



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

April 26, 2016

CERTIFIED MAIL

Calvin Stuart Jr.
Vice President of Manufacturing
Speciality Papers Business Unit
P.H. Glatfelter Company
232 East Eight Street
Chillicothe, Ohio 45601

Re: Final Findings and Orders for violations of
air pollution regulations at 232 East Eight
Street in Chillicothe, Ohio.

Dear Mr. Stuart:

Transmitted herewith are the Final Findings and Orders ("Orders") of the Director of Ohio EPA concerning the above-referenced matter.

Please note that the effective date of the Orders is the date that the Orders were entered into the Ohio EPA Director's journal, which is the date that is stamped on the first page of the Orders.

Sincerely,

A handwritten signature in black ink, appearing to read "James Kavalec", is written over a horizontal line.

James Kavalec, Manager
Compliance/Enforcement Section
Division of Air Pollution Control

ec: James Lee, PIC
John Paulian/Patty Porter, DAPC
Drew Bergman, Legal Office
Melisa Witherspoon/Christina Wieg, DAPC-SEDO

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OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

P.H. Glatfelter Company
232 East Eighth Street
Chillicothe, OH 45601

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:
:

Director's Final Findings
and Orders

I certify this to be a true and accurate copy of the
official documents as filed in the records of the Ohio
Environmental Protection Agency.

PREAMBLE

It is agreed by the parties hereto as follows:

I. JURISDICTION

By: [Signature] Date: 4-26-16

These Director's Final Findings and Orders ("Orders") are issued to P. H. Glatfelter Company ("Respondent") pursuant to the authority vested in Director of the Ohio Environmental Protection Agency ("Ohio EPA") under Ohio Revised Code ("ORC") §§ 3704.03 and 3745.01.

II. PARTIES BOUND

These Orders shall apply to and be binding upon Respondent and successors in interest liable under Ohio law. No change in ownership of Respondent or of the facility (as hereinafter defined) shall in any way alter Respondent's obligations under these Orders

III. DEFINITIONS

Unless otherwise stated, all terms used in these Orders shall have the same meaning as defined in ORC Chapter 3704 and the rules promulgated thereunder.

IV. FINDINGS AND DETERMINATIONS

The Director of Ohio EPA makes the following findings and determinations:

1. Respondent owns and operates a kraft paper mill ("facility") located at 232 East Eighth Street, Chillicothe, Ohio (Ohio EPA Facility ID #0671010028). At the facility, Respondent operates a chemical wood pulping process.

2. The emissions units associated with the facility emit, among other pollutants, volatile organic compounds ("VOCs") and hazardous air pollutants ("HAPs"), as defined in Ohio Administrative Code ("OAC") Rules 3745-21-01(B)(16) and 3745-77-01(W), respectively. Non-condensable gases ("NCGs") in the form of methanol and

total reduced sulfur ("**TRS**") gases are released as a byproduct of the wood pulping process. The TRS gases are mainly comprised of compounds such as hydrogen sulfide, methyl mercaptan, dimethyl sulfide and dimethyl disulfide. The NCGs are collected by either the low volume, high concentration ("**LVHC**") collection system or the high volume, low concentration ("**HVLC**") collection system and transported to control devices. The LVHC and HVLC systems at the facility emit TRS gases, as defined in OAC Rule 3745-73-01(K). VOCs, HAPs, NCGs, and TRS gases are defined as "air pollutants" or "air contaminants" in OAC Rule 3745-15-01(C).

3. OAC rule 3745-15-07(B) states that "the emission or escape into the open air from any source or sources whatsoever that is subject to regulation under Chapter 3745-17, 3745-18, 3745-21, or 3745-31 of the Administrative Code and is operated in such manner to emit such amounts of odor as to endanger the health, safety, or welfare of the public, or cause unreasonable injury or damage to property, is hereby found and declared to be a public nuisance. It shall be unlawful for any person to cause, permit or maintain any such public nuisance." Respondent is subject to regulation under OAC Chapters 3745-17, 3745-18, 3745-21 and 3745-31.

4. ORC § 3704.05(G) prohibits any person from violating any order, rule, or determination of the director issued, adopted, or made under OAC 3704. OAC Chapter 3745-15 was adopted under the authority of ORC § 3704.

Cause, permit or maintain public nuisance:

5. On at least October 31, 2014, December 16, 2014, January 7 and 8, 2015, and February 27, 2015, Respondent reported upset conditions at its facility.

6. From August 2014 through June 2015, Ohio EPA received approximately 110 complaints regarding "strong paper mill" odors. Some of the complaints correspond to the upset conditions reported to Ohio EPA by Respondent; some might correspond to other possible upset conditions that have not been reported as such by Respondent, normal conditions at the facility, or other industrial activities in the surrounding area. Many of the complaints describe health effects such as scratchy and burning eyes; general irritation of eyes, throat and nose; and nausea. Exposure to several of the air pollutants emitted by the facility, and released during the upset conditions, is known to cause health effects including the ones described by several of the complainants. The number of odor and health effect complaints increased after the subject upset conditions were reported.

7. Dispersion modeling conducted by Ohio EPA using onsite meteorological conditions, stack parameters, emission rate data, and chemical compounds provided by Respondent for the October 31, 2014 and January 7 and 8, 2015 events indicate that the upset conditions released several air pollutants which had the potential to immediately endanger the health, safety or welfare of the public. Additionally, the modelling predicted that the olfactory threshold levels of TRS for human beings were

exceeded in certain locations.

8. The olfactory thresholds of TRS compounds for human beings (including those emitted by Respondent), are extremely low.

9. Based upon the odor and health effects complaints, the results of Ohio EPA dispersion modelling, and the known nature (i.e., potential to cause adverse health effects in exposed populations and the extremely low odor detection thresholds) of pollutants associated with kraft paper mills, Ohio EPA determined the source of the odors was Respondent. Additionally, based on Ohio EPA's dispersion modelling results, Ohio EPA determined Respondent's releases of hydrogen sulfide, methyl mercaptan, dimethyl sulfide and dimethyl disulfide emissions during the October 31, 2014 upset event and releases of hydrogen sulfide and methyl mercaptan during the January 7 and 8, 2015 upset events endangered or tended to endanger the health, or safety or welfare of the public. Also, air monitoring results from Ohio EPA's one minute "grab" sample collected at 4:22 p.m., on January 20, 2015, indicate that the concentration of hydrogen sulfide had the potential to exceed the U.S. EPA recommended Emergency Response Planning Guidelines Tier 1 ("ERPG-1") level developed by the Emergency Response Planning committee of the American Industrial Hygiene Association. Based upon all the information outlined herein, the Director has determined that Respondent caused and is causing a public nuisance under OAC Rule 3745-15-07, in violation of ORC § 3704.05(G). By letter dated February 4, 2015, Ohio EPA notified Respondent of the public nuisance violation.

10. In accordance with OAC Rule 3745-15-06(C), the director has evaluated Respondent's reports relating to the upset conditions. Due to the number and nature of the upsets, the Director has determined that these conditions were avoidable. OAC Rule 3745-15-06(D) allows the director to require the owner or operator of the subject equipment to prepare, submit and implement a preventive maintenance and malfunction abatement plan for his approval. The plan is to be designed to prevent, detect and correct upsets or equipment failures which could result in emissions exceeding any applicable law including, but not limited to, causing a public nuisance.

11. The Director has given consideration to, and based his determination on, evidence relating to the technical feasibility and economic reasonableness of complying with the following Orders and the benefits to the people of the State to be derived from such compliance.

V. ORDERS

The Director hereby issues the following Orders:

1. Within ninety (90) days after the effective date of these Orders, Respondent shall complete and submit for Ohio EPA's review and approval an

engineering study of equipment and operations that produce, capture and control NCGs and/or TRS gases including, but not limited to, lagoons, storage and process tanks, digesters, evaporators, pulp washing and stripper systems, the LVHC and HVLC collection systems, the lime kiln, and the thermal oxidizer. The study shall include the following:

Odor Abatement Plan

- Identify and describe process and/or control equipment failures, breakdowns, and/or incidents, including those that have occurred or could occur during normal operations, which have caused or have the potential to cause odor in the ambient air.
 - identify and describe potential odor-causing chemical compounds and their known human olfactory odor thresholds and irritation and health effect concentrations;
 - identify and describe the technological scenarios and/or conditions that cause or have the potential to cause odor in the ambient air;
 - evaluate potential technologically and economically feasible measures available to reduce, eliminate and/or prevent the release of odorous chemicals into the ambient air; and
 - develop a schedule to address odor issues, identified in the odor abatement plan, at the facility.

Emergency Response Protocol

- Identify process and control equipment failures, breakdowns, and/or incidents, including those that have occurred during normal operations, and associated release action threshold levels (e.g., amount of pollutant per unit of time), where the release of TRS gases, NCGs or other air pollutants have the potential to impact ambient air at a level where public health, safety and/or the environment may be endangered or degraded.
 - develop response procedures to address different scenarios where TRS gas and NCG releases or other identified air pollution releases have the potential to exceed the established release action threshold levels. The response procedures shall identify necessary resources to quickly and effectively respond to each scenario and shall assure that responsible personnel are identified and properly trained to minimize the impact of each scenario where the release of TRS gases, NCG or other identified air pollution has the potential to exceed its release action threshold level;

- be updated within thirty (30) days of any newly identified incident that did or could potentially release any chemical above an action threshold level or when processes at the facility change; and
- be maintained at the facility and made available for review and copying upon request by any representative of the Ohio EPA for a period of five (5) years from the date of the last update.

Preventative Maintenance Plan

- Develop a written preventive maintenance program for process and/or control equipment, including that which has failed, broken down and/or experienced an incident resulting in the release of TRS gases and/or NCG. The program shall include the following:
 - identification of equipment and systems to which the program applies;
 - periodic inspections of identified equipment and systems;
 - periodic testing of equipment and systems;
 - appropriate adjustment, repair, or replacement of parts schedules; and
 - a system for keeping records of the preventive maintenance activities, inspections and test results, calibration dates, repairs, replacement, and adjustments to the applicable equipment.

2. The Respondent shall establish and operate a hydrogen sulfide on-site monitoring program at the fence line of the facility at its own cost, and shall pay the monthly data hosting and monitoring fees for a period of twelve (12) months from commencement of monitoring in accordance with the plan described below. The number and location of monitoring sites shall be based on accepted modeling practice and shall adequately monitor for background concentration and areas of maximum predicted concentrations resulting from facility emissions. Determination of the sampling locations, equipment and frequency of sample collection shall be coordinated with, and subject to the prior approval of, the Ohio EPA. Within sixty (60) days after the effective date of these Orders, Respondent shall submit a plan describing the proposed monitoring network, which shall incorporate the existing meteorological tower owned by Respondent provided the tower measures standard meteorological data (wind direction, wind speed, temperature, and sigma theta). The monitoring plan will require written approval of Ohio EPA. After written approval from Ohio EPA, Respondent shall install, implement and operate the monitoring program in accordance with the approved plan. Respondent shall continuously collect appropriate data for a period of time lasting one

year from the date of the operation of the monitoring system. Results of all monitoring from a period of twenty-four (24) hours before and after each "verified complaint" as defined under the Complaint and Response Plan submitted pursuant to Section V.3 below shall be submitted to the Ohio EPA's Southeast District Office. Monitoring results shall be provided to Ohio EPA as soon as practical, not to exceed forty-eight (48) hours after the complaint verification by Respondent or notification by Ohio EPA. Ohio EPA may also request additional data be submitted if it receives complaints it considers reasonably related to Respondent's operations, and Respondent shall not refuse any reasonable request for such data. All monitoring data shall be maintained at the facility and made available for review and copying upon request for a period of five (5) years from the date of the record. If, after the twelve (12) month initial period of monitoring, the Director of Ohio EPA believes continued monitoring to be warranted pursuant to his authority under ORC section 3704.03(I), the parties will negotiate in good faith for a continuation of monitoring, provided that the conditions in that statutory provision are met.

3. No later than sixty (60) days from the effective date of these orders, Respondent shall submit for Ohio EPA's review and approval a written Complaint and Response Plan with procedures to assess odors emitted by the facility and to record and investigate complaints of an odor event. The plan shall be implemented as directed in Ohio EPA's approved plan. The plan shall include:

- an evaluation by a third party consultant of methods that feasibly may be used to detect odors, the scale or other means of determining the odor's intensity, and descriptive odor characteristics.;
- a reliable, easily accessible complaint and response system with publicized telephone numbers and/or a hotline and a dedicated website, where citizens can easily notify Respondent of perceived odor events;
- procedures to record odor complaints received;
- methods that will be used to investigate and verify the complaint;
- methods to notify SEDO of all complaints that Glatfelter has verified within twelve (12) hours of verification, or of an event where three (3) or more complaints have been received by Glatfelter within a forty-eight (48) hour period;
- procedures to timely investigate the causes or possible causes of verified facility odor complaints; and
- methods to record the results of the investigation used to identify the cause of the odor and any corrective actions taken to eliminate the odor or reasons why no action was taken.

4. Within sixty (60) days of Ohio EPA's approval of the Complaint and Response Plan, Respondent shall meet with the general public to educate the community on any approved methods used to detect odors, the scale or other means of determining the intensity and characteristics of the odors, and potential health effects of the chemical compounds emitted or potentially emitted by Respondent, and how perceived odor events will be reported and investigated. Respondent shall also conduct regularly scheduled meetings with the general public, at least once a quarter and at a time and place convenient for the general public, to gather feedback on odors at the facility and to provide written and oral guidance on methods to minimize exposure during potential odor events. Respondent shall publicize the locations, dates and time of each meeting in a local newspaper of general circulation and provide Ohio EPA prior notification of each meeting. With written approval from Ohio EPA, Respondent may discontinue the regularly scheduled meetings, and such approval shall be granted if there have not been more than five (5) "verified complaints" as defined under the Complaint and Response Plan submitted pursuant to section V.3 above for a period of twelve (12) months.

5. Within sixty (60) days of the effective date of these Orders, Respondent shall develop and implement written procedures to assure that the failure, breakdown, or any incident related to process or control equipment is timely and completely reported to the proper agency. The procedures shall identify the names of persons responsible for the reporting, what is required to be reported, when the information is required to be reported, how it will be reported, and to whom it will be reported. This includes, but not limited to, procedures that assure any notice of a "malfunction" will comply with the requirements of OAC Rule 3745-15-06.

6. Respondent may request that adjustments be made to the requirements in these Orders by submitting written justification for the Director's approval. The Director will provide written partial or full approval or denial of the request within sixty (60) days of its receipt and the adjustments shall be effective on the date entered in the journal of the Director. If the Director fails to act upon such a request within sixty (60) days, the adjustment will be deemed approved until and unless the Director issues a written denial.

7. All plans, reports, records, studies, analysis or other items required herein shall be implemented and maintained at the facility for a period of five (5) years, unless otherwise specified herein or required by regulation or a permit, and shall be made available for inspection and copying upon request by any representative of the Ohio EPA.

8. No requirement contained herein shall be construed to allow noncompliance or to supersede Respondent's responsibility to comply with federal, state or local laws and/or regulations.

9. Existing plans, reports, records, analyses or other items required herein may be updated, modified or submitted as-is for approval in lieu of developing new plans, reports, records, analyses or other items required provided all specified requirements are addressed and satisfied.

VI. TERMINATION

Respondent's obligations under these Orders shall terminate when Respondent certifies in writing and demonstrates to the satisfaction of Ohio EPA that Respondent has performed all obligations under these Orders and the Chief of Ohio EPA's Division of Air Pollution Control acknowledges, in writing, the termination of these Orders. If Ohio EPA does not agree that all obligations have been performed, then Ohio EPA will notify Respondent of the obligations that have not been performed, and provide a specific list of items or issues it believes are not resolved within sixty (60) days, in which case Respondent shall have an opportunity to address any such deficiencies and seek termination as described above.

The certification shall be signed by Respondent and contain the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

This certification shall be signed by a responsible official of Respondent and submitted by Respondent to Ohio EPA. For the purposes of these Orders, a responsible official is a principal executive officer of at least the level of vice president, or his duly authorized representative.

VII. OTHER CLAIMS

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a party to these Orders, for any liability arising from, or related to, the operation of Respondent's facility.

VIII. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state and federal laws and regulations. These Orders do not waive or compromise the applicability and enforcement of any other statutes or regulations applicable to Respondent.

IX. MODIFICATIONS

These Orders may be modified by agreement of the parties hereto. Modifications shall be in writing and shall be effective on the date entered in the journal of the Director

of Ohio EPA.

X. NOTICE

Except as otherwise provided in these Orders, all documents required to be submitted by Respondent pursuant to these Orders shall be addressed to:

Ohio Environmental Protection Agency
Southeast District Office
2195 Front St
Logan, OH 43138
Attention: Melisa Witherspoon

and to:

Ohio Environmental Protection Agency
Lazarus Government Center
Division of Air Pollution Control
P.O. Box 1049
Columbus, Ohio 43216-1049
Attention: James Kavalec; Manager, Enforcement Section

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

XI. RESERVATION OF RIGHTS

Ohio EPA and Respondent each reserve all rights, privileges and causes of action, except as specifically waived in Section XII of these Orders.

XII. WAIVER

In order to resolve disputed claims, without admission of fact, violation or liability, and in lieu of further enforcement action by Ohio EPA for only the violations specifically cited in these Orders, Respondent consents to the issuance of these Orders and agrees to comply with these Orders. Respondent's agreement shall not be deemed an acceptance or agreement with the Ohio EPA's recitation of facts or conclusions of law. Furthermore, pursuant to ORC § 3704.09, the findings and determinations set forth in Section IV shall not be used as evidence in civil actions nor create any presumption of law or finding of fact which shall inure to or be for the benefit of any person other than the State.

Compliance with these Orders shall be a full accord and satisfaction for the Respondent's liability for any of the specific instances of equipment upsets at the facility

described in these Orders.

Respondent hereby waives the right to appeal the issuance, terms and conditions, and service of these Orders and Respondent hereby waives any and all rights Respondent may have to seek administrative or judicial review of these Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and Respondent agree that if these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, Respondent retains the right to intervene and participate in such appeal. In such an event, Respondent shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated, or modified.

XIII. EFFECTIVE DATE

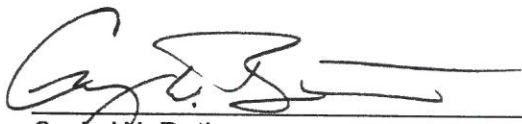
The effective date of these Orders is the date these Orders are entered into the Ohio EPA Director's journal.

XIV. SIGNATORY AUTHORITY

Each undersigned representative of a party to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such party to these Orders.

ORDERED AND AGREED:

Ohio Environmental Protection Agency



Craig W. Butler
Director

4/22/16
Date

AGREED:

P. H. Glatfelter Company

Calvin Staurot Jr.
Signature

12 April 2016
Date

Calvin STAUROT Jr.
Printed or Typed Name

Vice President of Manufacturing
Title Speciality Papers Business Unit