on control device, use of an alternative fuel, use of low sulfur fuel, permanent shut down of emissions unit B002, or a combination of these measures. By no later than January 31, 2017, the permittee shall submit to Ohio EPA an application for modification of this federally enforceable permit. The application shall include a compliance plan outlining, at a minimum, the specific, selected control technologies and methods of compliance; and these requirements, along with any appropriate monitoring, record keeping, and reporting requirements, shall be incorporated into the federally enforceable permit by no later than January 31, 2017. A continuous emission monitoring

system (CEMS) shall be installed for this emissions unit by no later than January 31, 2017 to measure and record the daily sulfur dioxide emissions.

- c. This emissions unit shall be subject to the applicable requirements specified in 40 CFR Part 63, Subpart DDDDD when the regulations become effective on January 31, 2017.

c) Operational Restrictions

- (1) The quality of the oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in section b)(1)e. above.
- (2) This emissions unit shall not be taken out of service at the same time as both emissions units B003 (Boiler No. 8) and B013 (Wood Waste Boiler), except during emergency outages. Emissions unit B013 shall serve as the primary incineration point for high-volume low concentration NCG. Either emissions unit B002 or B003 shall serve as a backup control device for high-volume low concentration NCG combustion. If emissions unit B002 is permanently shut down, emissions unit B003 shall serve as the backup control device for high-volume low concentration NCG combustion and shall not be taken out of service at the same time as emissions unit B013, except during emergency outages.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall operate and maintain equipment to continuously monitor and record the opacity of the visible particulate emissions of the combined emissions from emissions units B002 and B003. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The continuous monitoring system consists of all the equipment used to acquire data and includes the data recording/processing hardware and software.

The permittee shall maintain a letter of certification from the Ohio EPA, Central Office documenting that the continuous opacity monitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Ohio EPA, Southeast District Office upon request.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitudes of manual calibration adjustments.

- (2) The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The quality assurance/quality control plan must be kept on site and available for inspection during regular office hours.

- (3) To obtain an exemption pursuant to OAC rule 3745-17-07(A)(3)(a)(i) or (A)(3)(b)(i), the permittee shall operate and maintain a temperature monitor and recorder that measures and records the temperature of the boiler exhaust gases entering the ESP during (a) all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b) all periods of shut down until the inlet temperature of the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i). An electronic or hardcopy record of the temperatures during periods of start-up and shut down shall be maintained.

The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the boiler exhaust gases in units of degrees Fahrenheit.

- (4) The permittee shall maintain monthly records of the total quantity of coal burned, and the results of the analyses for ash content, sulfur content, heat content, and the average sulfur dioxide emission rate (in lbs/million Btu). The coal collection and sampling procedures and analyses for ash content, sulfur content, and heat content shall be performed in accordance with the following:

The permittee shall collect monthly composite samples of the coal burned in this emissions unit. A sufficient number of individual samples shall be collected so that each composite sample is representative of the average quality of coal burned in this emissions unit during each calendar month. The coal sampling shall be performed in accordance with the most recent version of ASTM method D2234, Collection of a Gross Sample of Coal.

Each monthly composite sample of coal shall be analyzed for ash content (in percent), sulfur content (in percent), and heat content (in Btu/pound). The analytical methods for ash content, sulfur content, and heat content shall be the most recent version of: ASTM method D3174, Ash in the Analysis of Coal and Coke; ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D5865, Gross Calorific Value of Coal and Coke, respectively. Alternative, equivalent methods may be used upon written approval from the Ohio EPA, Southeast District Office.

The requirements to analyze the sulfur content of the composite coal sample and to calculate the pounds per million Btu sulfur dioxide emission rate pursuant to this term and condition shall terminate on January 31, 2017 because the sulfur dioxide continuous monitoring system required under section d)(6) and the monitoring and record keeping provisions for the pounds per million Btu and pounds per calendar day emission limitations under section d)(8) become effective on that date.

- (5) The permittee shall comply with the requirements of one of the following alternatives pertaining to the use of number 2 fuel oil:
- a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/million Btu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/million Btu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).

c. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

The requirements to analyze the sulfur content of the number 2 fuel oil and to calculate the pounds per million Btu sulfur dioxide emission rate pursuant to this term and condition shall terminate on January 31, 2017 because the sulfur dioxide continuous monitoring system required under section d)(6) and the monitoring and record keeping provisions for the pounds per million Btu and pounds per calendar day emission limitations under section d)(8) become effective on that date.

(6) By not later than January 31, 2017, the permittee shall install, operate, and maintain equipment to continuously monitor and record sulfur dioxide and exhaust gas flow data for this emissions unit in units of the applicable standards (pounds per million Btu and pounds per day). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60, Appendix B, Performance Specification 6, and be operated in accordance with 40 CFR Part 60.13 unless otherwise specified in d)(7) below.

The permittee shall maintain records of all data obtained by the continuous sulfur dioxide and exhaust gas flow monitoring system including, but not limited to, minute-by-minute concentration data for sulfur dioxide; minute-by-minute flow data in ACFM; sulfur dioxide

data in pounds per day; the results of all daily, weekly, and quarterly calibration checks; and the magnitude of any calibration adjustments.

Each continuous emissions monitoring system (CEMS) consists of all the equipment used to acquire and record data and includes any sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The data recorded by the CEMS shall be used to determine compliance with the applicable emission limitations on an ongoing basis.

- (7) By not later than April 31, 2016, the permittee shall develop a written quality assurance/quality control plan for the continuous sulfur dioxide and exhaust gas flow monitoring system designed to meet all requirements as listed in 40 CFR Part 60, Appendix F and ensure continuous valid and representative readings of sulfur dioxide and flow. The plan shall describe in detail, complete, step-by-step procedures and operations for each of the following activities:
- a. calibration of CEMS;
 - b. calibration drift determination and adjustment of CEMS;
 - c. preventive maintenance of CEMS (including spare parts inventory);
 - d. data recording, calculations, and reporting;
 - e. accuracy audit procedures including sampling and analysis methods; and
 - f. program of corrective action for malfunctioning CEMS.

The permittee shall be required to complete a CEMS certification relative accuracy test audit (RATA), in accordance with the procedures specified in 40 CFR Part 60, Appendix F, by not later than January 31, 2017. From the date of CEMS certification forward, the permittee may forego annual RATA requirements as listed in 40 CFR Part 60, Appendix F, by completing a quarterly cylinder gas or relative accuracy audit, in accordance with 40 CFR Part 60, Appendix F, for each quarter of the year. Should any CEMS not pass a cylinder gas or relative accuracy audit on the first attempt for two consecutive quarters (even though a recalibration or repair allows the second attempted cylinder gas or relative accuracy audit to pass), the permittee shall complete a RATA within 60 days of the second quarter's failed cylinder gas or relative accuracy audit. The permittee shall also complete a RATA for the CEMS within six months prior to the expiration of this permit. RATA testing may also be required if the CEMS as listed on the CEMS certification letter from the Ohio EPA, Central Office, or any CEMS associated equipment, is changed or modified.

Beginning on January 31, 2017, the permittee shall perform daily zero/span calibration drift checks on each sulfur dioxide and flow CEMS for 60 consecutive operating days in accordance with the requirements specified in 40 CFR Part 60, Appendix F, section 4. If, on the first attempt, the results of each daily zero/span calibration drift check are less than the criteria for excessive calibration drift specified in 40 CFR Part 60, Appendix F,

section 4.3 (as determined by the Ohio EPA, Southeast District Office), the permittee shall begin performing zero/span calibration drift checks on a weekly basis. If any CEMS should fail a weekly zero/span calibration drift check for two consecutive weeks (based on the criteria of being two times over the limit as stated in Appendix F, section 4.3), the permittee shall perform daily zero/span calibration drift checks until such time as 60 consecutive daily zero/span calibration drift checks have been successfully completed within the criteria specified in Appendix F, section 4.3.

The quality assurance/quality control plan and a logbook dedicated to the sulfur dioxide and flow CEMS must be kept on site and available for inspection during regular office hours.

- (8) By not later than January 31, 2017, the permittee shall maintain daily records of the following information:
- a. the total sulfur dioxide emissions from this emissions unit based upon the data collected in section d)(6), in pounds per million Btu and pounds per calendar day;
 - b. the total sulfur dioxide emissions from this emissions unit and emissions unit B002, combined, based upon the data collected in section d)(6) for each unit, in pounds per calendar day; and
 - c. the identification of any days (excluding any days within the “control period” specified in OAC Chapter 3745-14) when this emissions unit was in service and the unit’s low-NO_x staged-combustion burners were not operating at their lowest-NO_x mode.
- (9) The permittee shall maintain records for each day when emissions units B002, B003, and B013 were all off line and the venting of high-volume low concentration NCG was uncontrolled. If emissions unit B002 is permanently shut down after January 31, 2017, the permittee shall maintain records for each day when emissions units B003 and B013 were off line and the venting of high-volume low concentration NCG was uncontrolled.

e) Reporting Requirements

- (1) The permittee shall submit reports (hardcopy or electronic format) within one month following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting all instances of opacity values in excess of the limitation specified in section b)(1)b. of these terms and conditions, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitations.

The reports shall also identify any excursions of the start-up and shut down provisions specified in OAC rule 3745-17-07(A)(3) and document any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time

of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year, and each report shall address the data obtained during the previous calendar quarter.

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify whenever a monthly composite sample collected pursuant to section d)(4) above indicates a deviation from the allowable sulfur dioxide emission rate. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.

The requirements to submit quarterly deviation (excursion) reports pursuant to this term and condition shall terminate on January 31, 2017 because the sulfur dioxide continuous monitoring system required under section d)(6) and the monitoring and record keeping provisions for the pounds per million Btu and pounds per calendar day emission limitations under section d)(8) become effective on that date.

- (3) The permittee shall notify the Ohio EPA, Southeast District Office in writing of any record that shows a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates from section d)(5) above when firing number 2 fuel oil. The notification shall include a copy of such record and shall be sent to the Ohio EPA, Southeast District Office. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.

The requirements to submit quarterly deviation (excursion) reports pursuant to this term and condition shall terminate on January 31, 2017 because the sulfur dioxide continuous monitoring system required under section d)(6) and the monitoring and record keeping provisions for the pounds per million Btu and pounds per calendar day emission limitations under section d)(8) become effective on that date.

- (4) The permittee shall submit quarterly deviation (excursion) reports that identify any period of time when emissions units B002, B003, and B013 were all off line and the venting of high-volume low concentration NCG was uncontrolled. If emissions unit B002 is permanently shut down after January 31, 2017, the permittee shall submit deviation (excursion) reports that identify any period of time when emissions units B003 and B013 were off line and the venting of high-volume low concentration NCG was uncontrolled. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.
- (5) Beginning in calendar year 2017, the permittee shall submit reports within one month following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude,



reason (if known), and corrective actions taken (if any), of all instances of sulfur dioxide values in excess of the applicable limitations (pounds per million Btu and pounds per day) specified in this permit.

The reports shall document any continuous sulfur dioxide and exhaust gas flow monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

- (6) Beginning in calendar year 2017, the permittee shall submit quarterly deviation (excursion) reports that identify any days (excluding any days within the "control period" specified in OAC Chapter 3745-14) when this emissions unit was in service and the unit's low-NO_x staged-combustion burners were not operating at their lowest-NO_x mode.

These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.

f) **Testing Requirements**

- (1) 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:

Visible particulate emissions from the exhaust stack serving emissions units B002 and B003 shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

- Applicable Compliance Methods:

If required, compliance with this emission limitation shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).



Ongoing compliance with this emission limitation may be demonstrated based upon the records required pursuant to section d)(1).

b. Emission Limitation:

Particulate emissions shall not exceed 0.10 pound per million Btu of actual heat input, when firing coal.

Applicable Compliance Method:

If required, compliance with this emission limitation also shall be demonstrated through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9).

c. Emission Limitation:

Particulate emissions shall not exceed 0.020 pound per million Btu of actual heat input, when firing only number 2 fuel oil.

Applicable Compliance Method:

Compliance with this emission limitation may be determined by multiplying an emission factor of 2.0 pounds of particulates per 1000 gallons of fuel oil fired by the emissions unit's maximum hourly fuel oil firing capacity (3504 gallons/hr), dividing by the emissions unit's rated heat input capacity (505 million Btu/hr), and dividing by 1000. This emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.3, Table 1.3-1 (5/10).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9).

d. Emission Limitation:

Sulfur dioxide emissions shall not exceed 9.9 pounds per million Btu actual heat input.

Applicable Compliance Methods:

When firing fuel oil, compliance with this sulfur dioxide emission limitation may be demonstrated based upon the records required pursuant to section d)(5).

When firing coal, compliance with this sulfur dioxide emission limitation may be demonstrated based upon the records required pursuant to section d)(4).

On and after installation and operation of the control technology required under section b)(2)b. above is complete, compliance with this sulfur dioxide emission



limitation shall be demonstrated based upon the records required pursuant to sections d)(6) and d)(8).

Also, if required, the permittee shall demonstrate compliance with the allowable sulfur dioxide emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 or 6A.

e. Emission Limitation:

By not later than January 31, 2017, sulfur dioxide emissions from emissions units B002 and B003, combined, shall not exceed 24,930 pounds per calendar day.

Applicable Compliance Method:

Compliance with this sulfur dioxide emission limitation shall be demonstrated based upon the records required pursuant to sections d)(6) and d)(8).

Also, if required, the permittee shall demonstrate compliance with the allowable sulfur dioxide emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 or 6A.

g) Miscellaneous Requirements

- (1) None.

4. B003, No. 8 Boiler (post natural gas modification)

The information detailed below takes effect following resumption of regular operations of No. 8 Boiler after the changes detailed in the May 2015 application entitled “Boiler MACT/BART Project Permit-to-Install Application and Environmentally Beneficial Exemption Request” and approved by OEPA in the September 23, 2015 Environmentally Beneficial Determination letter. The changes include, but are not limited to, the conversion of the boiler from coal/ No. 2 fuel oil firing to natural gas/ No. 2 fuel oil firing.

Operations, Property and/or Equipment Description:

Emissions unit B003 (Boiler No. 8) is a natural gas-fired boiler (Alstom/Combustion Engineering) having a maximum heat input capacity of 555 million Btu per hour, capable of firing number 2 fuel oil as backup fuel, and is a backup control device for non-condensable gases (NCG) generated by other facility emissions units. The emissions unit is equipped with four (4) natural gas/oil burners (manufactured by Zeeco) and two (2) natural gas burners (manufactured by Zeeco). (Administrative modification to PTI # P0119807 issued 7/20/2015 to align compliance date for the BART requirements with the approved Boiler MACT compliance date of January 31, 2017).

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) 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)	See section c)(2) below.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from the exhaust stack serving emissions units B002 and B003 shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-10(B)(1)	Particulate emissions shall not exceed 0.020 pound per million Btu of actual heat input, when firing only natural gas or number 2 fuel oil.
d.	OAC rule 3745-18-77(B)(1)	Sulfur dioxide emissions shall not exceed 9.9 pounds per million Btu actual heat input.
		After the compliance date listed under



Draft Permit-to-Install

P. H. Glatfelter Company - Chillicothe Facility

Permit Number: P0118906

Facility ID: 0671010028

Effective Date: To be entered upon final issuance

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		b)(2)b. below, this emission limitation will be less stringent than the emission limitation established pursuant to 40 CFR Part 51.308(e) See b)(1)f. below.
e.	OAC Chapters 3745-14 and 3745-109	See section b)(2)a. below.
f.	40 CFR Part 51, Subpart P (51.308(e)) [Federally enforceable limitation to comply with the BART requirements of U.S. EPA's Regional Haze Regulations.]	After the compliance date listed under b)(2)b. below, sulfur dioxide emissions from emissions units B002 and B003, combined, shall not exceed 24,930 pounds per calendar day.
g.	40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-63.7575) [In accordance with 40 CFR 63.7490(a)(1), 63.7499 and 63.7575, this emissions unit is an existing industrial boiler unit designed to burn gas 1 fuels.]	See b)(2)c. below.
h.	40 CFR Part 63, Subpart A	See 40 CFR Part 63.7565 and Table 10 to Subpart DDDDD for the Applicability of General Provisions to this Subpart.
i.	OAC rule 3745-31-05(D) (Synthetic minor to avoid DRR for 2010 1-hour SO ₂ primary NAAQS)	See facility wide terms and conditions B.9.
j.	40 CFR Part 63, Subpart S (63.440-63.459) [In accordance with 63.440, this facility is an existing kraft papermill plant site that is a major source as defined in 63.2 of subpart A.]	This emissions unit is used maintain compliance with the HAP control requirements outlined in 40 CFR 63.443. See c)(3), d)(4), and e)(4) below.

(2) Additional Terms and Conditions

- a. Refer to Part B. – Facility-Wide Terms and Conditions of the permit for the requirements of OAC Chapter 3745-14 "NO_x Budget Trading Program in Ohio" and OAC Chapter 3745-109 "Clean Air Interstate Rule."
- b. Emissions units B002 and B003 (Boilers No. 7 and No. 8, respectively) are subject to the Best Available Retrofit Technology (BART) requirements of the U.S. EPA's Regional Haze Regulations (40 CFR Part 51, Subpart P). The



permittee shall operate and maintain control measures constituting an “alternative to BART” that will achieve greater reasonable progress than would be achieved through installation and operation of BART, as allowed under 40 CFR Part 51.308(e)(2).

Emissions unit B003 (Boiler No. 8) is equipped with four Advanced Combustion Technology low-NO_x staged-combustion burners, which, based upon Ohio EPA’s analysis, satisfy the BART nitrogen oxides technology requirement.

The permittee shall achieve the required nitrogen oxides emission reduction by not later than January 31, 2017 by routinely employing the four Advanced Combustion Technology staged-combustion burners in their lowest-NO_x mode on a year-round basis, rather than limiting low-NO_x operation to the control period (May 1 through September 30) specified in OAC Chapter 3745-14.

The permittee shall achieve the required sulfur dioxide emission reduction, on a year-round basis, by not later than January 31, 2017. As part of this “alternative to BART,” the permittee shall install, operate, and maintain control technology sufficient to meet the emissions limitation in section b)(1)g. This may include an add-on control device, use of an alternative fuel, use of low sulfur fuel, permanent shut down of emissions unit B002, or a combination of these measures. By no later than January 31, 2017, the permittee shall submit to Ohio EPA an application for modification of this federally enforceable permit. The application shall include a compliance plan outlining, at a minimum, the specific, selected control technologies and methods of compliance; and these requirements, along with any appropriate monitoring, record keeping, and reporting requirements, shall be incorporated into the federally enforceable permit by no later than January 31, 2017.

- c. This emissions unit shall be subject to the applicable requirements specified in 40 CFR Part 63, Subpart DDDDD when the regulations become effective on January 31, 2017.

c) Operational Restrictions

- (1) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart DDDDD, including the following sections:

63.7500(a)(1) and 63.7515(d)	Meet work practice standards in Table 3.
63.7500(a)(3)	Operate and maintain affected source in a manner consistent with safety and good air pollution control practices for minimizing emissions.
63.7500(b)	EPA may approve use of alternative work practice



	standards.
63.7500(e)	Units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13, or operating limits in Table 4.
63.7505(a)	Must be in compliance with the emission limits, work practice standards, and operating limits in this subpart. These limits apply at all times except for the periods noted in 63.7500(f).
63.7510(e) and Table 3	Initial tune-up and energy assessment requirement.
63.7575	Definition of unit designed to burn gas 1 subcategory. Restriction on total hours and type of use of liquid fuel.

- (2) The quality of the oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitations specified in section b)(1)d and f. above.
 - (3) This emissions unit shall not be taken out of service at the same time as both emissions units B003 (Boiler No. 8) and B013 (Wood Waste Boiler), except during emergency outages. Emissions unit B013 shall serve as the primary incineration point for high-volume low concentration NCG. Either emissions unit B002 or B003 shall serve as a backup control device for high-volume low concentration NCG combustion. If emissions unit B002 is permanently shut down, emissions unit B003 shall serve as the backup control device for high-volume low concentration NCG combustion and shall not be taken out of service at the same time as emissions unit B013, except during emergency outages.
 - (4) The permittee shall burn only natural gas and/or number two fuel oil in this emissions unit.
- d) **Monitoring and/or Recordkeeping Requirements**
- (1) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 63, Subpart DDDDD, including the following sections:



63.7540(a)(10)(vi)	Maintain on-site and submit, if requested by Administrator, annual report containing information in (a)(10)(vi)(A) through (C) of this section.
63.7555(a)	Maintain records in accordance with (a)(1) and (2) of this section.
63.7555(d)(10) and 63.7555(i)	Maintain records of the calendar date, time, occurrence and duration of each startup and shut down.
63.7555(d)(11) and 63.7555(j)	Maintain records of type and quantity of fuel used for each startup and shut down.
63.7555(h)	Maintain records of total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.

- (2) The permittee is exempt from visible particulate emission limitations for stack emissions during startup and shut down periods pursuant to OAC rule 3745-17-07(A)(3)(a)(ii) and (A)(3)(b)(ii). The exemption applies for a period of not more than three hours from the moment of startup and for a shut down period of not more than three hours, provided that the director may incorporate a longer startup time period in the permit or variance for such source for which an applicant demonstrates to the satisfaction of the director that the longer time period is required.
- (3) The permittee shall comply with the requirements of one of the following alternatives pertaining to the use of number 2 fuel oil:
 - a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/million Btu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.



b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/million Btu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).

c. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

(4) The permittee shall maintain records for each day when emissions units B002, B003, and B013 were all off line and the venting of high-volume low concentration NCG was uncontrolled. If emissions unit B002 is permanently shut down after January 31, 2017, the permittee shall maintain records for each day when emissions units B003 and B013 were off line and the venting of high-volume low concentration NCG was uncontrolled.

(5) For each day during which the permittee burns a fuel other than number 2 fuel oil or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

(2) The permittee shall comply with applicable reporting requirements required under 40 CFR Part 63, Subpart DDDDD, including the following sections:

63.7495(d)	Submit notification requirements
63.7530(d)	Submit notification of compliance Status report signed statement indicating a tune-up of the unit was conducted.
63.7530(e)	Submit notification of compliance Status report signed statement indicating the energy assessment was completed according to Table

	3 to this subpart and is an accurate depiction of facility at the time the assessment was conducted.
63.7530(f)	Submit notification of compliance Status containing the results of the initial compliance demonstration according to the requirements in 63.7545(e).
63.7545(a)	Submit to Administrator all of the notifications in 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to the emissions unit by the dates specified.
63.7545(b)	If startup affected source before January 31, 2013, submit initial notification no later than 120 days after January 31, 2013.
63.7545(e)	Submit notice of compliance status which contain all the information specified in paragraphs (e)(1) through (e)(8), as applicable.
63.7545(f)	Submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 63.7575 and must include information specified in (f)(1) through (5) of this section.
63.7550(a)	Submit each report in Table 9 to this subpart that applies.
63.7550(b)	Unless the EPA Administrator has approved a different schedule for submission of reports under 63.10(a), facility must submit each report, according to paragraph (h) of this section, by the date in Table 9 to this subpart and according to the requirements in



	paragraphs (b)(1) through (4) of this section. For units that are subject only to annual, biennial, or 5 year tune- up requirements and not subject to emissions limitations or operating restrictions, may submit only compliance report, as applicable, as specified in paragraph (b)(1) through (4) of this section, instead of a semi-annual compliance report.
63.7550(c)(1)	Submit a compliance report with the information in (c)(5)(i) through (iii), (xiv), and (xvii) of this section.
63.7550(h)(3)	Submit all reports required by Table 9 of this subpart electronically through CEDRI. If no form available, facility must submit report to Administrator at appropriate address listed in 63.13. At discretion of Administrator, the facility must also submit these reports to the Administrator in the format specified by the Administrator.

- (3) The permittee shall notify the Ohio EPA, Southeast District Office in writing of any record that shows a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates from section d)(3) above when firing number 2 fuel oil. The notification shall include a copy of such record and shall be sent to the Ohio EPA, Southeast District Office. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.
- (4) The permittee shall submit quarterly deviation (excursion) reports that identify any period of time when emissions units B002, B003, and B013 were all off line and the venting of high-volume low concentration NCG was uncontrolled. If emissions unit B002 is permanently shut down after January 31, 2017, the permittee shall submit deviation (excursion) reports that identify any period of time when emissions units B003 and B013 were off line and the venting of high-volume low concentration NCG was uncontrolled. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.
- (5) Beginning in calendar year 2017, the permittee shall submit quarterly deviation (excursion) reports that identify any days (excluding any days within the “control period” specified in OAC Chapter 3745-14) when this emissions unit was in service and the unit’s low-NO_x staged-combustion burners were not operating at their lowest-NO_x mode.



These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.

- (6) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

f) Testing Requirements

- (1) The permittee shall comply with applicable compliance requirements required under 40 CFR Part 63, Subpart DDDDD, including the following sections:

63.7540(a)	Demonstrate compliance with work practice standards in Table 3 to this subpart.
63.7540(a)(12)-(13)	<p>Conduct tune-up of boiler every 5 years as specified in (a)(10)(i) through (vi) of this section to demonstrate continuous compliance. The facility may delay the burner inspection specified in (a)(10)(i) of this section until the next scheduled or unscheduled unit shut down, but must inspect each burner at least once every 72 months.</p> <p>If unit is not operating on required date for tune-up, the tune-up must be conducted within 30 calendar days of startup.</p>

- (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:

Visible particulate emissions from the exhaust stack serving emissions units B002 and B003 shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Methods:

If required, visible particulate emissions shall be determined according to USEPA Method 9.



b. Emission Limitation:

Particulate emissions shall not exceed 0.020 pound per million Btu of actual heat input, when firing only natural gas or number 2 fuel oil.

Applicable Compliance Method:

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office, and the procedures specified in OAC rule 3745-17-03(B)(9).

c. Emission Limitation:

Sulfur dioxide emissions shall not exceed 9.9 pounds per million Btu actual heat input.

When firing fuel oil, compliance with this sulfur dioxide emission limitation may be demonstrated based upon the records required pursuant to section d)(3).

Applicable Compliance Methods:

If required, sulfur dioxide emissions shall be determined according to test Methods 1 - 4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

d. Emission Limitation:

By not later than January 31, 2017, sulfur dioxide emissions from emissions units B002 and B003, combined, shall not exceed 24,930 pounds per calendar day.

Applicable Compliance Method:

When firing fuel oil, compliance with this sulfur dioxide emission limitation may be demonstrated based upon the records required pursuant to section d)(3).

When firing natural gas, compliance with this emission limitation may be determined by dividing an emission factor of 5.7 pounds of particulates per 1,000,000 standard cubic feet (MMscf) of natural gas fired by the high heating value of natural gas (1,050 MMBtu/MMscf). This emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, sulfur dioxide emissions shall be determined according to test Methods 1 - 4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative



Draft Permit-to-Install
P. H. Glatfelter Company - Chillicothe Facility
Permit Number: P0118906
Facility ID: 0671010028
Effective Date: To be entered upon final issuance

U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

- g) Miscellaneous Requirements
 - (1) None.



5. B013, No. 6 Boiler (pre- natural gas project)

The information detailed below remains in effect until the resumption of regular operations of No. 6 Boiler after the changes detailed in the May 2015 application entitled “Boiler MACT/BART Project Permit-to-Install Application and Environmentally Beneficial Exemption Request” and approved by OEPA in the September 23, 2015 Environmentally Beneficial Determination. The changes include, but are not limited to, the addition of a fourth wet electrostatic precipitator (WESP) module. (This permit serves as an administrative modification to 06-07700 issued 2/14/2015).

Operations, Property and/or Equipment Description:

B013 – No. 6 Wood Residue Boiler rated at 539 MMBtu/hr (limited by permit to 400 MMBtu/hr), controlled with cyclones, a wet scrubber, and a WESP. Fueled by #2 fuel, Tire Derived Fuel (TDF), non-condensable gases (NCGs), dewatered sludge, and other milled wood wastes.

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) d)(8), d)(9), d)(10), d)(11) and e)(5)
- 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)	PM ₁₀ emissions shall not exceed 0.042 lb/MMBtu of actual heat input, as a 3-hour average. Sulfur dioxide emissions shall not exceed 3.2 lbs/MMBtu of actual heat input, as a 3-hour average. Nitrogen oxide emissions shall not exceed 0.59 lb/MMBtu of actual heat input, as a 3-hour average. Carbon monoxide emissions shall not exceed 0.89 lb/MMBtu of actual heat input, as a 3-hour average. Volatile organic compound emissions shall not exceed 0.051 lb/MMBtu of actual heat input, as a 3-hour average.



Draft Permit-to-Install

P. H. Glatfelter Company - Chillicothe Facility

Permit Number: P0118906

Facility ID: 0671010028

Effective Date: To be entered upon final issuance

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>H₂SO₄ emissions shall not exceed 0.16 lb/MMBtu of actual heat input, as a 3-hour average.</p> <p>Carbon monoxide emissions during periods of startup/shut down shall not exceed 3.75 lbs/MMBtu of actual heat input, as an 8-hour block average.</p> <p>Compliance with this rule also includes compliance with OAC rules 3745-17-07(A) and 3745-18-06(D).</p>
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-18-06(D)	Sulfur dioxide emissions shall not exceed 1.6 lbs per MMBtu of actual heat input, when burning #2 fuel oil in the emissions unit
d.	OAC rule 3745-17-10(C)(1)	The emission limitation specified in this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-31-05(D)	<p>The tons of emissions per rolling, 12-month period shall not exceed:</p> <p>PM₁₀ – 73.6; Sulfur dioxide – 5,606.4; Nitrogen oxide – 1,033.7; Carbon monoxide – 1,559.3; Volatile organic compounds – 89.4; and H₂SO₄ – 280.3.</p>
f.	<p>40 CFR Part 63, Subpart S (63.440-63.459)</p> <p>[In accordance with 63.440, this facility is an existing kraft papermill plant site that is a major source as defined in 63.2 of subpart A.]</p>	<p>This emissions unit is used to maintain compliance with the HAP control requirements outlined in 40 CFR 63.47443.</p> <p>See c)(2) and e(4) below.</p>
g.	OAC rule 3745-114-01	See d)(8), d)(9), d)(10), d)(11) and e)(5).

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

- (1) The maximum annual fuel heat input for this emissions unit shall not exceed 3,504,000 MMBtu, based upon a rolling, 12-month summation of heat input values.
- (2) This emissions unit and emissions unit B002 (No.7 Coal Boiler) and emissions unit B003 (No. 8 Boiler) shall not be taken out of service at the same time, except during emergency outages, when the noncondensable total reduced sulfur gases from emissions unit P015 are vented to either this emissions unit, emissions unit B002 (No.7 Coal Boiler), or emissions unit B003 (No. 8 Boiler).
- (3) The normal operating scenario is to operate the cyclones, wet ESP and the scrubber for particulate control. If the wet ESP is off-line, efforts shall be made to return it to service as expeditiously as possible. When the wet ESP is off-line (Alternate Operating Scenario), the permittee shall restrict the steam flow rate for this emissions unit to 200,000 lbs/hr of steam or less.
- (4) The minimum pressure drop or pressure drop range across the scrubber, and the minimum scrubber water flow rate shall be determined during the initial performance test that demonstrates that the emissions unit is in compliance. The permittee shall use a 3-hour average to determine compliance with the levels established through the initial performance test. That minimum pressure drop or pressure drop range across the scrubbers and minimum scrubber water flow rate shall be continuously maintained at all times while the emissions unit is in operation.

The operation of the scrubber outside the ranges specified above may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, Southeast District Office, compliance with the mass emission limitation and visible emission limitation shall be determined by performing concurrent mass emission tests and visible emissions observations using USEPA-approved methods and procedures. The results of any required emission tests and visible emission observations shall be used in determining whether or not the operation of the scrubber outside the range specified above is indicative of a possible violation of the mass emission limitation and/or visible emission limitation and, if appropriate, to reestablish a more representative pressure drop and water flow rate range.

- (5) The quality of the oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable SO₂ emission limitation specified in section b)(1)c. and b)(1)a. above.
 - a. The average total combined power input (in kilowatts) to all fields of the wet ESP, for any 3-hour block of time when the emissions unit is in operation, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emission tests that demonstrated the emissions unit was in compliance with the particulate emission limitation in b)(1)a.
 - b. The minimum number of fields on-line in the wet ESP, for any 3-hour block of time when the emissions unit is in operation, shall be no less than the number of fields on-line during the most recent emission tests that demonstrated the



emissions unit was in compliance with the particulate emission limitation in b)(1)a.

c. The operation of the wet ESP outside the ranges specified above may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, Southeast District Office, compliance with the mass emission limitation and visible emission limitation shall be determined by performing concurrent mass emission tests and visible emissions observations using USEPA-approved methods and procedures. The results of any required emission tests and visible emission observations shall be used in determining whether or not the operation of the wet ESP outside the range specified above is indicative of a possible violation of the mass emission limitation and/or visible emission limitation and, if appropriate, to reestablish a more representative total combined power input and the minimum number of fields on-line during operation.

(6) Installation and operation of the emissions units included in this PTI (B002, B003, and B013) is contingent upon the permanent shut down of the #5 Coal Boiler (B001). The net change in emissions as a result of this equipment shut down and installation is as follows:

Project Emissions (TPY)	PM ₁₀	SO ₂	NO _x	CO	VOC	H ₂ SO ₄	Lead	TRS	Mercury
Net Project Increases B013	33	5588	817	102	39.8	279	0.006	0.2	0.0001
B001 Shut down	20	7058	781	3	1	353	0.560	0	0.01
Net Change	14	-1470	36	99	na*	-73	na*	na*	na*

As a result of the net change in emissions, the proposed modification of B013 is not a major modification and the permittee has “netted” out of Federal Prevention of Significant Deterioration requirements.

d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall continuously monitor and record the steam flow rate from B013. Copies of all supporting steam records shall be maintained for a period of 5 calendar years, and shall be made available to the Director (the Ohio EPA Southeast District Office) upon verbal or written request.
- (2) The permittee shall properly operate and maintain equipment to continuously monitor the pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

- a. the pressure drop across the scrubber, in inches of water, on a 3-hour average basis;
- b. the scrubber water flow rate, in gallons per minute, on a 3-hour average basis; and
- c. the downtimes for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was in operation.

If the pressure drop across the scrubber is not maintained at or above the specified level or the scrubber water flow rate is not maintained at or above the specified level, then appropriate corrective actions shall be pursued. The permittee may reestablish these minimum values based upon data collected during the most recent emission tests that demonstrate that the emissions unit was in compliance with the applicable requirements, and any future corrective actions shall take place based upon these revised values.

- (3) The permittee shall properly operate and maintain equipment to continuously monitor and record the number of wet ESP fields on-line and the combined power input through the wet ESP while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall record all time periods when the emissions unit was in operation and the wet ESP was not on-line.

- (4) The permittee shall properly operate and maintain equipment to continuously monitor and record the steam flow rate from this emissions unit when the wet ESP is off-line. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the average hourly steam flow rate for all time periods when the emissions unit is in operation and the wet ESP is not on-line.

- (5) The permittee shall comply with the requirements of either Alternative 1 or Alternative 2 below pertaining to the use of #2 fuel oil.

- a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/MMBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/MMBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

c. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

(6) The permittee shall monitor and record the following information on a monthly basis:

- a. the tons of wood residue that was fed to the boiler that month and the heating value of the wood residue;
- b. the tons of TDF that was fed to the boiler that month and the heating value of the TDF;
- c. the amount of NCG's fed to the boiler that month and the calculated heating value of NCG's that were burned that month;
- d. the amount of dewatered sludge and waste paper fed to the boiler and calculated heating value of dewatered sludge and waste paper that month;
- e. the tons of milled wood wastes that were fed to the boiler that month and the heating value of the other milled wood wastes; and
- f. the total actual heat input to the emissions unit, calculated as follows:

$$MI = MI_w + MI_t + MI_g + MI_s + MI_o$$

where:

MI = total heat input for each day, in MMBtu;

MI_w = monthly heat input from wood residue (heating value of wood residue * the amount of wood residue fed to the boiler);

MI_t = monthly heat input rate from TDF (heating value of TDF * the amount of TDF fed to the boiler);



MI_g = monthly heat input rate from NCG's (heating value of NCG * the amount of NCG fed to the boiler);

MI_s = monthly heat input rate from dewatered sludge and waste paper (heating value of dewatered sludge and waste paper * the amount of dewatered sludge and waste paper fed to the boiler); and

MI_o = monthly heat input rate from other milled wood wastes.

The heat content not calculated in the record keeping above shall be determined through raw materials sampling and testing, on a monthly basis. The raw materials that are not calculated include TDF, wood residue, and other milled wood wastes. A representative composite sample shall be taken from the raw materials fed into the boiler and appropriate testing performed to determine heat content of these materials in order to fulfill the record keeping requirements above. Upon written receipt from Ohio EPA, the sampling and testing frequency of raw materials may be performed quarterly instead of monthly.

- (7) The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the rolling, 12-month summation of fuel heat input, in MMBtu.
- (8) The permit to install for this emissions unit B013 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Chlorine

TLV (mg/m³): 1,471.83

Maximum Hourly Emission Rate (lbs/hr): 0.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.10

MAGLC (ug/m³): 35.04

Pollutant: Methylene Chloride

TLV (mg/m³): 86,750

Maximum Hourly Emission Rate (lbs/hr): 2.6



Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 7.29

MAGLC (ug/m3): 2,065.5

Pollutant: Napthalene

TLV (mg/m3): 50,000

Maximum Hourly Emission Rate (lbs/hr): 0.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.32

MAGLC (ug/m3): 1,190.5

Pollutant: Zinc Oxide

TLV (mg/m3): 2,000

Maximum Hourly Emission Rate (lbs/hr): 10.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 28.85

MAGLC (ug/m3): 47.62

- (9) Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. 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:
- a. 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";
 - b. 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
 - c. 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.).

- (10) 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 permit to install 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 permit to install prior to the change.
 - (11) The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy."
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- e) Reporting Requirements
- (1) The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel heat input limitation. The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
 - (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all periods of time during which the static pressure drop across the scrubber was not maintained at or above the level specified in section c) when the emissions unit was in operation;
 - b. all periods of time during which the scrubber water flow rate was not maintained at or above the level specified in section c) when the emissions unit was in operation;
 - c. all periods of time during which the minimum number of wet ESP fields, specified in section c), were not in service when the emissions unit was in operation;
 - d. all periods of time during which the combined power input to the wet ESP was not maintained at or above the level specified in section c) when the emissions unit was in operation;



- e. all periods of time during which the emissions unit was in operation, the wet ESP was off-line, and the emissions unit's steam flow rate exceeded the level specified in section c); and
- f. all periods of time during which the capture (collection) systems, control devices, and monitoring systems were not in service when the associated emissions unit was in operation.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

- (3) The permittee shall notify the Ohio EPA Southeast District Office in writing of any record which shows a deviation of the allowable SO₂ emission limitation based upon the calculated SO₂ emission rates from section d) above. The notification shall include a copy of such record and shall be sent to the Ohio EPA Southeast District Office in the next quarterly report.
- (4) The permittee shall submit deviation (excursion) reports that identify any period of time when B002, B003, and B013 were all offline and the venting of NCG's was uncontrolled. Each report shall be submitted within 30 days after the deviation occurs.
- (5) 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 quarterly deviation (excursion) reports. 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) Compliance with the emission 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:

PM₁₀ emissions shall not exceed 0.042 lb/MMBtu of actual heat input, as a 3-hour average.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation shall be demonstrated based upon the applicable emission tests for this emission limitation specified in f)(2).

- b. Emission Limitation:

Sulfur dioxide emissions shall not exceed 3.2 lbs/MMBtu of actual heat input, as a 3-hour average.



Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation shall be demonstrated based upon the applicable emission tests for this emission limitation specified in f)(2).

c. Emission Limitation:

Nitrogen oxide emissions shall not exceed 0.59 lb/MMBtu of actual heat input, as a 3-hour average.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation shall be demonstrated based upon the applicable emission tests for this emission limitation specified in section f)(2).

d. Emission Limitation:

Carbon monoxide emissions shall not exceed 0.89 lb/MMBtu of actual heat input, as a 3-hour average.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation shall be demonstrated based upon the applicable emission tests for this emission limitation specified in f)(2).

e. Emission Limitation:

Volatile organic compounds emissions shall not exceed 0.051 lb/MMBtu of actual heat input, as a 3-hour average.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation shall be demonstrated based upon the applicable emission tests for this emission limitation specified in f)(2).

f. Emission Limitation:

H₂SO₄ emissions shall not exceed 0.16 lb/MMBtu of actual heat input, as a 3-hour average.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation shall be demonstrated based upon the applicable emission tests for this emission limitation specified in f)(2).

g. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.



Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

h. Emission Limitation:

Sulfur dioxide emissions shall not exceed 1.6 lbs per MMBtu of actual heat input when burning #2 fuel oil in this emissions unit.

Applicable Compliance Method:

Compliance may be determined based upon the records required by section d) above.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 or 6A.

i. Emission Limitation:

The tons of emissions per rolling, 12-month period shall not exceed:

PM₁₀ – 73.6;

Sulfur dioxide – 5,606.4

Nitrogen oxide – 1,033.7;

Carbon monoxide – 1,559.3;

Volatile organic compounds – 89.4; and

H₂SO₄ – 280.3.

Applicable Compliance Method:

Compliance with the annual emission limitations shall be demonstrated by the record keeping requirements specified in section d) and the associated emission factors.

j. Emission Limitation:

Carbon monoxide emissions during periods of startup/shut down shall not exceed 3.75 lbs/MMBtu of actual heat input, as an 8-hour block average.



Applicable Compliance Method:

If required, carbon monoxide emissions shall be determined according to test Methods 1 - 4 and 10 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

Per 63.7515(i), certified CO CEMS data may be used in lieu of CO compliance testing for this emission limitation.

(2) 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 within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.
- b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PM₁₀, sulfur dioxide nitrogen oxide, carbon monoxide, volatile organic compounds and H₂SO₄.
- c. The emissions testing shall be conducted in accordance with the following:
 - for PM₁₀: Methods 201 and 202 of 40 CFR Part 51, Appendix M;
 - for SO₂: Methods 1 - 4 and 6 of 40 CFR Part 60, Appendix A;
 - for NO_x: Methods 1 - 4 and 7E of 40 CFR Part 60, Appendix A;
 - for CO: Methods 1 - 4 and 10 of 40 CFR Part 60, Appendix A;
 - for VOC: Methods 1 - 4 and 25 of 40 CFR Part 60, Appendix A;
 - for H₂SO₄: Methods 1 - 4 and 8A of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- d. The emissions testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Southeast District Office.
- e. Not later than 30 days prior to the proposed test dates, the permittee shall submit an "Intent to Test" notification to the Ohio EPA Southeast District Office. 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 persons 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 Southeast District Office's refusal to accept the results of the emission tests.



Draft Permit-to-Install

P. H. Glatfelter Company - Chillicothe Facility

Permit Number: P0118906

Facility ID: 0671010028

Effective Date: To be entered upon final issuance

- f. Personnel from the Ohio EPA Southeast District Office shall be permitted to witness the tests, 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 from the emissions unit and/or the performance of the control equipment.
 - g. A comprehensive written report on the results of the emission tests shall be submitted to the Ohio EPA Southeast District Office within one month following completion of the tests. The permittee may obtain additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Southeast District Office.
- g) Miscellaneous Requirements
- (1) None.



6. B013, No. 6 Boiler (post- natural gas project)

The information detailed below takes effect following resumption of regular operations of No. 6 Boiler after the changes detailed in the May 2015 application entitled “Boiler MACT/BART Project Permit-to-Install Application and Environmentally Beneficial Exemption Request” and approved by OEPA in the September 23, 2015 Environmentally Beneficial Determination letter. The changes include, but are not limited to, the addition of a fourth wet electrostatic precipitator (WESP) module. (This permit serves as an administrative modification to 06-07700 issued 2/14/2015).

Operations, Property and/or Equipment Description:

B013 – No. 6 Wood Residue Boiler rated at 539 MMBtu/hr (limited by permit to 400 MMBtu/hr), controlled with cyclones, a wet scrubber, and a WESP. Fueled by 32 fuel, Tire Derived Fuel (TDF), non-condensable gases (NCGs), dewatered sludge, and other milled wood wastes.

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) d)(10), d)(11), d)(12), d)(13) and e)(6)
- 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)	PM ₁₀ emissions shall not exceed 0.042 lb/MMBtu of actual heat input, as a 3-hour average. Sulfur dioxide emissions shall not exceed 3.2 lbs/MMBtu of actual heat input, as a 3-hour average. Nitrogen oxide emissions shall not exceed 0.59 lb/MMBtu of actual heat input, as a 3-hour average. Carbon monoxide emissions shall not exceed 0.89 lb/MMBtu of actual heat input, as a 3-hour average. Volatile organic compound emissions shall not exceed 0.051 lb/MMBtu of actual heat input, as a 3-hour average.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>H₂SO₄ emissions shall not exceed 0.16 lb/MMBtu of actual heat input, as a 3-hour average.</p> <p>Carbon monoxide emissions during periods of startup/shut down shall not exceed 3.75 lbs/MMBtu of actual heat input, as an 8-hour block average.</p> <p>Compliance with this rule also includes compliance with OAC rules 3745-17-07(A) and 3745-18-06(D).</p>
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-18-06(D)	Sulfur dioxide emissions shall not exceed 1.6 lbs per MMBtu of actual heat input, when burning #2 fuel oil in the emissions unit
d.	OAC rule 3745-17-10(C)(1)	The emission limitation specified in this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-31-05(D)	<p>The tons of emissions per rolling, 12-month period shall not exceed:</p> <p>PM₁₀ – 73.6; Sulfur dioxide – 5,606.4; Nitrogen oxide – 1,033.7; Carbon monoxide – 1,559.3; Volatile organic compounds – 89.4; and H₂SO₄ – 280.3.</p>
f.	<p>40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-63.7575)</p> <p>[In accordance with 40 CFR 63.7490(a)(1), 63.7499 and 63.7575, this emissions unit is an existing stoker/sloped grate/other unit designed to burn wet biomass/bio—based solid fuel and other solid fuel.]</p>	<p>HCL shall not exceed 0.022 lb/MMBtu of heat input, except during startup and shut down or 0.025 lb/MMBtu of steam output, except during startup and shut down.</p> <p>Mercury shall not exceed 0.0000057 lb/MMBtu of heat input except during startup or shut down or 0.0000064 lb/MMBtu of steam output except during startup and shut down.</p> <p>CO (or CEMS) shall not exceed 1,500 ppm by volume on a dry basis corrected to 3% oxygen, 3-run average; or (720</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>ppm by volume on a dry basis corrected to 3% oxygen, 30 day rolling average) except during startup and shut down or 1.4 lb/MMBtu of steam output; 3-run average, except during startup and shut downs.</p> <p>Filterable PM (or TSM) shall not exceed 0.037lb/MMBtu of heat input; or (0.00024 lb/MMBtu of heat input) except during startup and shut down or 0.043 lb/MMBtu of steam output or (0.00028 lb/MMBtu of steam output), except for startup and shut down.</p> <p>See b)(2)a. below.</p>
g.	40 CFR Part 63, Subpart A	See 40 CFR Part 63.7565 and Table 10 to Subpart DDDDD for the Applicability of General Provisions to this Subpart.
h.	OAC rule 3745-31-05(D) (Synthetic minor to avoid DRR for 2010 1-hour SO ₂ primary NAAQS)	See facility wide terms and conditions B.9.
i.	40 CFR Part 63, Subpart S (63.440-63.459) [In accordance with 63.440, this facility is an existing kraft papermill plant site that is a major source as defined in 63.2 of subpart A.]	<p>This emissions unit is used to maintain compliance with the HAP control requirements outlined in 40 CFR 63.47443.</p> <p>See c)(3) and e)(5) below.</p>
j.	OAC rule 3745-114-01	See d)(10), d)(11), d)(12), d)(13) and e)(6).

(2) Additional Terms and Conditions

- a. This emissions unit will be subject to the applicable requirements specified in 40 CFR Part 63, Subpart DDDDD when the regulations become effective on January 31, 2017. See B.3.

c) Operational Restrictions

- (1) The permittee shall comply with the applicable operational restrictions required under 40 CFR Part 63, Subpart DDDDD, including the following sections:

63.7500(a)(1) except (a)(1)(i)-(iii)	work practice standards in Table 3.
63.7500(a)(3)	safety and good air pollution control practices.
63.7501	Affirmative defense for violation of emission standards during malfunction requirements.
63.7500(f), 63.7505(a), and 63.7530(h)	Periods when standards apply.
63.7510(e)	Initial tune-up and energy assessment requirement.
63.7500(a)(2)	Operating limits in Table 4.
63.7505(a)	Meet be in compliance with the emission limits, work practice standards, and operating limits in this subpart. These limits apply at all times except for the periods noted in 63.7500(f).

- (2) The maximum annual fuel heat input for this emissions unit shall not exceed 3,504,000 MMBtu, based upon a rolling, 12-month summation of heat input values.
- (3) This emissions unit and emissions unit B002 (No.7 Boiler) and unit B003 (No. 8 Boiler) shall not be taken out of service at the same time, except during emergency outages, when the noncondensable total reduced sulfur gases from emissions unit P015 are vented to either this emissions unit, emissions unit B002 (No.7 Boiler), or emissions unit B003 (No. 8 Boiler).
- (4) The normal operating scenario is to operate the cyclones, wet ESP and the scrubber for particulate control. If the wet ESP is off-line, efforts shall be made to return it to service as expeditiously as possible. When the wet ESP is off-line (Alternate Operating Scenario), the permittee shall restrict the steam flow rate for this emissions unit to 200,000 lbs/hr of steam or less.
- (5) The quality of the oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable SO₂ emission limitation specified in b)(1)a and b)(1)c above.
- (6) The minimum number of fields on-line in the wet ESP, for any 3-hour block of time when the emissions unit is in operation, shall be no less than the number of fields on-line



during the most recent emission tests that demonstrated the emissions unit was in compliance with the particulate emission limitation in b)(1)a.

The operation of the wet ESP outside the ranges specified above may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, Southeast District Office, compliance with the mass emission limitation and visible emission limitation shall be determined by performing concurrent mass emission tests and visible emissions observations using USEPA-approved methods and procedures. The results of any required emission tests and visible emission observations shall be used in determining whether or not the operation of the wet ESP outside the range specified above is indicative of a possible violation of the mass emission limitation and/or visible emission limitation and, if appropriate, to reestablish a more representative total combined power input and the minimum number of fields on-line during operation.

- (7) Installation and operation of the emissions units included in this PTI (B002, B003, and B013) is contingent upon the permanent shut down of the #5 Coal Boiler (B001). The net change in emissions as a result of this equipment shut down and installation is as follows:

Project Emissions (TPY)	PM ₁₀	SO ₂	NO _x	CO	VOC	H ₂ SO ₄	Lead	TRS	Mercury
Net Project Increases B013	33	5588	817	102	39.8	279	0.006	0.2	0.0001
B001 Shut down	20	7058	781	3	1	353	0.560	0	0.01
Net Change	14	-1470	36	99	na*	-73	na*	na*	na*

As a result of the net change in emissions, the proposed modification of B013 is not a major modification and the permittee has “netted” out of Federal Prevention of Significant Deterioration requirements.

d) Monitoring and/or Record Keeping Requirements

- (1) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 63, Subpart DDDD, including the following sections:

63.7505(d)(2)-(4)	Site-specific monitoring plan requirements.
63.7515(d)	Tune-up work practice standard.
63.7555(a)	General record keeping requirements.

63.7521(b)	Site-specific fuel analysis monitoring plan requirement.
63.7521(c)-(e)	Composite fuel sampling requirements.
63.7525(a)(1)-(6) except 63.7525(a)(2)(v)	Oxygen analyzer system or CEMS for CO and oxygen requirements.
63.7525(a)(7)	Oxygen trim system in lieu of CO CEMS.
63.7525(d)-(e)	Requirements for CMS other than a PM CPMS or COMS.
63.7525(f)	Requirements for operating limit that requires the use of a pressure monitoring system
63.7525(h)	Requirements for operating limit that requires a secondary electric power monitoring system for an ESP operated with a wet scrubber.
63.7540(a)(1)	Deviation of operating limits in Table 4.
63.7540(a)(2)	Fuel burning record requirements.
63.7540(a)(8)	Alternative CO CEMS emission limit compliance demonstration requirements.
63.7540(a)(10)	Annual tune-up requirements should continuous O ₂ trim system not maintain an optimum air to fuel ratio.
63.7540(d)	Startup and shut down work practice standards according to item 5 of Table 3 of this subpart.
63.7555(b) and (c)	CEMS, COMS and continuous monitoring system record keeping and additional record keeping requirements in Table 8.



63.7555(d) and (4)-(11), 63.7555(i), and 63.7555(j)	Records required for a boiler subject to an emission limit in Table 2.
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- (2) The permittee shall continuously monitor and record the steam flow rate from emissions unit B013. Copies of all supporting steam records shall be maintained for a period of 5 calendar years, and shall be made available to the Director (the Ohio EPA Southeast District Office) upon verbal or written request.
- (3) The permittee shall properly operate and maintain equipment to continuously monitor and record the number of wet ESP fields on-line and the total secondary electric power input through the wet ESP while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
- (4) The permittee shall record all time periods when the emissions unit was in operation and the wet ESP was not on-line.
- (5) The permittee shall properly operate and maintain equipment to continuously monitor and record the steam flow rate from this emissions unit when the wet ESP is off-line. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
- (6) The permittee shall collect and record the average hourly steam flow rate for all time periods when the emissions unit is in operation and the wet ESP is not on-line.
- (7) The permittee shall comply with the requirements of either Alternative 1 or Alternative 2 below pertaining to the use of #2 fuel oil.
 - a. Alternative 1:

 For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/MMBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.
 - b. Alternative 2:

 The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when

the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/MMBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

- c. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.
- (8) The permittee shall monitor and record the following information on a monthly basis:
- a. the tons of wood residue that was fed to the boiler that month and the heating value of the wood residue;
 - b. the tons of TDF that was fed to the boiler that month and the heating value of the TDF;
 - c. the amount of NCG's fed to the boiler that month and the calculated heating value of NCG's that were burned that month;
 - d. the amount of dewatered sludge and waste paper fed to the boiler and calculated heating value of dewatered sludge and waste paper that month;
 - e. the tons of milled wood wastes that were fed to the boiler that month and the heating value of the other milled wood wastes; and
 - f. the total actual heat input to the emissions unit, calculated as follows:

$$MI = MI_w + MI_t + MI_g + MI_s + MI_o$$

where:

MI = total heat input for each day, in MMBtu;

MI_w = monthly heat input from wood residue (heating value of wood residue * the amount of wood residue fed to the boiler);

MI_t = monthly heat input rate from TDF (heating value of TDF * the amount of TDF fed to the boiler);

MI_g = monthly heat input rate from NCG's (heating value of NCG * the amount of NCG fed to the boiler);



MI_s = monthly heat input rate from dewatered sludge and waste paper (heating value of dewatered sludge and waste paper * the amount of dewatered sludge and waste paper fed to the boiler); and

MI_o = monthly heat input rate from other milled wood wastes.

The heat content not calculated in the record keeping above shall be determined through raw materials sampling and testing, on a monthly basis. The raw materials that are not calculated include TDF, wood residue, and other milled wood wastes. A representative composite sample shall be taken from the raw materials fed into the boiler and appropriate testing performed to determine heat content of these materials in order to fulfill the record keeping requirements above. Upon written receipt from Ohio EPA, the sampling and testing frequency of raw materials may be performed quarterly instead of monthly.

- (9) The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the rolling, 12-month summation of fuel heat input, in MMBtu.
- (10) The permit to install for this emissions unit B013 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Chlorine

TLV (mg/m³): 1,471.83

Maximum Hourly Emission Rate (lbs/hr): 0.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.10

MAGLC (ug/m³): 35.04

Pollutant: Methylene Chloride

TLV (mg/m³): 86,750

Maximum Hourly Emission Rate (lbs/hr): 2.6

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 7.29

MAGLC (ug/m³): 2,065.5



Pollutant: Napthalene

TLV (mg/m³): 50,000

Maximum Hourly Emission Rate (lbs/hr): 0.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.32

MAGLC (ug/m³): 1,190.5

Pollutant: Zinc Oxide

TLV (mg/m³): 2,000

Maximum Hourly Emission Rate (lbs/hr): 10.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 28.85

MAGLC (ug/m³): 47.62

- (11) Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. 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:
- a. 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";
 - b. 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
 - c. 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.).
- (12) 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 permit to install 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 permit to install prior to the change.

- (13) The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the “Air Toxic Policy:”
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of the evaluation and determination that the changed emissions unit still satisfies the “Air Toxic Policy”; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the “Air Toxic Policy” for the change.

e) Reporting Requirements

- (1) The permittee shall comply with applicable reporting requirements required under 40 CFR Part 63, Subpart DDDDD, including the following sections:

63.7495(d)	Notification requirements
63.7530(e)-(f) and 63.7545(e)	Notification of Compliance Status report requirements.
63.7545(a)	40 CFR Part 63, Subpart A notification requirements.
63.7550(a)	Reporting requirement in Table 9.
63.7550(b)	Compliance reporting schedule.
63.7550(c)(1)-(5) except 63.7550(c)(5)(xv)	Compliance report content requirements.
63.7505(d)(1)	Site-specific monitoring plan submittal requirements.
63.7515(f)	Performance tests and associated fuel analysis results reporting requirements.
63.7533(d) and (g)	Implementation Plan for efficiency credit approach.
63.7540(b)	Deviation reporting requirements.
63.7545(d)	Notification of intent to test



	requirements.
63.7550(d)	Submit deviation report from an emission limit or operating limit in this subpart that occurs at an individual boiler where a CMS is not being used to comply with that emission limit or operating limit.
63.7550(e)	Deviation reports for emissions unit that use CMS to comply with the emission limit or operating limit.
63.7550(h)	Reporting procedures.

- (2) The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel heat input limitation. The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all periods of time during which the minimum number of wet ESP fields, specified in section c), were not in service when the emissions unit was in operation;
 - b. all periods of time during which the combined power input to the wet ESP was not maintained at or above the level specified in section A.II when the emissions unit was in operation; and
 - c. all periods of time during which the emissions unit was in operation, the wet ESP was off-line, and the emissions unit's steam flow rate exceeded the level specified in section c).

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

- (4) The permittee shall notify the Ohio EPA Southeast District Office in writing of any record which shows a deviation of the allowable SO₂ emission limitation based upon the calculated SO₂ emission rates from section d) above. The notification shall include a copy of such record and shall be sent to the Ohio EPA Southeast District Office in the next quarterly report.
- (5) The permittee shall submit deviation (excursion) reports that identify any period of time when B002, B003, and B013 were all offline and the venting of NCG's was uncontrolled. Each report shall be submitted within 30 days after the deviation occurs.

- (6) 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 quarterly deviation (excursion) reports. 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 comply with the applicable compliance demonstration requirements required under 40 CFR Part 63, Subpart DDDDD, including the following sections:

63.7540(a) except (a)(7), (9)-(11), (14)-(15), and (18)-(19).	Work practice standards, emissions limits, and operating limits in Tables 2, 3, and 4 compliance demonstration requirements.
63.7540(a)(12)-(13)	Tune-up frequency.
63.7505(c)	Emission limitation compliance demonstration options.
63.7510(a) except (a)(2)(i)-(iii)	Initial compliance requirements for performance testing.
63.7510(b)	Initial fuel analysis requirements HCL, mercury, or TSM emission limits.
63.7510(c)	Initial performance test requirements for CO limit.
63.7510(d)	Initial performance test requirements for PM limit.
63.7510(e)	Initial compliance demonstration schedule and requirements for existing sources.
63.7515(a)	Subsequent performance test schedule.
63.7515(b)	Every third year performance test option.
63.7515(c)	Annual performance test requirement.

63.7515(e)	Monthly fuel analysis requirement.
63.7515(i)	CO CEMs in lieu of CO compliance testing.
63.7520(a)-(f)	Performance test requirements.
63.7521(a)	Fuel analysis procedures.
63.7530(a)-(b)(4) except (b)(4)(i), (ii), (iv), (v), (vi), and (viii)	Initial compliance demonstration for emission limits through performance test, fuel analysis, and establishing operating limits.
63.7530(c)	Fuel analysis requirements and emission rate calculations
63.7533(a)-(c) and (e)-(f).	Compliance with alternative equivalent out-put limits listed in Table 2 with the use of credit for implementing energy conservation measures identified in an energy assessment.
63.7540(a)(3)	HCL compliance demonstration through fuel analysis.
63.7540(a)(4)	HCL compliance demonstration through performance testing.
63.7540(a)(5)	Mercury compliance demonstration through fuel analysis.
63.7540(a)(6)	Mercury compliance demonstration through performance testing.
63.7540(a)(16)	TSM compliance demonstration through performance testing.
63.7540(a)(17)	TSM compliance demonstration through fuel analysis.

- (2) Compliance with the emission limitations and/or control requirement in section b)(1) of these terms and conditions shall be determined in accordance with the following methods:



a. Emission Limitation:

PM₁₀ emissions shall not exceed 0.042 lb/MMBtu of actual heat input; as a 3-hour average.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation shall be demonstrated based upon the applicable emission tests for this emission limitation specified in f)(3).

b. Emission Limitation:

Sulfur dioxide emissions shall not exceed 3.2 lbs/MMBtu of actual heat input, as a 3-hour average.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation shall be demonstrated based upon the applicable emission tests for this emission limitation specified in f)(3).

c. Emission Limitation:

Nitrogen oxide emissions shall not exceed 0.59 lb/MMBtu of actual heat input, as a 3-hour average.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation shall be demonstrated based upon the applicable emission tests for this emission limitation specified in f)(3).

d. Emission Limitation:

Carbon monoxide emissions shall not exceed 0.89 lb/MMBtu of actual heat input, as a 3-hour average.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation shall be demonstrated based upon the applicable emission tests for this emission limitation specified in f)(3).

e. Emission Limitation:

Volatile organic compounds emissions shall not exceed 0.051 lb/MMBtu of actual heat input, as a 3-hour average.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation shall be demonstrated based upon the applicable emission tests for this emission limitation specified in f)(3).



f. Emission Limitation:

H₂SO₄ emissions shall not exceed 0.16 lb/MMBtu of actual heat input, as a 3-hour average.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation shall be demonstrated based upon the applicable emission tests for this emission limitation specified in f)(3).

g. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

h. Emission Limitation:

Sulfur dioxide emissions shall not exceed 1.6 lbs per MMBtu of actual heat input when burning #2 fuel oil in the emissions unit.

Applicable Compliance Method:

Compliance may be determined based upon the records required pursuant to sections d) above.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 or 6A.

i. Emission Limitation:

The tons of emissions per rolling, 12-month period shall not exceed:

PM₁₀ – 73.6;

Sulfur dioxide – 5,606.4

Nitrogen oxide – 1,033.7;

Carbon monoxide – 1,559.3;

Volatile organic compounds – 89.4; and

H₂SO₄ – 280.3.



Applicable Compliance Method:

Compliance with the annual emission limitations shall be demonstrated by the record keeping requirements specified in section d) and the associated emission factors.

j. Emission Limitation:

Carbon monoxide emissions during periods of startup/shut down shall not exceed 3.75 lbs/MMBtu of actual heat input, as an 8-hour block average.

Applicable Compliance Method:

If required, carbon monoxide emissions shall be determined according to test Methods 1 - 4 and 10 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

Per 63.7515(i), certified CO CEMS data may be used in lieu of CO compliance testing for this emission limitation.

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

- a. The emissions testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.
- b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PM₁₀, sulfur dioxide, nitrogen oxide, carbon monoxide, volatile organic compounds and H₂SO₄.
- c. The emissions testing shall be conducted in accordance with the following:

for PM₁₀: Methods 201 and 202 of 40 CFR Part 51, Appendix M;

for SO₂: Methods 1 - 4 and 6 of 40 CFR Part 60, Appendix A;

for NO_x: Methods 1 - 4 and 7E of 40 CFR Part 60, Appendix A;

for CO: Methods 1 - 4 and 10 of 40 CFR Part 60, Appendix A;

for VOC: Methods 1 - 4 and 25 of 40 CFR Part 60, Appendix A;

for H₂SO₄: Methods 1 - 4 and 8A of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.



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P. H. Glatfelter Company - Chillicothe Facility

Permit Number: P0118906

Facility ID: 0671010028

Effective Date: To be entered upon final issuance

- d. The emissions testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Southeast District Office.
 - e. Not later than 30 days prior to the proposed test dates, the permittee shall submit an "Intent to Test" notification to the Ohio EPA Southeast District Office. 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 persons 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 Southeast District Office's refusal to accept the results of the emission tests.
 - f. Personnel from the Ohio EPA Southeast District Office shall be permitted to witness the tests, 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 from the emissions unit and/or the performance of the control equipment.
 - g. A comprehensive written report on the results of the emission tests shall be submitted to the Ohio EPA Southeast District Office within one month following completion of the tests. The permittee may obtain additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Southeast District Office.
- g) Miscellaneous Requirements
- (1) None.