



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

8/5/2016

Certified Mail

Mr. Mike Flannery
3M Elyria
1301 Lowell Street
Elyria, OH 44035

Facility ID: 0247040822
Permit Number: P0116058
County: Lorain

RE: DRAFT AIR POLLUTION TITLE V PERMIT
Permit Type: Renewal

Dear Permit Holder:

A draft of the OAC Chapter 3745-77 Title V permit for the referenced facility has been issued. The purpose of this draft is to solicit public comments. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, The Chronicle Telegram. A copy of the public notice, the Statement of Basis, 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
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087

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 if a public hearing is scheduled. A decision on processing the Title V permit will be made after consideration of comments received and oral testimony if a public hearing is conducted. You will then be provided with a Preliminary Proposed Title V permit and another opportunity to comment prior to the 45-day Proposed Title V permit submittal to U.S. EPA Region 5. The permit will be issued final after U.S. EPA review is completed and no objections to the final issuance have been received. If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)963-1200.

Sincerely,

A handwritten signature in cursive script that reads "Michael E. Hopkins".

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

Cc: U.S. EPA Region 5 - Via E-Mail Notification
Ohio EPA-NEDO

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 Title V Permit Renewal

3M Elyria

1301 Lowell st., , Elyria, OH 44035-4864

ID#: P0116058

Date of Action: 8/5/2016

Permit Desc: Renewal of the Title V permit to operate for a synthetic sponge manufacturing plant..
The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitonline.aspx> by entering the ID # or: Edwin Perez, Ohio EPA DAPC, Northeast District Office, 2110 East Aurora Road, Twinsburg, OH 44087. Ph: (330)963-1200



Statement of Basis
 3M Elyria
Permit Number: P0116058
Facility ID: 0247040822

Statement of Basis For Air Pollution Title V Permit

Facility ID:	0247040822
Facility Name:	3M Elyria
Facility Description:	Synthetic Sponge manufacturing
Facility Address:	1301 Lowell Street, Elyria, OH 44035-4864
Permit #:	P0116058, Renewal
This facility is subject to Title V because it is major for: <input type="checkbox"/> Lead <input type="checkbox"/> Sulfur Dioxide <input type="checkbox"/> Carbon Monoxide <input checked="" type="checkbox"/> Volatile Organic Compounds <input type="checkbox"/> Nitrogen Oxides <input type="checkbox"/> Particulate Matter ≤ 10 microns <input checked="" type="checkbox"/> Single Hazardous Air Pollutant as carbon disulfide <input checked="" type="checkbox"/> Combined Hazardous Air Pollutants, as carbon disulfide and carbonyl sulfide <input checked="" type="checkbox"/> Maximum Available Control Technology Standard(s) <input type="checkbox"/> GHG <input type="checkbox"/> Title IV	

A. Standard Terms and Conditions

Has each insignificant emissions unit been reviewed to confirm it meets the definition in OAC rule 3745-77-01(U)?	Yes.
Were there any "common control" issues associated with this facility? If yes, provide a summary of those issues and explain how the DAPC decided to resolve them.	No. N/A.
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a minor permit modification per OAC rule 3745-77-08(C)(1)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a significant permit modification per OAC rule 3745-77-08(C)(3)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a reopening per OAC rule 3745-77-08(D)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document resulting from a renewal per OAC rule 3745-77-08(E)	P005 was shutdown and is excluded. The applicant reviewed exhaust gas test results and found that P011-P018 & P020-P023 have greater than insignificant levels of potential emissions. P011-P018 & P020-P023 are included in the permit.
Please identify the affected unit(s) and pollutant(s) for which a Compliance Assurance Monitoring (CAM) Plan is required per 40 CFR 64. Provide more emissions unit specific detail in Section C.	N/A – HAP emitting EUs are subject to a MACT, 40 CFR Part 63, Subpart UUUU.

B. Facility-Wide Terms and Conditions

Term and Condition (paragraph)	Basis		Comments
	SIP (3745-)	Other	
B.2.	31-05(A)(3)		Ohio Best Available Technology (BAT) requirements: identification of subject EUs, requirements for capture and control of VOC & H ₂ S facility-wide emissions.



B.3.	31-05(A)(3)		Ohio BAT ORs on capture and control equipment parameters.
B.4.	31-05(A)(3)		Ohio BAT M&R on capture and control equipment parameters, and VOC and H ₂ S concentrations in inlet & outlet streams for continuous monitoring of capture and control efficiencies.
B.5.	31-05(F)		Voluntary restriction -222.5 tons VOC/yr. & 9.95 tons H ₂ S emissions facility-wide. A review of previous PTIs concluded that the facility-wide limit on VOC emissions was voluntarily accepted to avoid major VOC source classification in an ozone non-attainment county instead of the Ohio BAT basis in previous permits. A facility-wide limit on H ₂ S emissions was also determined to be a voluntary restriction.
B.6.	31-05(F)		R - Records of monthly & annual, facility-wide VOC & H ₂ S emissions. This is a new requirement.
B.7.a)	31-05(A)(3)		Rp – deviations of Ohio BAT capture & control requirements.
B.7.b)	31-05(F)		Rp - annual, facility-wide VOC & H ₂ S emissions. This is a new requirement.
B.8.		40 CFR Part 63, Subpart UUUU	NESHAP for major sources of cellulose products mfg.: identification of subject EUs and industry classification.
B.9.a) - e)		40 CFR Part 63, Subpart UUUU	OR - Cellulose NESHAP for all emission limits & work practice requirements are included. B.9.e) identifies which requirements the permittee must comply with but is not limited to the specified requirements.
B.9.f) - h)		40 CFR Part 63, Subpart UUUU	OR - Cellulose NESHAP for all operating limits on control devices are included. B.9.g) identifies which requirements the permittee must comply with but is not limited to the specified requirements. B.9.h) states that an alternative program to monitor the conductivity of the biofilter system liquid effluent instead of pH was approved by U.S. EPA.
B.10.		40 CFR Part 63, Subpart UUUU	Cellulose NESHAP – General requirements regarding startup, shutdown and malfunction events.
B.11.		40 CFR Part 63, Subpart UUUU	M - Cellulose NESHAP.
B.12.a) & b)		40 CFR Part 63, Subpart UUUU	M - Cellulose NESHAP continuous compliance requirements for emission limits and work practices. B.12.b) identifies which requirements the permittee must comply with but is not limited to the specified requirements.
B.12.c) through f)		40 CFR Part 63, Subpart UUUU	M - Cellulose NESHAP continuous compliance requirements for control device(s)' operating limits. B.12.d) identifies which requirements the permittee must comply with but is not limited to the specified requirements.
B.13.a) & b)		40 CFR Part 63, Subpart UUUU	R - Cellulose NESHAP notifications & recordkeeping. B.13.b) identifies which requirements the permittee must comply with but is not limited to the specified requirements.
B.14.a) - g)		40 CFR Part 63, Subpart UUUU	Rp - Cellulose NESHAP in B.14.b) identifies which requirements the permittee must comply with but is not limited to the specified requirements.
B.15.a) & b)		40 CFR Part 63	The applicable general requirements of 40 CFR Part 63, Subpart A as specified in 40 CFR Part 63, Subpart UUUU.
B.16.a)	31-05(A)(3)		Compliance method for the capture of VOC & H ₂ S facility-wide emissions.
B.16.b)		40 CFR Part 63, Subpart UUUU	Compliance method for the capture and control of facility-wide HAP emissions. The language was previously in the MACT rule applicable emissions limitations & control measures term B.6.
B.16.c)	31-05(A)(3)		Compliance method for the control of facility-wide VOC emissions.
B.16.d)	31-05(F)		Compliance method cites R requirements. This is a new permit term.
B.16.e)		40 CFR Part 63, Subpart	Compliance method for the control of facility-wide sulfide emissions.



		UUUU	
B.16.f)		40 CFR Part 63, Subpart UUUU	Compliance method for the control of carbon disulfide emissions from carbon disulfide unloading and storage. This is a new permit term.
B.17.	31-05(A)(3)		ET = B.17.b)(1)-(4) compliance demonstration with OAC rule 3745-31-05(A)(3) requirements.
B.17.		40 CFR Part 63, Subpart UUUU	ET = B.17.b)(5) compliance demonstration with 40 CFR Part 63, Subpart UUUU requirements.
B.18.	31-05(A)(3)		Applicant proposed to collect data on the backup scrubber pH in order to determine the optimum range or minimum/maximum operating restriction. This is a new permit term.
B.19. - B.21.		40 CFR Part 63, Subpart DDDDD	NESHAP for major HAP sources with industrial, institutional and commercial boilers and process heaters. This is a new permit term.
B.22.	77-07(A)(13)		Identification of insignificant EUs which are subject to Permit to Install requirements.
B.23	21-07		Misc. = Clarifying statement that overall VOC emissions control requirements of OAC rule 3745-21-07(M)(2) for P020 & P021 are more stringent than the OAC rule 3745-31-05(A)(3) requirements for facility-wide emissions from P001-P004, P007-P017 and P020-P023.

C. Emissions Unit Terms and Conditions

Key: EU = emissions unit ID	R = record keeping requirements
ND = negative declaration (i.e., term that indicates that a particular rule(s) is (are) not applicable to a specific emissions unit)	Rp = reporting requirements
OR = operational restriction	ET = emission testing requirements (not including compliance method terms)
M = monitoring requirements	St = streamlining term used to replace a PTI monitoring, record keeping, or reporting requirement with an equivalent or more stringent requirement
ENF = did noncompliance issues drive the monitoring requirements?	Misc = miscellaneous requirement



EU(s)	Limitation	Basis		ND	OR	M	ENF	R	Rp	ET	St	Misc	Comments
		SIP (3745-)	Other										
P001-P004 and P007-P010	OC emissions control	21-07(M)(3)(d), (d)(i) & (d)(iii)		X									Terms C.1.b)(1)a., C.6.b)(1)a. and C.7.b)(1)a. - These EUs are exempt from paragraphs (M)(3)(a) & (b) requirements provided the organic compound (OC) emissions are controlled by a biofiltration or backup scrubber system, which is maintained per OAC rule 3745-31-05(A)(3) requirements.
P011-P017, P022 and P023	OC emissions control	21-07(M)(3)(c)(ii)		X									Terms C.4.b)(1)a., C.5.b)(1)a. and C.8.b)(1)a. - These EUs are not subject to the requirements of paragraphs (M)(3)(a) and (M)(3)(b) of this rule because each one has an uncontrolled potential to emit for OC emissions that does not exceed 40 lbs./day.
P020 & P021	85%, by weight, overall control of OC emissions	OAC rule 3745-21-07(M)(2)			X	X		X	X	X			Term C.9.b)(1)a. cites B.2.c) to vent VOC emissions to a biofiltration system. M = term C.9.d)(1) cites B.4.c) through B.4.e) cited to monitor VOC concentration in inlet and outlet of control systems; and monitor control systems operating parameters. R= term C.9.d)(1) cites B.4.f) to record control system operating parameter deviations and corrective actions. Rp = term C.9.e)(1) cites B.7.a), B.7.a)(2), B.7.a)(3), and B.7.a)(5) through (7). Et = term C.9.f)(2) requires a performance test of the control system to demonstrate compliance with the 85% overall control of OC emissions.
P001-P004, P007-P017 & P020-P023	Various lb./hr. & ton/yr. limits for VOC & H ₂ S emissions	31-05(A)(3)			X	X		X	X				Terms C.1.b)(1)b., C.2.b)(1)b., and C.4.b)(1)b. through C.9.b)(1)b. cite B.2.b) through e) cited to employ capture & control systems. OR = terms C.1.c)(1), C.2.c)(1), and C.4.c)(1) through C.9.c)(1) cite B.3.a) through c). to operate capture & control systems. M = terms C.1.d)(1), C.2.d)(1), C.4.d)(1) through C.8.d)(1) and term C.9.d)(2) cite B.4. for the following requirements: enclosure flow direction; enclosure fan operation; biofiltration system inlet & outlet VOC concentrations; and biofiltration system & backup scrubber op. parameters. See B.4.a) through e). R = terms C.1.d)(1), C.2.d)(1), C.4.d)(1) through C.8.d)(1) and C.9.d)(2) cite B.4. for biofiltration system & backup scrubber op. parameters deviations & corrective actions. See B.4.f) Rp = terms C.1.e)(1), C.2.e)(1), and C.4.e)(1) through C.8.e)(1) and C.9.e)(2) cite B.7.a) and B.7.a)(1) through (7) for deviations & corrective actions of: enclosure flow direction; enclosure fan operation; not venting emissions to biofiltration system or backup scrubber; days when VOC emissions capture was less than 85% as a daily average; days when VOC emissions removal efficiency from biofiltration/scrubber was less than 80% as 60-day average; and periods when biofiltration system & backup scrubber op. parameters were outside of the optimum range/limit. Terms C.1.f)(1), C.2.f)(1), and C.4.f)(1) through C.9.f)(1) – now specify calculations to estimate hourly emission rates of VOC & H ₂ S emissions based on exhaust test data. Misc. – C.1.g)(1), C.2.g)(1), and C.4.g)(1) through C.9.g)(1) state that the EUs were installed prior to August 3, 2006 and are not eligible for the Ohio Best Available Technology exemption (the less than 10 tons per year BAT exemption) per OAC paragraph 3745-31-05(A)(3)(a)(ii).
P001-P004, P007-P017 & P020-P023	222.5 tons VOC/yr. & 9.95 tons	31-05(F)						X	X				Terms C.1.b)(1)c., C.2.b)(1)c., and C.4.b)(1)c. through C.9.b)(1)c. cite B.5.a) and B.5.b) which limit the facility-wide VOC and H ₂ S emissions. R - terms C.1.d)(2), C.2.d)(2), C.4.d)(2) through C.8.d)(2) and C.9.d)(3) cite B.6. for records



EU(s)	Limitation	Basis		ND	OR	M	ENF	R	Rp	ET	St	Misc	Comments
		SIP (3745-)	Other										
	H ₂ S emissions facility-wide												of monthly & annual, facility-wide VOC & H ₂ S emissions. This is a new requirement. Rp - terms C.1.e)(2), C.2.e)(2), and C.4.e)(2) through C.8.e)(2) and C.9.e)(3) cite B.7.b), B.7.b)(1) and B.7.b)(2) for deviations of annual, facility-wide VOC and H ₂ S emission limits.
P001-P004, P007-P017 & P020-P023	See comments.		40 CFR Part 63, Subpart UUUU										Terms C.1.b)(1)d., C.2.b)(1)d., and C.4.b)(1)d. through C.9.b)(1)d. reference C.1.b)(2)a. & b., C.2.b)(2)a. & b., and C.4.b)(2)a. & b. through C.9.b)(2)a. & b. which cite B.9.a) through e) and B.9.f) through B.9.h) for facility-wide emission limits and work practice requirements and capture & control systems operating limits, respectively.
P001-P004, P007-P017 & P020-P023	See comment.		40 CFR 63.1-63.15										Terms C.1.b)(1)e., C.2.b)(1)e., and C.4.b)(1)e. through C.9.b)(1)e. cite Table 10 to 40 CFR Part 63, Subpart UUUU for the parts of the General Provisions of the MACT rules which are applicable.
P018	See comment.	-17-07(A)											Term C.3.b)(1)a. references additional best available control measures in term C.3.b)(2). The Ohio BAT requirement per OAC rule 3745-31-05(A)(3) is more stringent than the 20% opacity, as a 6-min. average limit on visible particulate emissions (PE) limit.
P018	See comment.	-17-11(B)(1)											Term C.3.b)(1)b. is a PE mass limit which is less stringent than the OAC rule 3745-31-05(A)(3) limit than the lb. PE/hr. limit in OAC rule 3745-17-11(B)(1).
P018	5% opacity as 6-min. average of visible PE	31-05(A)(3)				X		X	X				Term C.3.b)(1)b. requires best available control measures which include: a. pneumatic materials transfer to silo. If any visible PE are seen the transfer operation must be halted; and b. enclosed silo vent to exhaust to baghouse to eliminate fugitive dust. M – term C.3.d)(1) requires an observation of the egress during each tanker unloading. R – term C.3.d)(1) requires a record of observations and of corrective actions taken. Rp – term C.3.e)(1) semi-annual reports of days when any visible PE were observed and corrective actions taken.
P018	0.016 lb. PE/hr.	31-05(A)(3)				X		X	X				Term C.3.b)(1)b. requires best available control measures which include: a. pneumatic materials transfer to silo. If any visible PE are seen the transfer operation must be halted; and b. enclosed silo vent to exhaust to baghouse to eliminate fugitive dust. M – term C.3.d)(2) requires operation at baghouse manufacturer recommended range for the differential pressure drop, unless an alternative range is established during a performance test. R – term C.3.d)(3) requires a record of baghouse differential pressure during each tanker unloading and any corrective actions taken. Rp – term C.3.e)(2) quarterly reports of the following: periods when the pressure drop was outside of the recommended range; periods when process emissions were not vented to the baghouse; and any corrective actions taken. Term C.3.f)(1) – specifies calculations to estimate hourly PE rate. Misc. – Term C.3.g)(1) EU was installed prior to August 3, 2006 and is not eligible for the Ohio Best Available Technology exemption (the less than 10 tons per year BAT exemption) per OAC paragraph 3745-31-05(A)(3)(a)(ii).



DRAFT

**Division of Air Pollution Control
Title V Permit
for
3M Elyria**

Facility ID:	0247040822
Permit Number:	P0116058
Permit Type:	Renewal
Issued:	8/5/2016
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance



Division of Air Pollution Control
Title V Permit
for
3M Elyria

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Draft Title V Permit
3M Elyria
Permit Number: P0116058
Facility ID: 0247040822

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 0247040822
Facility Description: Synthetic Sponge manufacturing
Application Number(s): A0043358, A0049381, A0055801
Permit Number: P0116058
Permit Description: Renewal of the Title V permit to operate for a synthetic sponge manufacturing plant.
Permit Type: Renewal
Issue Date: 8/5/2016
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Superseded Permit Number: P0085332

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

3M Elyria
1301 Lowell st.
Elyria, OH 44035-4864

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

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087
(330)963-1200

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Northeast District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months and no later than 6 months prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director



Draft Title V Permit

3M Elyria

Permit Number: P0116058

Facility ID: 0247040822

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. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions
 - (2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions
 - (3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting For State-Only Requirements
 - (4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (5) Standard Term and Condition A. 30.

(Authority for term: ORC 3704.036(A))

2. 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 (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

- 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 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c) The permittee shall submit required reports in the following manner:

- (1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any submitted scheduled maintenancerequests, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the

probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be submitted promptly to the Ohio EPA DAPC, Northeast District Office. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted to the Ohio EPA DAPC, Northeast District Office by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally

enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

- (4) 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete." Signature by the Responsible Official may be represented by entry of the personal identification number (PIN) by the Responsible Official as part of the electronic submission process or by the scanned attestation document signed by the Responsible Official that is attached to the electronically submitted written report.

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

- (5) Consistent with A.2.c.1. above, reports of any required monitoring and/or record keeping information required to be submitted to Ohio EPA shall be submitted to Ohio EPA DAPC, Northeast District Office unless otherwise specified.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Reporting of Any Exceedence of a Federally Enforceable Emission Limitation or Control Requirement Resulting From Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

4. Risk Management Plans

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

- a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or
- b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

5. 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.

(Authority for term: OAC rule 3745-77-07(A)(5))

6. Severability Clause

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.

(Authority for term: OAC rule 3745-77-07(A)(6))

7. 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 reissuance, or modification, or for denial of a permit renewal application.
- 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 except as provided pursuant to A.16 below.
- c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.11 below. 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, reopening 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.
- f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:
 - (1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or
 - (2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or
 - (3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. 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.

(Authority for term: OAC rule 3745-77-07(A)(8))

9. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

10. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

12. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that 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, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))

13. Compliance Requirements

- a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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 paragraph (E) of OAC rule 3745-77-03.
 - (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, Northeast 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.
- d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the Ohio EPA DAPC, Northeast District Office) and the Administrator of the U.S. EPA in the following manner and with the following content:
 - (1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - (2) Compliance certifications shall include the following:
 - a. Identification of each term or condition that is the basis of the certification. The identification may include a statement by the Responsible Official that every term and condition that is federally enforceable has been reviewed, and such terms



and conditions with which there has been continuous compliance throughout the year are not separately identified.

- b. The permittee's current compliance status.
 - c. Whether compliance was continuous or intermittent consistent with A.13.d.2.a above.
 - d. The method(s) used for determining the compliance status of the source currently and over the required reporting period consistent with A.13.d.2.a above.
 - e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
- (3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

14. Permit Shield

- a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the Ohio EPA DAPC, Northeast District Office with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the Ohio EPA DAPC, Northeast District Office as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

16. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

(Authority for term: OAC rule 3745-77-07(G))

17. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.
- c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))

18. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Federal Register 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

Each IEU that is subject to one or more applicable requirements shall comply with those applicable requirements.

(Authority for term: OAC rule 3745-77-07(A)(1))

20. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-07(A)(1))

21. 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.

(Authority for term: OAC rule 3745-77-07(A)(1))

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the Responsible 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 Responsible Official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that 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 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

Unless otherwise exempted, no emissions unit identified in this permit that has been certified by the Responsible Official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- a) Persons operating appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.
- b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.
- c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or record keeping information shall be submitted to the Ohio EPA DAPC, Northeast District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northeast District Office. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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.)

25. Records Retention Requirements Under State Law Only

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.

26. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

(Authority for term: OAC rule 3745-77-07(C))

27. Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northeast District Office in accordance with paragraph (B) of 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 emissions unit(s) that is (are) served by such control system(s).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Northeast District Office must be notified in writing of any transfer of this permit.

(Authority for term: OAC rule 3745-77-01(C))

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

- a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or
- b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potential to emit; or
- c) where the company's Responsible Official has certified that an emissions unit has been permanently shut down.



Draft Title V Permit

3M Elyria

Permit Number: P0116058

Facility ID: 0247040822

Effective Date: To be entered upon final issuance

30. Submitting Documents Required by this Permit

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 Ohio EPA DAPC, Northeast District Office, 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 required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the Responsible Official may be represented as provided through procedures established in Air Services.



Draft Title V Permit

3M Elyria

Permit Number: P0116058

Facility ID: 0247040822

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. **OAC rule 3745-31-05(A)(3) - Ohio Best Available Technology (BAT) Requirements – The emissions units specified in B.2.a) are subject to the Ohio BAT requirements specified in B.2.b) through e) and B.3.a) through c):**

a) P001, P002, P003, P004, P007, P008, P009, P010, P011, P012, P013, P014, P015, P016, P017, P020, P021, P022 and P023.

b) The building enclosure serving the emissions unit(s) specified in B.2.a) shall be maintained under negative pressure as required by this permit whenever any of the emissions unit(s) is in operation and shall capture the volatile organic compound (VOC) emissions from these emissions unit(s).

c) The VOC emissions from the emissions unit(s) specified in B.2.a) shall be vented to a biofiltration system that shall meet the operational, monitoring, and record keeping requirements of this permit when one or more of the emissions units are in operation, except for P012, P013, P014, P015, P016 and P017 (the sponge mass production mixer nos. 2 through 7).

d) The permittee shall capture VOC and hydrogen sulfide (H₂S) emissions from the facility at a minimum of 85% and route them to the biofiltration control system.

This requirement is applicable to the backup scrubber only during periods when the permittee operates the backup scrubber to demonstrate compliance with an applicable emission standard.

e) The biofiltration system shall remove a minimum of 80 percent (%) of VOC emissions vented to it and the control efficiency determination shall be based on the arithmetic average of the preceding sixty (60) consecutive days' average removal efficiency.

This requirement is applicable to the backup scrubber only during periods when the permittee operates the backup scrubber to demonstrate compliance with an applicable emission standard.

[Authority for term: OAC rule 3745-31-05(A)(3)]

3. **OAC rule 3745-31-05(A)(3) - Ohio BAT Operational Restrictions**

a) The building enclosure shall be maintained under negative pressure whenever any of the emissions units specified in B.2.a) is in operation. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through “select” natural draft opening to be into the enclosure.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- b) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable air pollution control equipment parameters, that shall be maintained in order to demonstrate compliance during any period of time when any of the emissions unit(s) controlled by the biofiltration system is in operation are as follows:
- (1) The daily average gas temperature at the inlet of the biofiltration system that shall be maintained in order to demonstrate compliance, shall be within the range of 70 to 100 degrees Fahrenheit.
 - (2) The daily average acceptable pressure drop across the biofiltration system that shall be maintained in order to demonstrate compliance, shall be within the range of 1.2 to 14 inches of water.
 - (3) The daily average conductivity of the biofilter system discharge liquor that shall be maintained in order to ensure the sulfate concentration of each biofiltration system discharge liquor remains below 5 percent (%), shall be within the range of 60 to 130 millisiemens.

[Authority for term: OAC rule 3745-31-05(A)(3) and 40 CFR Part 63, Subpart UUUU]

- c) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range or limit for the following air pollution control equipment parameters that shall be maintained in order to demonstrate compliance during any period of time when any of the emissions unit(s) controlled by the backup scrubber system is in operation shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for each parameter is established to demonstrate compliance or until the permittee proposes an alternative range or limit based on data collection:
- (1) The daily average pressure drop across the scrubber; and
 - (2) The daily average scrubber liquid pH.

This requirement is applicable to the backup scrubber only during periods when the permittee operates the backup scrubber to demonstrate compliance with an applicable emission standard.

[Authority for term: OAC rule 3745-31-05(A)(3) and 40 CFR Part 63, Subpart UUUU]

4. **OAC rule 3745-31-05(A)(3) - Monitoring and Record Keeping Requirements**

- a) The permittee shall perform inspections on a once per 8-hr shift basis of the building enclosure to ensure that the following conditions are being maintained when any of the emissions unit(s) specified in B.2.a) is in operation:
- (1) the direction of air at each natural draft opening is inward, as shown by streamers, smoke tubes, tracer gases, and/or other air flow monitoring devices; and
 - (2) the operating status of the twin "biofilter" fans, which draw the captured exhaust gases to the biofiltration control system and the backup scrubber. A "biofilter" fan is located after the biofilter system and after the scrubber.

Records shall be maintained of the results of each inspection and shall include any corrective actions taken by the permittee.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- b) The permittee shall monitor the inlet concentrations of VOC and H₂S to the biofiltration system and to the plant ventilation stack during operation of any of the emissions units specified in B.2.a) including periods of startup and shutdown in order to determine the capture efficiency of VOC and H₂S emissions. The permittee shall record the VOC and H₂S concentrations on a once per 8-hr shift basis or a minimum of three sets of samples per day and analyze the samples with a gas chromatograph. The gas chromatograph shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.
- (1) The VOC and H₂S emissions capture efficiency shall be determined as specified in B.17.a) and recorded as a daily average for each day of operation.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- c) The permittee shall monitor the inlet and outlet concentrations of VOC of the biofiltration system during operation of any of the emissions units specified in B.2.a) including periods of startup and shutdown in order to determine the control efficiency of VOC emissions. The permittee shall record the VOC concentrations on a once per 8-hr shift basis or a minimum of three sets of samples per day and analyze the samples with a gas chromatograph. The gas chromatograph shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.
- (1) The VOC emissions control efficiency shall be determined as specified in B.16.c) and recorded as a daily average for each day of operation.
- (2) The VOC emissions removal efficiency, as a 60-day average, shall be determined and recorded each day.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- d) The permittee shall properly install, operate, and maintain equipment to continuously monitor the biofilter system parameters during operation of any of the emissions unit(s) specified in B.2.a), except for P012-P017, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The permittee shall record the biofilter system parameters on an hourly and as a daily average for each day of operation:
- (1) the gas temperature at the inlet of the biofiltration system, in Fahrenheit;
- (2) the pressure drop across the biofiltration system, in inches of water column; and
- (3) the conductivity of the biofilter system discharge liquor, in millisiemens (mS).

[Authority for term: OAC rule 3745-31-05(A)(3)]

- e) The permittee shall properly install, operate, and maintain equipment to continuously monitor the backup scrubber parameters during operation of any of the emissions unit(s) specified in B.2.a), except for P012-P017, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable backup scrubber parameters shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for each parameter is established to demonstrate compliance or until the permittee proposes an alternative range or limit based on data collection. The permittee shall record the following backup scrubber parameters on an hourly and as a daily average for each day of operation when the permittee operates the backup scrubber to demonstrate compliance with an applicable emission standard:

- (1) the pressure drop across the scrubber; and
- (2) the scrubber liquid pH.

If desired, a proposal for an alternative range or limit for air pollution capture and/or control equipment operating parameter(s) shall be submitted in accordance with the method(s) specified in B.18.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- f) Whenever the monitored value(s) for any biofilter system or backup scrubber parameter(s) deviates from the range(s) or minimum limit(s) established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- (1) the date and time the deviation began;
- (2) the magnitude of the deviation at that time;
- (3) the date the investigation was conducted;
- (4) the name(s) of the personnel who conducted the investigation; and
- (5) the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- (6) a description of the corrective action;
- (7) the date the corrective action was completed;
- (8) the date and time the deviation ended;

- (9) the total period of time (in minutes) during which there was a deviation;
- (10) the pressure drop, temperature, conductivity, flow rate, and/or pH readings immediately after the corrective action was implemented; and
- (11) the name(s) of the personnel who performed the work.

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

These range(s) and/or limit(s) for the biofilter system or backup scrubber parameter(s) are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted range or limit for the biofilter system and backup scrubber parameter(s) based upon information obtained during future performance tests or data collection that demonstrate compliance with the allowable VOC and H₂S emissions rates for these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-31-05(A)(3)]

5. OAC rule 3745-31-05(F) – Voluntary Restrictions to Limit Potential Emissions

- a) The emissions of VOC shall not exceed 222.5 tons/year from the facility.

[Authority for term: OAC rule 3745-31-05(F)]

- b) The emissions of H₂S shall not exceed 9.95 tons/year from the facility.

[Authority for term: OAC rule 3745-31-05(F)]

6. OAC rule 3745-31-05(F) - Monitoring and Record Keeping Requirements

- a) The permittee shall maintain monthly records of the following information:

- (1) the VOC emission rate from the facility for each month of operations; and
- (2) the H₂S emission rate from the facility for each month of operation.

[Authority for term: OAC rule 3745-31-05(F)]

- b) The permittee shall maintain annual records of the following:

- (1) the VOC emission rate from the facility for each calendar year; and
- (2) the H₂S emission rate from the facility for each calendar year.

[Authority for term: OAC rule 3745-31-05(F)]

7. OAC rule 3745-31-05(A)(3) and OAC rule 3745-31-05(F) Reporting Requirements

- a) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- (1) all periods of time during which the air flow indicating strips or other flow indicating device, at any natural draft opening, showed no air flow or air flow in a direction leaving the enclosure whenever any emissions unit specified in B.2.a) operated;
 - (2) any period of time (start time and date, and end time and date) when any emissions unit(s) specified in B.2.a), except for P012 through P017, was in operation and the process emissions were not vented to the biofiltraton system;
 - (3) any period of time (start time and date, and end time and date) when any emissions unit(s) specified in B.2.a), except for P012 through P017, was in operation when the biofiltration system was not in operation and the process emissions were not vented to the backup scrubber;
 - (4) each day when the daily average VOC capture efficiency of the biofiltration system was less than 85 percent (%) and the actual average VOC capture efficiency during the deviation period;
 - (5) each sixty (60) day period when the average VOC removal efficiency from the biofiltration system was less than 80 percent (%) and the actual 60-day average VOC removal efficiency for each deviation period;
 - (6) each period of time (start time and date, and end time and date) when any emissions unit(s) specified in B.2.a), except for P012 through P017, was in operation and any of the average daily biofilter system parameter(s) specified in B.3.b) was outside of the acceptable range; and
 - (7) each period of time (start time and date, and end time and date) when any emissions unit(s) specified in B.2.a), except for P012 through P017, was in operation and any of the average daily backup scrubber parameter(s) specified in B.3.c) was outside of the acceptable range when the permittee operates the backup scrubber to demonstrate compliance with an applicable emission standard.

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

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.

[Authority for term: OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C) and OAC rule 3745-31-05(A)(3)]

- b) The permittee shall submit annual deviation (excursion) reports that identify the following:
- (1) all exceedances of the annual, facility-wide emission limitation for VOC and the actual VOC emissions from the facility during the calendar year; and



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- (2) all exceedances of the annual, facility-wide emission limitation for H₂S and the actual H₂S emissions from the facility during the calendar year.

The reports shall be submitted annually by April 15 of each year and shall cover the previous calendar year.

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.

[Authority for term: OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C) and OAC rule 3745-31-05(F)]

- 8. **MACT Rule(s) Applicability - The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart UUUU (National Emission Standards for Hazardous Air Pollutants for Major Sources: Cellulose Products Manufacturing): P001, P002, P003, P004, P007, P008, P009, P010, P011, P012, P013, P014, P015, P016, P017, P020, P021, P022, P023, P024, P025, T001, T002, T003 and T004. The complete Maximum Achievable Control Technology (MACT) requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA, Northeast District Office.**

This facility has miscellaneous viscose processes which are existing, cellulosic sponge operation(s).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

- 9. **40 CFR Part 63, Subpart UUUU - Emissions Limitation(s) and Work Practice Standard(s) and Operating Limits**

- a) As required in 40 CFR §63.5505(a), the permittee must meet the appropriate emission limits and work practice standards in the following Table 1 to 40 CFR Part 63, Subpart UUUU:

For . . .	at . . .	you must . . .
1. the sum of all viscose process vents	a. each existing cellulose food casing operation	i. reduce total uncontrolled sulfide emissions (reported as carbon disulfide) by at least 25% based on a 6-month rolling average; ii. for each vent stream that you control using a control device, route the vent stream through a closed-vent system to the control device; and iii. comply with the work practice standard for closed-vent systems.
	b. each new cellulose food casing operation	i. reduce total uncontrolled sulfide emissions (reported as carbon disulfide) by at least 75% based on a 6-month rolling average; ii. for each vent stream that you control using a control device, route the vent stream through a closed-vent system to the control device; and iii. comply with the work practice standard for closed-vent systems.
	c. each existing rayon operation	i. reduce total uncontrolled sulfide emissions (reported as carbon disulfide) by at least 35% within 3 years after the effective date based on a 6-month rolling average; for each vent stream that you control using a control device, route the vent stream through a closed-vent system to the control device; and comply with the work practice standard for closed-vent systems; and ii. reduce total uncontrolled sulfide emissions (reported as carbon disulfide) by at least 40% within 8 years after the effective date based on a 6-month rolling average; for each vent stream that you control using a control device, route the vent stream through a closed-vent system to the control device; and comply with the work practice standard for closed-vent systems.
	d. each new rayon	i. reduce total uncontrolled sulfide emissions (reported as carbon disulfide) by at

	operation	<p>least 75% based on a 6-month rolling average;</p> <p>ii. for each vent stream that you control using a control device, route the vent stream through a closed-vent system to the control device; and</p> <p>iii. comply with the work practice standard for closed-vent systems.</p>
	e. each existing or new cellulosic sponge operation	<p>i. reduce total uncontrolled sulfide emissions (reported as carbon disulfide) by at least 75% based on a 6-month rolling average;</p> <p>ii. for each vent stream that you control using a control device, route the vent stream through a closed-vent system to the control device; and</p> <p>iii. comply with the work practice standard for closed-vent systems.</p>
	f. each existing or new cellophane operation	<p>i. reduce total uncontrolled sulfide emissions (reported as carbon disulfide) by at least 75% based on a 6-month rolling average;</p> <p>ii. for each vent stream that you control using a control device (except for retractable hoods over sulfuric acid baths at a cellophane operation), route the vent stream through a closed-vent system to the control device; and</p> <p>iii. comply with the work practice standard for closed-vent systems (except for retractable hoods over sulfuric acid baths at a cellophane operation).</p>
2. the sum of all solvent coating process vents	a. each existing or new cellophane operation	<p>i. reduce uncontrolled toluene emissions by at least 95% based on a 6-month rolling average;</p> <p>ii. for each vent stream that you control using a control device, route the vent stream through a closed-vent system to the control device; and</p> <p>iii. comply with the work practice standard for closed-vent systems.</p>
3. the sum of all cellulose ether process vents	a. each existing or new cellulose ether operation	<p>i. reduce total uncontrolled organic HAP emissions by at least 99%;</p> <p>ii. for each vent stream that you control using a control device, route the vent stream through a closed-vent system to the control device; and</p> <p>iii. comply with the work practice standard for closed-vent systems.</p>
4. closed-loop systems	each existing or new cellulose ether operation	comply by operating the closed-loop system.
5. each carbon disulfide unloading and storage operation	a. each existing or new viscose process affected source	<p>i. reduce uncontrolled carbon disulfide emissions by at least 83% from unloading and storage operations based on a 6-month rolling average if you use an alternative control technique not listed in this table source for carbon disulfide unloading and storage operations; if using a control device to reduce emissions, route emissions through a closed-vent system to the control device; and comply with the work practice standard for closed-vent systems;</p> <p>ii. reduce uncontrolled carbon disulfide emissions by at least 0.14% from viscose process vents based on a 6-month rolling average; for each vent stream that you control using a control device, route the vent stream through a closed-vent system to the control device; and comply with the work practice standard for closed-vent systems;</p> <p>iii. install a nitrogen unloading and storage system (as defined in §63.5610); or</p> <p>iv. install a nitrogen unloading system (as defined in §63.5610); reduce uncontrolled carbon disulfide emissions by at least 0.045% from viscose process vents based on a 6-month rolling average; for each vent stream that you control, route the vent stream through a closed-vent to the control device; and comply with the work practice standard for closed-vent systems.</p>
6. each toluene storage vessel	a. each existing or new cellophane operation	<p>i. reduce uncontrolled toluene emissions by at least 95% based on a 6-month rolling average;</p> <p>ii. if using a control device to reduce emissions, route the emissions through a closed-vent system to the control device; and</p> <p>iii. comply with the work practice standard for closed-vent systems.</p>
7. equipment leaks	a. each existing or new cellulose ether operation	<p>i. comply with the applicable equipment leak standards of §§63.162 through 63.179, except that references to "process unit" mean "cellulose ether process unit" for the purposes of this subpart; or</p> <p>ii. comply with the applicable equipment leak standards of §§63.1021 through 63.1037, except that references to "process unit" mean "cellulose ether process unit" for the purposes of this subpart.</p>
8. all sources of wastewater emissions	each existing or new cellulose ether operation	comply with the applicable wastewater provisions of §§63.105 and 63.132 through 63.140.

9. liquid streams in open systems	each existing or new cellulose ether operation	comply with the applicable provisions of §63.149, except that references to “chemical manufacturing process unit” either means “cellulose ether process unit” for the purposes of this subpart.
10. closed-vent system used to route emissions to a control device	each existing or new affected source (except for retractable hoods over sulfuric acid baths at a cellophane operation)	conduct annual inspections, repair leaks, and maintain records as specified in §63.148.
11. closed-vent system containing a bypass line that could divert a vent stream away from a control device, except for equipment needed for safety purposes (described in §63.148(f)(3))	a. each existing or new affected source (except for retractable hoods over sulfuric acid baths at a cellophane operation)	(i) install, calibrate, maintain, and operate a flow indicator as specified in §63.148(f)(1); or (ii) secure the bypass line valve in the closed position with a car-seal or lock-and-key type configuration and inspect the seal or closure mechanism at least once per month as specified in §63.148(f)(2).
12. heat exchanger system that cools process equipment or materials in the process unit	each existing or new affected source	monitor and repair the heat exchanger system according to §63.104(a) through (e), except that references to “chemical manufacturing process unit” mean “cellulose food casing, rayon, cellulosic sponge, cellophane, or cellulose ether process unit” for the purposes of this subpart.

- b) Per 40 CFR §63.5505(d): Opening of a safety device, as defined in 40 CFR §63.5610, is allowed at any time that conditions require venting to avoid unsafe conditions.
- c) Per 40 CFR §63.5505(c): As provided in §63.6(g), the permittee may apply to EPA for permission to use an alternative to the work practice standards in this section.
- d) Per 40 CFR §63.5505(e): The emission limits in Table 1 to this subpart used to control emissions from storage vessels do not apply during periods of planned routine maintenance. Periods of planned routine maintenance of each control device, during which the control device does not meet the emission limit specified in Table 1 to this subpart, must not exceed 240 hours per year.
- e) The permittee must comply with but is not limited to the emission limits and work practices identified in the following item nos. of Table 1 to 40 CFR Part 63, Subpart UUUU including any revisions or amendments: 1.e, 5, 10 and 11.
- f) As required in 40 CFR §63.5505(b), the permittee must meet the appropriate operating limits in the following Table 2 to 40 CFR Part 63, Subpart UUUU:

For the following control technique . . .	you must . . .
1. condenser	maintain the daily average condenser outlet gas or condensed liquid temperature no higher than the value established during the compliance demonstration.
2. thermal oxidizer	maintain the daily average thermal oxidizer firebox temperature no lower than the value established during the compliance demonstration.
3. water scrubber	maintain the daily average scrubber pressure drop and scrubber liquid flow rate within the range of values established during the compliance demonstration.
4. caustic scrubber	maintain the daily average scrubber pressure drop, scrubber liquid flow rate, and scrubber liquid pH, conductivity, or alkalinity within the range of values established during the compliance demonstration.

5. flare	maintain the presence of a pilot flame.
6. biofilter	maintain the daily average biofilter inlet gas temperature, biofilter effluent pH, and pressure drop within the operating values established during the compliance demonstration.
7. carbon absorber	maintain the regeneration frequency, total regeneration adsorber stream mass or volumetric flow during carbon bed regeneration, and temperature of the carbon bed after regeneration (and within 15 minutes of completing any cooling cycle(s)) for each regeneration cycle within the values established during the compliance demonstration.
8. oil absorber	maintain the daily average absorption liquid flow, absorption liquid temperature, and steam flow within the values established during the compliance demonstration.
9. any of the control techniques specified in this table	if using a CEMS, maintain the daily average control efficiency of each control device no lower than the value established during the compliance demonstration.
10. any of the control techniques specified in this table	a. if you wish to establish alternative operating parameters, submit the application for approval of the alternative operating parameters no later than the notification of the performance test or CEMS performance evaluation or no later than 60 days prior to any other initial compliance demonstration; b. the application must include: information justifying the request for alternative operating parameters (such as the infeasibility or impracticality of using the operating parameters in this final rule); a description of the proposed alternative control device operating parameters; the monitoring approach; the frequency of measuring and recording the alternative parameters; how the operating limits are to be calculated; and information documenting that the alternative operating parameters would provide equivalent or better assurance of compliance with the standard; c. install, operate, and maintain the alternative parameter monitoring systems in accordance with the application approved by the Administrator; d. establish operating limits during the initial compliance demonstration based on the alternative operating parameters included in the approved application; and
	e. maintain the daily average alternative operating parameter values within the values established during the compliance demonstration.
11. alternative control technique	a. submit for approval no later than the notification of the performance test or CEMS performance evaluation or no later than 60 days prior to any other initial compliance demonstration a proposed site-specific plan that includes: a description of the alternative control device; test results verifying the performance of the control device; the appropriate operating parameters that will be monitored; and the frequency of measuring and recording to establish continuous compliance with the operating limits; b. install, operate, and maintain the parameter monitoring system for the alternative control device in accordance with the plan approved by the Administrator;
	c. establish operating limits during the initial compliance demonstration based on the operating parameters for the alternative control device included in the approved plan; and
	d. maintain the daily average operating parameter values for the alternative control technique within the values established during the compliance demonstration.

g) The permittee must comply with but is not limited to the operating limits identified in the following item nos. of Table 2 to 40 CFR Part 63, Subpart UUUU including any revisions or amendments: 6, 10 and 11.

h) On 7/10/2009, U.S. EPA, Region V approved 3M's request to monitor biofilter system liquid effluent conductivity in lieu of biofilter system liquid pH for the purposes of demonstrating compliance with 40 CFR Part 63, Subpart UUUU and as required by 40 CFR §63.5505(b).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

10. 40 CFR Part 63, Subpart UUUU - General Requirements

a) Per 40 CFR §63.5515(c), the permittee must develop a written startup, shutdown, and malfunction (SSM) plan according to the provisions in 40 CFR §63.6(e)(3).

- b) The permittee must comply with other applicable sections of 40 CFR §63.5515 including any revisions or amendments.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

11. 40 CFR Part 63, Subpart UUUU - Monitoring Installation, Operation, and Maintenance Requirements

- a) Per 40 CFR §63.5545(a), for each continuous monitoring system (CMS) required in 40 CFR §63.5545, the permittee must develop and make available for inspection by the permitting authority, upon request, a site-specific monitoring plan that addresses the provisions in paragraphs (a)(1) through (3) of 40 CFR §63.5545.
 - (1) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);
 - (2) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system; and
 - (3) Performance evaluation procedures and acceptance criteria (e.g., calibrations).
- b) In the site-specific monitoring plan, the permittee must also address the provisions in paragraphs (b)(1) through (3) of 40 CFR §63.5545.
 - (1) Ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR §§63.8(c)(1), (3), (4)(ii) and 63.5580(c)(6);
 - (2) Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR §63.8(d)(2); and
 - (3) Ongoing record keeping and reporting procedures in accordance with the general requirements of 40 CFR §§63.10(c), (e)(1), (e)(2)(i) and 63.5585.
- c) The permittee must conduct a performance evaluation of each CMS in accordance with the site-specific monitoring plan.
- d) The permittee must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.
- e) For each continuous parameter monitoring system (CPMS), the permittee must meet the requirements in paragraphs (f)(1) through (9) of 40 CFR §63.5545.
 - (1) Satisfy all requirements of performance specifications for CPMS upon promulgation of such performance specifications.
 - (2) Satisfy all requirements of quality assurance (QA) procedures for CPMS upon promulgation of such QA procedures.



- (3) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period.
- (4) To calculate a valid hourly average, there must be at least four equally spaced values for that hour, excluding data collected during the periods described in paragraph (f)(6) of 40 CFR §63.5545.
- (5) Have valid hourly data for at least 75 percent of the hours during the averaging period.
- (6) The CPMS data taken during periods in which the control devices are not functioning in controlling emissions, as indicated by periods of no flow for all or a portion of an affected source, must not be considered in the averages.
- (7) Calculate a daily average using all of the valid hourly averages for each operating day during the semiannual reporting period.
- (8) Record the results of each inspection, calibration, and validation check.
- (9) Except for redundant sensors, any device that is used to conduct an initial validation or accuracy audit of a CPMS must meet the accuracy requirements specified in paragraphs (f)(9)(i) and (ii) of 40 CFR §63.5545.
 - a. The device must have an accuracy that is traceable to National Institute of Standards and Technology (NIST) standards.
 - b. The device must be at least three times as accurate as the required accuracy for the CPMS.
- f) If flow to a control device could be intermittent, the permittee must install, calibrate, and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow.
- g) The permittee must comply with other applicable sections of 40 CFR §63.5545 including any revisions or amendments.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

12. 40 CFR Part 63, Subpart UUUU - Continuous Compliance Requirements

- a) As required in 40 CFR §63.5555(a), the permittee must demonstrate continuous compliance with the appropriate emission limits and work practice standards according to the requirements in Table 5 to 40 CFR Part 63, Subpart UUUU:

For . . .	at . . .	for the following emission limit or work practice standard . . .	you must demonstrate continuous compliance by . . .
1. the sum of all viscose process vents	a. each existing or new viscose process affected source	i. reduce total uncontrolled sulfide emissions (reported as carbon disulfide) by at least the specified percentage based on a 6-month rolling average; ii. for each vent stream that you control using a control device (except for retractable hoods over sulfuric acid	(1) maintaining a material balance that includes the pertinent data used to determine the percent reduction of total sulfide emissions; (2) documenting the percent reduction of total sulfide emissions using the pertinent data from the material balance; and

		baths at a cellophane operation), route the vent stream through a closed-vent system to the control device; and iii. comply with the work practice standard for closed-vent systems (except for retractable hoods over sulfuric acid baths at a cellophane operation)	(3) complying with the continuous compliance requirements for closed-vent systems.
2. the sum of all solvent coating process vents	a. each existing or new cellophane operation	i. reduce uncontrolled toluene emissions by at least 95% based on a 6-month rolling average; ii. for each vent stream that you control using a control device, route the vent stream through a closed-vent system to the control device; and iii. comply with the work practice standard for closed-vent systems	(1) maintaining a material balance that includes the pertinent data used to determine the percent reduction of toluene emissions; (2) documenting the percent reduction of toluene emissions using the pertinent data from the material balance; and (3) complying with the continuous compliance requirements for closed-vent systems.
3. the sum of all cellulose ether process vents	a. each existing or new cellulose ether operation using a performance test to demonstrate initial compliance; or	i. reduce total uncontrolled organic HAP emissions by at least 99%; ii. for each vent stream that you control using a control device, route the vent stream through a closed-vent system to the control device; and, iii. comply with the work practice standard for closed-vent systems; or	(1) complying with the continuous compliance requirements for closed-vent systems; or (2) if using extended cookout to comply, monitoring reactor charges and keeping records to show that extended cookout was employed.
	b. each existing or new cellulose ether operation using a material balance compliance demonstration to demonstrate initial compliance	i. reduce total uncontrolled organic HAP emissions by at least 99% based on a 6-month rolling average; ii. for each vent stream that you control using a control device, route the vent stream through a closed-vent system to control device; and iii. comply with the work practice standard for closed-vent systems	(1) maintaining a material balance that includes the pertinent data used to determine the percent reduction of total organic HAP emissions; (2) documenting the percent reduction of total organic HAP emissions using the pertinent data from the material balance; (3) if using extended cookout to comply, monitoring reactor charges and keeping records to show that extended cookout was employed; (4) complying with the continuous compliance requirements for closed-vent systems.
4. closed-loop systems	each existing or new cellulose ether operation	operate and maintain a closed-loop system	keeping a record certifying that a closed-loop system is in use for cellulose ether operations.
5. each carbon disulfide unloading and storage operation	a. each existing or new viscose process affected source	i. reduce uncontrolled carbon disulfide emissions by at least 83% based on a 6-month rolling average if you use an alternative control technique not listed in this table for carbon disulfide unloading and storage operations; if using a control device to reduce emissions, route emissions through a closed-vent system to the control device; and comply with the work practice standard for closed-vent systems;	(1) keeping a record documenting the 83% reduction in carbon disulfide emissions; and (2) if venting to a control device to reduce emissions, complying with the continuous compliance requirements for closed-vent systems;
		ii. reduce total uncontrolled sulfide emissions by at least 0.14% from viscose process vents based on a 6-month rolling average; for each vent stream that you control using a control	(1) maintaining a material balance that includes the pertinent data used to determine the percent reduction of total sulfide emissions; (2) documenting the percent reduction of total sulfide

		device, route the vent stream through a closed-vent system to the control device; and comply with the work practice standard for closed-vent systems;	emissions using the pertinent data from the material balance; and (3) complying with the continuous compliance requirements for closed-vent systems;
		iii. install a nitrogen unloading and storage system; or	Keeping a record certifying that a nitrogen unloading and storage system is in use; or
		iv. install a nitrogen unloading system; reduce total uncontrolled sulfide emissions by at least 0.045% from viscose process vents based on a 6-month rolling average; for each vent stream that you control using a control device, route the vent stream through a closed-vent system to the control device; and comply with the work practice standard for closed-vent systems	(1) keeping a record certifying that a nitrogen unloading system is in use; (2) maintaining a material balance that includes the pertinent data used to determine the percent reduction of total sulfide emissions; (3) documenting the percent reduction of total sulfide emissions using the pertinent data from the material balance; and (4) complying with the continuous compliance requirements for closed-vent systems.
6. each toluene storage vessel	a. each existing or new cellophane operation	i. reduce uncontrolled toluene emissions by at least 95% based on a 6-month rolling average; ii. if using a control device to reduce emissions, route the emissions through a closed-vent system to the control device; and iii. comply with the work practice standard for closed-vent systems	(1) maintaining a material balance that includes the pertinent data used to determine the percent reduction of toluene emissions; (2) documenting the percent reduction of toluene emissions using the pertinent data from the material balance; and (3) if venting to a control device to reduce emissions, complying with the continuous compliance requirements for closed-vent systems.
7. equipment leaks	a. each existing or new cellulose ether operation	i. applicable equipment leak standards of §§63.162 through 63.179; or ii. applicable equipment leak standards of §§63.1021 through 63.1037	complying with the applicable equipment leak continuous compliance provisions of §§63.162 through 63.179; or complying with the applicable equipment leak continuous compliance provisions of §§63.1021 through 63.1037.
8. all sources of wastewater emissions	each existing or new cellulose ether operation	applicable wastewater provisions of §63.105 and §§63.132 through 63.140.	complying with the applicable wastewater continuous compliance provisions of §§63.105, 63.143, and 63.148.
9. liquid streams in open systems	each existing or new cellulose ether operation	comply with the applicable provisions of §63.149, except that references to "chemical manufacturing process unit" mean "cellulose ether process unit" for the purposes of this subpart	conducting inspections, repairing failures, documenting delay of repair, and maintaining records of failures and corrective actions according to §§63.133 through 63.137.
10. closed-vent system used to route emissions to a control device	each existing or new affected source	conduct annual inspections, repair leaks, maintain records as specified in §63.148	conducting the inspections, repairing leaks, and maintaining records according to §63.148.
11. closed-vent system containing a bypass line that could divert a vent stream away from a control device, except for equipment needed for safety	a. each existing or new affected source	i. install, calibrate, maintain, and operate a flow indicator as specified in §63.148(f)(1); or	(1) taking readings from the flow indicator at least once every 15 minutes; (2) maintaining hourly records of flow indicator operation and detection of any diversion during the hour, and (3) recording all periods when the vent stream is diverted from the control

purposes (described in §63.148(f)(3))			stream or the flow indicator is not operating; or
		ii. secure the bypass line valve in the closed position with a car-seal or lock-and-key type configuration and inspect the seal or mechanism at least once per month as specified in §63.148(f)(2)	(1) maintaining a record of the monthly visual inspection of the seal or closure mechanism for the bypass line; and (2) recording all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out.
12. heat exchanger system that cools process equipment or materials in the process unit	a. each existing or new affected source	i. monitor and repair the heat exchanger system according to §63.104(a) through (e), except that references to "chemical manufacturing process unit" mean "cellulose food casing, rayon, cellulosic sponge, cellophane, or cellulose ether process unit" for the purposes of this subpart	(1) monitoring for HAP compounds, other substances, or surrogate indicators at the frequency specified in §63.104(b) or (c); (2) repairing leaks within the time period specified in §63.104(d)(1); (3) confirming that the repair is successful as specified in §63.104(d)(2); (4) following the procedures in §63.104(e) if you implement delay of repair; and (5) recording the results of inspections and repair according to §63.104(f)(1).

- b) The permittee must comply with but is not limited to the continuous compliance requirements for the appropriate emission limits and work practice standards identified in the following item nos. of Table 5 to 40 CFR Part 63, Subpart UUUU including any revisions or amendments: 1.a.i through iii, 5, 10 and 11.ii.
- c) As required in 40 CFR §63.5555(a), the permittee must demonstrate continuous compliance with the appropriate operating limits according to the requirements in Table 6 to 40 CFR Part 63, Subpart UUUU:

For the following control technique . . .	for the following operating limit . . .	you must demonstrate continuous compliance by . . .
1. condenser	maintain the daily average condenser outlet gas or condensed liquid temperature no higher than the value established during the compliance demonstration	collecting the condenser outlet gas or condensed liquid temperature data according to §63.5545; reducing the condenser outlet gas temperature data to daily averages; and maintaining the daily average condenser outlet gas or condensed liquid temperature no higher than the value established during the compliance demonstration.
2. thermal oxidizer	maintain the daily average thermal oxidizer firebox temperature no lower than the value established during the compliance demonstration	collecting the thermal oxidizer firebox temperature data according to §63.5545; reducing the thermal oxidizer firebox temperature data to daily averages; and maintaining the daily average thermal oxidizer firebox temperature no lower than the value established during the compliance demonstration.
3. water scrubber	maintain the daily average scrubber pressure drop and scrubber liquid flow rate within the range of values established during the compliance demonstration	collecting the scrubber pressure drop and scrubber liquid flow rate data according to §63.5545; reducing the scrubber parameter data to daily averages; and maintaining the daily scrubber parameter values within the range of values established during the compliance demonstration.
4. caustic scrubber	maintain the daily average scrubber pressure drop, scrubber liquid flow rate, and scrubber liquid pH, conductivity, or alkalinity within the range of values established during the compliance demonstration	collecting the scrubber pressure drop, scrubber liquid flow rate, and scrubber liquid pH, conductivity, or alkalinity data according to §63.5545; reducing the scrubber parameter data to daily averages; and maintaining the daily scrubber parameter values within the range of values established during the compliance demonstration.

5. flare	maintain the presence of a pilot flame	collecting the pilot flame data according to §63.5545; and maintaining the presence of the pilot flame.
6. biofilter	maintain the daily average biofilter inlet gas temperature, biofilter effluent pH, and pressure drop within the values established during the compliance demonstration	collecting the biofilter inlet gas temperature, biofilter effluent pH, and biofilter pressure drop data according to §63.5545; reducing the biofilter parameter data to daily averages; and maintaining the daily biofilter parameter values within the values established during the compliance demonstration.
7. carbon absorber	maintain the regeneration frequency, total regeneration stream mass or volumetric flow during carbon bed regeneration and temperature of the carbon bed after regeneration (and within 15 minutes of completing any cooling cycle(s)) for each regeneration cycle within the values established during the compliance demonstration	collecting the data on regeneration frequency, total regeneration stream mass or volumetric flow during carbon bed regeneration and temperature of the carbon bed after regeneration (and within 15 minutes of completing any cooling cycle(s)) for each regeneration cycle according to §63.5545; and maintaining carbon absorber parameter values for each regeneration cycle within the values established during the compliance demonstration.
8. oil absorber	maintain the daily average absorption liquid flow, absorption liquid temperature, and steam flow within the values established during the compliance demonstration	collecting the absorption liquid flow, absorption liquid temperature, and steam flow data according to §63.5545; reducing the oil absorber parameter data to daily averages; and maintaining the daily oil absorber parameter values within the values established during the compliance demonstration.
9. any of the control techniques specified in this table	if using a CEMS, maintain the daily average control efficiency for each control device no lower than the value established during the compliance demonstration	collecting CEMS emissions data at the inlet and outlet of each control device according to §63.5545; determining the control efficiency values for each control device using the inlet and outlet CEMS emissions data; reducing the control efficiency values for each control device to daily averages; and maintaining the daily average control efficiency for each control device no lower than the value established during the compliance demonstration.

- d) The permittee must comply with but is not limited to the continuous compliance requirements for the appropriate operating limits identified in the following item nos. of Table 6 to 40 CFR Part 63, Subpart UUUU including any revisions or amendments: 6. See B.9.h).
- e) The permittee must report each instance in which the permittee was not in continuous compliance (as specified in Tables 5 and 6 to this subpart) with each emission limit, each operating limit, and each work practice standard that are applicable. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limits, operating limits, and work practice standards in this subpart. These deviations must be reported according to the requirements in 40 CFR §63.5580.
- f) Consistent with 40 CFR §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if the permittee demonstrates to the Administrator's satisfaction that the permittee was operating in accordance with 40 CFR §63.6(e)(1). The Administrator will determine whether deviations that occur during a period the permittee identifies as a startup, shutdown, or malfunction are violations, according to the provisions in 40 CFR §63.6(e).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

13. 40 CFR Part 63, Subpart UUUU – Notifications and Record Keeping Requirements

a) As required in 40 CFR §§63.5490(c)(4), 63.5530(c), 63.5575, and 63.5595(b), the permittee must submit the appropriate notifications specified in Table 7 to 40 CFR Part 63, Subpart UUUU including any revisions or amendments.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

b) As required in 40 CFR §63.5585, the permittee must keep the appropriate records specified in Table 9 to 40 CFR Part 63, Subpart UUUU.

If you operate . . .	then you must keep . . .	and the record(s) must contain . . .
1. an existing or new affected source	a copy of each notification and report that you submitted to comply with this subpart	all documentation supporting any Initial Notification or Notification of Compliance Status Report that you submitted, according to the requirements in §63.10(b)(2)(xiv), and any compliance report required under this subpart.
2. an existing or new affected source	a. the records in §63.6(e)(3)(iii) through (iv) related to startup, shutdown, and malfunction	i. SSM plan; ii. when actions taken during a startup, shutdown, or malfunction are consistent with the procedures specified in the SSM plan, records demonstrating that the procedures specified in the plan were followed; iii. records of the occurrence and duration of each startup, shutdown, or malfunction; and iv. when actions taken during a startup, shutdown, or malfunction are not consistent with the procedures specified in the SSM plan, records of the actions taken for that event.
3. an existing or new affected source	a. a site-specific monitoring plan	i. information regarding the installation of the CMS sampling source probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device); ii. performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system; iii. performance evaluation procedures and acceptance criteria (e.g., calibrations); iv. ongoing operation and maintenance procedures in accordance with the general requirements of §§63.8(c)(1), (3), and (4)(ii) and 63.5580(c)(6); v. ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d)(2); and vi. ongoing recordkeeping and reporting procedures in accordance with the general requirements of §§63.10(c), (e)(1), and (e)(2)(i) and 63.5585.
4. an existing or new affected source	records of performance tests and CEMS performance evaluations, as required in §63.10(b)(2)(viii) and any other initial compliance demonstrations	all results of performance tests, CEMS performance evaluations, and any other initial compliance demonstrations, including analysis of samples, determination of emissions, and raw data.
5. an existing or new affected source	a. records for each CEMS	i. records described in §63.10(b)(2)(vi) through (xi); ii. previous (superseded) versions of the performance evaluation plan as required in §63.8(d)(3); iii. request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i); iv. records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period; and v. records required in Table 6 to Subpart UUUU to show continuous compliance with the operating limit.
6. an existing or new affected source	a. records for each CPMS	i. records required in Table 6 to Subpart UUUU to show continuous compliance with each operating limit that applies to you; and ii. results of each CPMS calibration, validation check, and inspection required by §63.5545(b)(4).

7. an existing or new cellulose ether affected ether source	records of closed-loop systems	records certifying that a closed-loop system is in use for cellulose ether operations.
8. an existing or new viscose process affected source	records of nitrogen unloading and storage systems or nitrogen unloading systems	records certifying that a nitrogen unloading and storage system or nitrogen unloading system is in use.
9. an existing or new viscose process affected source	records of material balances	all pertinent data from the material balances used to estimate the 6-month rolling average percent reduction in HAP emissions.
10. an existing or new viscose process affected source	records of calculations	documenting the percent reduction in HAP emissions using pertinent data from the material balances.
11. an existing or new cellulose ether affected source	a. extended cookout records	i. the amount of HAP charged to the reactor; ii. the grade of product produced; iii. the calculated amount of HAP remaining before extended cookout; and iv. information showing that extended cookout was employed.
12. an existing or new cellulose ether affected source	a. equipment leak records	i. the records specified in §63.181 for equipment leaks; or ii. the records specified in 63.1038 for equipment leaks.
13. an existing or new cellulose ether affected source	wastewater records	the records specified in §§63.105, 63.147, and 63.152(f) and (g) for wastewater.
14. an existing or new affected source	closed-vent system records	the records specified in §63.148(i).
15. an existing or new affected source	a. bypass line records	i. hourly records of flow indicator operation and detection of any diversion during the hour and records of all periods when the vent stream is diverted from the control stream or the flow indicator is not operating; or ii. the records of the monthly visual inspection of the seal or closure mechanism and of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out and records of any car-seal that has broken.
16. an existing or new affected source	heat exchanger system records	records of the results of inspections and repair according to source §63.104(f)(1).
17. an existing or new affected source	control device maintenance records	records of planned routine maintenance for control devices used to comply with the percent reduction emission limit for storage vessels in Table 1 to Subpart UUUU.
18. an existing or new affected source	safety device records	a record of each time a safety device is opened to avoid unsafe conditions

- c) The permittee must comply with but is not limited to the record keeping requirements identified in the following item nos. of Table 9 to 40 CFR Part 63, Subpart UUUU including any revisions or amendments: 1, 2, 3, 4, 6, 8, 9, 10, 14, 15.a.ii, 17 and 18.
- d) The records must be in a form suitable and readily available for expeditious review, according to 40 CFR §63.10(b)(1).
 - (1) As specified in 40 CFR §63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

- (2) The permittee must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR §63.10(b)(1). You can keep the records offsite for the remaining 3 years.

The permittee may keep records in hard copy or computer-readable form including, but not limited to, paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

14. 40 CFR Part 63, Subpart UUUU – Reporting Requirements

- a) As required in 40 CFR §63.5580, the permittee must submit the appropriate reports specified in Table 8 to 40 CFR Part 63, Subpart UUUU:

You must submit a compliance report, which must contain the following information . . .	and you must submit the report . . .
1. if there are no deviations from any emission limit, operating limit, or work practice standard during the reporting period, then the report must contain the information specified in §63.5580(c);	semiannually as specified in §63.5580(b).
2. if there were no periods during which the CMS was out-of-control, then the report must contain a statement that there were no periods during which the CMS was out-of-control during the reporting period; you must develop and include specifications for out-of-control operation in the CMS quality control plan required under §63.8(d)(2);	
3. if there is a deviation from any emission limit, operating limit, or work practice standard during the reporting period, then the report must contain the information specified in §63.5580(c) and (d);	
4. if there were periods during which the CMS was out-of-control, then the report must contain the information specified in §63.5580(e);	
5. if you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSM plan, then the report must contain the information specified in §63.10(d)(5)(i);	
6. if you had a startup, shutdown, or malfunction during the reporting period and you took actions that are not consistent with your SSM plan, then the report must contain the information specified in §63.10(d)(5)(ii);	
7. the report must contain any change in information already provided, as specified in §63.9(j);	
8. for cellulose ether affected sources complying with the equipment leak requirements of subpart H of this part, the report must contain the information specified in §63.182(a)(3) and (6) and (d)(2) through (4);	
9. for cellulose ether affected sources complying with the equipment leak requirements of subpart UU of this part, the report must contain the information specified in §63.1039(b);	
10. for cellulose ether affected sources complying with the wastewater requirements of subparts F and G of this part, the report must contain the information specified in §§63.146(c) through (e) and 63.152(a)(4) and (5) and (c) through (e);	
11. for affected sources complying with the closed-vent system provisions in §63.148, the report must contain the information specified in §63.148(j)(1);	
12. for affected sources complying with the bypass line provisions in §63.148(f), the report must contain the information specified in §63.148(j)(2) and (3);	
13. for affected sources invoking the delay of repair provisions in §63.104(e) for heat exchanger systems, the next compliance report must contain the information in §63.104(f)(2)(i) through (iv); if the leak remains unrepaired, the information must also be submitted in each subsequent compliance report until the repair of the leak is reported; and	
14. for storage vessels subject to the emission limits and work practice standards in Table 1 to Subpart UUUU, the report must contain the periods of planned routine maintenance during which the control device does not comply with the emission limits or work practice standards in Table 1 to this subpart.	

- b) The permittee must comply with but is not limited to the reporting requirements identified in the following item nos. of Table 8 to 40 CFR Part 63, Subpart UUUU including any revisions or amendments: 1, 2, 3, 4, 5, 6, 7, 11, 12 and 14.
- c) Per 40 CFR §63.5580(b)(5) for each affected source that is subject to permitting regulations pursuant to 40 CFR Part 70 or 40 CFR Part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of 40 CFR §63.5580. See Standard Term and Condition A.4.c).
- d) The compliance report must contain the information in paragraphs (c)(1) through (6) of 40 CFR §63.5580.
 - (1) Company name and address.
 - (2) Statement by a responsible official, with that official's name, title, and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
 - (3) Date of report and beginning and ending dates of the reporting period.
 - (4) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in 40 CFR §63.10(d)(5)(i).
 - (5) If there are no deviations from any emission limits, operating limits, or work practice standards that apply to you (see Tables 5 and 6 to this subpart), the compliance report must contain a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.
 - (6) If there were no periods during which the CMS was out-of-control, the compliance report must contain a statement that there were no periods during which the CMS was out-of-control during the reporting period. You must include specifications for out-of-control operation in the quality control plan required under 40 CFR §63.8(d)(2).
- e) For each deviation from an emission limit or work practice standard that occurs at an affected source where the permittee is not using a CMS to demonstrate continuous compliance with the emission limits or work practice standards in 40 CFR Part 63, Subpart UUUU (see Table 5 to 40 CFR Part 63, Subpart UUUU), the compliance report must contain the information in paragraphs (c)(1) through (4) and (d)(1) and (2) of 40 CFR §63.5580. This includes periods of startup, shutdown, and malfunction.
 - (1) The total operating time of each affected source during the reporting period.
 - (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- f) For each deviation from an emission limit or operating limit occurring at an affected source where the permittee is using a CMS to demonstrate continuous compliance with the emission

limit or operating limit in this subpart (see Tables 5 and 6 to this subpart), the permittee must include the information in paragraphs (c)(1) through (4) and (e)(1) through (13) of 40 CFR §63.5580. This includes periods of startup, shutdown, and malfunction.

- (1) The date and time that each malfunction started and stopped.
 - (2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.
 - (3) The date, time, and duration that each CMS was out-of-control.
 - (4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
 - (5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
 - (6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
 - (7) A summary of the total duration of CMS downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.
 - (8) An identification of each HAP that is known to be in the emission stream at the affected source.
 - (9) A brief description of the process units.
 - (10) A brief description of the CMS.
 - (11) The date of the latest continuous emission monitoring system (CEMS) certification or audit or CPMS inspection, calibration, or validation check.
 - (12) A description of any changes in CMS, processes, or controls since the last reporting period.
 - (13) The operating day average values of monitored parameters.
- g) If the permittee has obtained a title V operating permit according to 40 CFR Part 70 or 40 CFR Part 71, the permittee must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report according to Table 8 to 40 CFR Part 63, Subpart UUUU along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice standard in this subpart, then submitting the compliance report will satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submitting a compliance report will not otherwise affect any obligation the permittee may have to report deviations from permit requirements to the permit authority.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

15. **40 CFR Part 63 Subpart UUUU - Applicability of General Provisions to Subpart UUUU**

- a) As required in 40 CFR §§63.5515(h) and 63.5600, the permittee must comply with the appropriate General Provisions requirements specified in Table 10 to 40 CFR Part 63, Subpart UUUU.
- b) For the purposes of 40 CFR Part 63, Subpart UUUU, the applicable 40 CFR Part 63, Subpart A requirements in Table 10 to Subpart UUUU supersede the applicable Subpart A requirements in Subparts G and U of 40 CFR Part 63.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

16. **Compliance Methods - Compliance with the Emissions Limitations and/or Control Requirements specified in sections B.2., B.3., B.5., B.8 and B.9. of these terms and conditions shall be determined in accordance with the following methods:**

a) Emission Limitation:

The permittee shall capture VOC and H₂S emissions from the facility at a minimum of 85% and route them to the biofiltration control system.

Applicable Compliance Method:

The VOC emissions capture efficiency and H₂S emissions capture efficiency may be determined by the following equation:

$$TCE = (BI \times QI) / [(BI \times QI) + (V \times QV)] \times 100$$

where:

TCE = total bio-filtration system capture efficiency of VOC emissions, in percent;

BI = the daily average VOC concentration or H₂S concentration, in ppm, at the inlet to bio-filtration units;

QI = the average daily airflow rate at the inlet to the bio-filtration system, in acfm;

V = the daily average VOC concentration or H₂S concentration, in ppm, at the inlet to plant ventilation stack; and

QV = the average daily airflow rate in the plant ventilation stack, in acfm.

[Authority for term: OAC rule 3745-31-05(A)(3)]

b) Emission Limitation:

For each vent stream that the permittee controls using a control device, the vent stream must be routed through a closed-vent system to the control device.

For each closed-vent system used to route emissions to a control device at each existing or new affected source (except for retractable hoods over sulfuric acid baths at a cellophane operation) the permittee must conduct annual inspections, repair leaks, and maintain records as specified in 40 CFR §63.148.

For each closed-vent system containing a bypass line that could divert a vent stream away from a control device, except for equipment needed for safety purposes (described in 40 CFR §63.148(f)(3)) at each existing or new affected source (except for retractable hoods over sulfuric acid baths at a cellophane operation) the permittee must do the following:

- (1) install, calibrate, maintain, and operate a flow indicator as specified in 40 CFR §63.148(f)(1); or
- (2) secure the bypass line valve in the closed position with a car-seal or lock-and-key type configuration and inspect the seal or closure mechanism at least once per month as specified in 40 CFR §63.148(f)(2).

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring requirements in 40 CFR § 63.5545 (see B.11.), the continuous compliance requirements in 40 CFR § 63.5555(a) (see B.12.), and the record keeping requirements in Table 9 to 40 CFR Part 63, Subpart UUUU (see B.13.b), rows 14 and 15)a.i. and ii.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

c) Emission Limitation:

The biofiltration system shall remove a minimum of 80% of VOC emissions vented to it and the control efficiency determination shall be based on the arithmetic average of the preceding sixty (60) consecutive days' average removal efficiency.

Applicable Compliance Method:

The VOC emissions control efficiency may be determined by the following equation:

$$EF = \sum_{i=1}^{60} [1 - (BO/BI)] \times 100$$

where:

EF = VOC emissions removal efficiency of biofiltration units, in percent, as a 60-day average;

BO = VOC outlet concentration from biofiltration units, in ppm; and

BI = VOC inlet concentration to biofiltration units, in ppm.

[Authority for term: OAC rule 3745-31-05(A)(3)]

d) Emission Limitation:

The emissions of VOC shall not exceed 222.5 tons/year from the facility.

The emissions of H₂S shall not exceed 9.95 tons/year from the facility.

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirements specified in B.6. The permittee shall maintain a material balance that includes the pertinent data used to determine the VOC and H₂S emissions from the facility.

[Authority for term: OAC rule 3745-31-05(F)]

e) Emission Limitation:

Total uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average from the emissions units specified in B.2.a), combined.

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring requirements in 40 CFR § 63.5545 (see B.11.), the continuous compliance requirements in 40 CFR § 63.5555(a) (see B.12.), and the record keeping requirements in Table 9 to 40 CFR Part 63, Subpart UUUU (see B.13.b), rows 9 and 10).

The sulfide emissions reduction efficiency (overall control efficiency) may be determined by the following equation(s):

- (1) The total emissions rate of sulfide, as carbon disulfide, in each sulfide emissions vent stream, as specified in equation 2 in 40 CFR 63.5535(e)(2) may be determined as follows for each sample set:

$$ER_{total\ sulf} = ER_{CS2} + \left(ER_{H2S} \times \frac{M_{CS2}}{M_{H2S}} \right) + \left(ER_{COS} \times \frac{M_{CS2}}{M_{COS}} \right)$$

where:

$ER_{total\ sulf\ i}$ = total emission rate of sulfide in vent stream i (the biofiltration system inlet and outlet and the vent stack outlet), kg/hr (lb/hr), as carbon disulfide;

ER_{CS2} = emission rate of carbon disulfide in vent stream, kg/hr (lb/hr);

ER_{H2S} = emission rate of hydrogen sulfide in vent stream, kg/hr (lb/hr);

M_{CS2} = mass of carbon disulfide per mole of carbon disulfide, 76 kilograms per kilogram-mole (kg/kg-mole) (76 pounds per pound-mole (lb/lb-mole));

M_{H2S} = mass of hydrogen sulfide per mole of carbon disulfide, 68 kg/kg-mole (68 lb/lb-mole);

ER_{COS} = emission rate of carbonyl sulfide in vent stream, kg/hr (lb/hr); and

M_{COS} = mass of carbonyl sulfide per mole of carbon disulfide, 120 kg/kg-mole (120 lb/lb-mole).

- (2) The sulfide emissions overall control efficiency, as carbon disulfide, based on equation 3 in 40 CFR 63.5535(e)(3) may be determined as follows as a daily average of the sample sets collected each day:

$$CE = (ER_i - ER_{o \text{ biofilter}}) / ER_i \times 100$$

where:

CE = overall control efficiency, in percent;

ER_i = total emission rate of organic HAP (ER_{HAPT}) or sulfide (ER_{sulft}) in the inlet vent stream of the control device (biofilter system inlet), kg/hr (lb/hr); and

$ER_{o \text{ biofilter}}$ = total emission rate of organic HAP (ER_{HAPT}) or sulfide (ER_{sulft}) in the outlet vent stream of the control device (biofilter system outlet), kg/hr (lb/hr).

- (3) The sulfide emissions overall control efficiency, as carbon disulfide, shall be determined each month as a 6-month rolling, average of the daily average values and may be calculated as follows:

$$CE_{6\text{-month}} = \left(\sum_{i=1}^{N_{days}} CE_i \right) / N_{days}$$

where:

$CE_{6\text{-month}}$ = The sulfide emissions overall control efficiency, as carbon disulfide, as a 6-month rolling average, in percent;

CE_i = the daily average overall control efficiency, in percent, as determined in B.16.e)(2); and

N_{DAYS} = the number of days of actual operation of any of the emissions units specified in B.2.b) during a 6-month period.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

f) Emission Limitation:

For each carbon disulfide unloading and storage operation at each existing or new viscose process affected source the permittee must:

- i. reduce uncontrolled carbon disulfide emissions by at least 83% from unloading and storage operations based on a 6-month rolling average if you use an alternative control technique not listed in this table source for carbon disulfide unloading and storage operations; if using a

control device to reduce emissions, route emissions through a closed-vent system to the control device; and comply with the work practice standard for closed-vent systems;

ii. reduce uncontrolled carbon disulfide emissions by at least 0.14% from viscose process vents based on a 6-month rolling average; for each vent stream that you control using a control device, route the vent stream through a closed-vent system to the control device; and comply with the work practice standard for closed-vent systems;

iii. install a nitrogen unloading and storage system (as defined in 40 CFR §63.5610); or

iv. install a nitrogen unloading system (as defined in 40 CFR §63.5610); reduce uncontrolled carbon disulfide emissions by at least 0.045% from viscose process vents based on a 6-month rolling average; for each vent stream that you control, route the vent stream through a closed-vent to the control device; and comply with the work practice standard for closed-vent systems.

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring requirements in 40 CFR § 63.5545 (see B.11), the continuous compliance requirements in 40 CFR § 63.5555(a) (see B.12), and the record keeping requirements in Table 9 to 40 CFR Part 63, Subpart UUUU (see B.13.b), row 8.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

17. Testing Requirements - The permittee shall conduct, or have conducted, emission testing for the emissions units specified in B.2.a) in accordance with the following requirements:

- a) The emission testing shall be conducted within 4.5 years after the most recent performance test(s) that demonstrated compliance. Compliance was recently demonstrated with test(s) performed on 6/10/2014, 6/11/2014 and 6/12/2014.
- b) The emission testing shall be conducted to demonstrate compliance with the following limits:
 - (1) A negative pressure of the building enclosure serving the emissions unit(s) specified in B.2.a);
 - (2) A minimum of 85% capture efficiency for VOC emissions;
 - (3) A minimum of 85% capture efficiency for H₂S emissions;
 - (4) A minimum of 80% control efficiency for VOC emissions of the biofilter system and/or backup scrubber; and
 - (5) A minimum of 75% reduction of total, uncontrolled sulfide emissions (reported as carbon disulfide).
- c) The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) and other requirements specified in B.17.b).
 - (1) Method 1, 40 CFR Part 60, Appendix A - test port and traverse point locations,

- (2) Method 2, 40 CFR Part 60, Appendix A – volumetric flow;
- (3) Method 3, 40 CFR Part 60, Appendix A – gas composition;
- (4) Method 4, 40 CFR Part 60, Appendix A – moisture content;
- (5) Method 15 (ALT-074 modification), 40 CFR Part 60, Appendix A – low concentrations of H₂S in biofilter system outlet and vent stack outlet;
- (6) Method 204, 40 CFR Part 51, Appendix M – enclosure; and
- (7) Method 320, 40 CFR Part 63, Appendix A – CS₂, COS in all exhaust streams and high concentrations of H₂S in biofilter system inlet.

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

The ALT-074 modification to Method 15 from 40 CFR Part 60, Appendix A for low concentrations of H₂S was approved by U.S. EPA in an April 29, 2010 letter and allows composite exhaust gas sample collection while maintaining the samples at a temperature 10 degrees warmer than the exhaust gas stack temperature and analysis within 24 hours of collection. This ALT-074 modification to Method 15 was approved for all similar facilities in the cellulose products manufacturing source category subject to 40 CFR Part 63, Subpart UUUU.

- d) The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the Ohio EPA Northeast District Office. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.
- e) Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).
- f) Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), 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 emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

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.

[Authority for term: OAC rule 3745-31-05(A)(3) and 40 CFR Part 63, Subpart UUUU]

18. **Data Collection Option Requirements**

- a) The permittee may conduct, or have conducted, data collection of the control equipment operating parameters of the backup scrubber in accordance with the following requirements:
- (1) The data collection shall begin within 1 month after issuance of this permit or at a later date with prior approval from the Ohio EPA Northeast District Office.
 - (2) The data collection shall be conducted to establish an appropriate operating range or limit for the backup scrubber pH and pressure differential.
 - (3) The control equipment parameter(s) shall be monitored, recorded and reported as a daily average for each day of backup scrubber operation throughout the duration of the data collection period. The emission rate and emission reduction, as appropriate, of the pollutant(s) controlled by the respective control equipment shall be reported for each day of control equipment operation.
 - (4) The data collection shall be conducted under representative operating conditions and maintenance conditions.
 - (5) Not later than 14 days prior to the data collection start date(s), the permittee shall submit a notification to the Ohio EPA Northeast District Office.
 - (6) A comprehensive written report on the results of the data collection shall be signed by the person or persons responsible for the data collection and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the data collection. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

19. **MACT Rule(s) Applicability - The permittee shall comply with the applicable provisions of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, as promulgated by the United States Environmental Protection Agency under 40 CFR Part 63, Subpart DDDDD. The final rules found in 40 CFR Part 63, Subpart DDDDD establish national emission standards for hazardous air pollutants (NESHAP), operational limits, work practice standards, and compliance requirements for industrial, commercial, and institutional boilers located at a major source of hazardous air pollutants (HAP). The permittee shall comply with the requirements and limits of this NESHAP for the facility's new (commenced construction after 6/04/2010) boilers by January 31, 2013, or upon startup, whichever is later; and the facility's existing boilers shall be in compliance with 40 CFR Part 63, Subpart DDDDD no later than January 31, 2016.**

[Authority for term: 40 CFR 63.6(b)(2), 40 CFR 63.7485, 40 CFR 63.7490 and 40 CFR 63.7495]

20. The terms in this permit identify the requirements of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) contained in 40 CFR Part 63, Subpart DDDDD and are meant to help the permittee maintain compliance with this NESHAP. The requirements of this Subpart apply to the facility's boilers and process heaters according to their applicable subcategory, as identified in 40 CFR 63.7499 and as defined in 40 CFR 63.7575.

[Authority for term: 40 CFR Part 63, Subpart DDDDD]

21. The following boiler(s) are designed to only burn gas 1 fuels (subcategory) and therefore are not subject to the emission limits in Table 2 of the subpart or the operating limits in Table 4 to the subpart. However, the boiler(s) are subject to tune-ups requirements, conducted in accordance with 40 CFR 63.7540(a)(10)(i) through (vi) and Table 3 to the subpart; and the existing boilers must be included in the one-time energy assessment, performed in accordance with Table 3 #4 of the subpart: B001 and B002.

[Authority for term: 40 CFR 63.7500(e) and 40 CFR 63.7540(a)(10) through (13)]

22. Requirements for Insignificant Emissions Units

a) The following insignificant emissions units are located at this facility:

Permit to Install No.	EU ID	Operations, Property and/or Equipment Description
02-4768	B001	Boiler no. 2: 5.2 mmBtu/hr natural gas fired boiler.
02-4768	B002	Boiler no. 3: 5.2 mmBtu/hr natural gas fired boiler.
02-16640	T001	23,500-gallon storage tank for carbon disulfide submerged under water.
02-16640	T002	23,500-gallon storage tank for carbon disulfide submerged under water.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within the identified permit-to-install for the emissions unit. The insignificant emissions units listed above are subject to one or more applicable requirements contained in a permit-to-install or in the SIP approved versions of OAC Chapters 3745-17, 3745-18, 3745-21, and 3745-31, and/or 40 CFR Part 60 or 63.

[Authority for term: OAC rule 3745-77-07(A)(13)]

23. Miscellaneous Requirements

a) Emissions units P020 and P021, trickling tower nos. 1 & 2, respectively, meet the specifications of paragraph (M)(3)(a) of OAC rule 3745-21-07, and shall be equipped with a control system (i.e., capture and control equipment) that reduces the organic compound emissions from the article, machine, equipment or other contrivance by an overall control efficiency of at least eighty-five per cent (85%), by weight.

The emission limitation specified by OAC rule 3745-21-07(M)(2) is more stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) for the following emissions units: P001 through P004; P007 through P017; and P020 through P023.

[Authority for term: OAC rule 3745-21-07]



Draft Title V Permit

3M Elyria

Permit Number: P0116058

Facility ID: 0247040822

Effective Date: To be entered upon final issuance

C. Emissions Unit Terms and Conditions



1. P007, Sponge Block Line

Operations, Property and/or Equipment Description:

Sponge block line: 8 cook stations convert sponge mass into the sponge product with an enclosure to route exhaust gases to a bio-filtration system to control volatile organic compound (VOC) and hydrogen sulfide (H₂S) emissions. Uncaptured emissions and treatment and wash station gases exhaust through the ventilation stack.

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 3745-21-07(M)(3)(d), (d)(i) and (d)(iii)	This emissions unit is not subject to the requirements of paragraphs (M)(3)(a) and (M)(3)(b) of this rule, provided that the organic compound emissions from the emissions unit is controlled by means of a biofiltration system or a packed bed scrubber which are maintained in accordance with the requirements pursuant to OAC rule 3745-31-05(A)(3).
b.	OAC rule 3745-31-05(A)(3)	<p>Volatile organic compounds (VOC) emissions shall not exceed 25.88 lbs/hr and 113.34 tons/yr. See B.2.b) through B.2.e) and B.3.a) through B.3.c).</p> <p>Hydrogen sulfide (H₂S) emissions shall not exceed 0.12 lb/hr and 0.53ton/yr. See B.2.b) through B.2.e) and B.3.a) through B.3.c).</p>
c.	OAC rule 3745-31-05(F) Voluntary Restriction to Limit Potential Emissions	<p>VOC emissions shall not exceed 222.5 tons/yr from the facility. See B.5.a).</p> <p>H₂S emissions shall not exceed 9.95 tons/yr from the facility. See B.5.b).</p>
d.	40 CFR Part 63, Subpart UUUU (40 CFR 63.5480 – 63.5610)	See b)(2)a and b)(2)b.

e.	40 CFR 63.1 – 63.15 (40 CFR Part 63, Subpart UUUU Table 10)	Table 10 of Subpart UUUU of 40 CFR Part 63 - General Provisions Applicability to Subpart UUUU which shows which parts of the General Provisions in 40 CFR 63.1 – 63.15 apply.
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(2) Additional Terms and Conditions

- a. As required in 40 CFR §63.5505(a), the permittee must meet the appropriate emission limits and work practice standards in Table 1 to 40 CFR Part 63, Subpart UUUU. See B.9.a) through B.9.e).
- b. As required in 40 CFR §63.5505(b), the permittee must meet the appropriate operating limits in Table 2 to 40 CFR Part 63, Subpart UUUU. See B.9.f) through B.9.h).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

c) Operational Restrictions

- (1) The capture and control systems for VOC and H₂S emissions shall be operated in accordance with the requirements specified in B.3.a) through B.3.c.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

d) Monitoring and/or Recordkeeping Requirements

- (1) See B.4.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) See B.6.

[Authority for term: OAC rule 3745-31-05(F)]

- (3) See B.10, B.11 and B.13.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

e) Reporting Requirements

- (1) See B.7.a) and B.7.a)(1) through (7).

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) See B.7.b), b)(1) and (2).

[Authority for term: OAC rule 3745-31-05(F)]

(3) See B.14 and B.14.a) through g).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

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:

VOC emissions shall not exceed 25.88 lbs/hr.

Applicable Compliance Method:

Compliance may be based on the following equations:

i. Determination of the maximum, controlled hourly VOC emissions from the cooking stations:

$$\text{VOC(lb/hr)}_{\text{COOKING}} = \text{VOC}_{\text{CAPT\&CONTRL}} + \text{VOC}_{\text{UNCTRL VENT}}$$

$$= [(\text{VOC}_{\text{UNCTRL COOKING}} \times \text{CAPE} \times (1 - \text{CE})) + [\text{VOC}_{\text{UNCTRL COOKING}} \times (1 - \text{CAPE})].$$

where:

$\text{VOC(lb/hr)}_{\text{COOKING}}$ = the maximum, controlled hourly VOC emissions from the cooking process, which were estimated to be 13.63 lbs VOC/hr;

$\text{VOC}_{\text{UNCTRL COOKING}}$ = the maximum, uncontrolled hourly VOC emissions from the cooking process which was estimated to be 63.087 lbs $\text{VOC}_{\text{UNCTRL/hr}}$;

$$\text{VOC}_{\text{UNCTRL COOKING}} = [(\text{CS}_2 + \text{COS})_{\text{CAPT}} \times \text{N}_{\text{COOK STATIONS}}] / \text{CAPE} \times 1.15$$

$\text{CS}_{2\text{CAPT}}$ = the uncontrolled hourly carbon disulfide emissions which were determined to be 6.71 lbs $\text{CS}_2_{\text{UNCTRL/hr}}$ from exhaust gas testing of one sponge block equipment area associated with (P007) sponge block line via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

COS_{CAPT} = the uncontrolled hourly carbonyl sulfide emissions which were determined to be 1.01×10^{-2} lb $\text{COS}_{\text{UNCTRL/hr}}$ from exhaust gas testing of one sponge block equipment area associated with (P007) sponge block line via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

$\text{N}_{\text{COOK STATIONS}}$ = maximum number of cook stations in active operation is eight (8) as stated in the application for PTI P0116058;

CAPE = the efficiency of the capture device as specified for the enclosure system, which is 98% or 0.98 as stated in the application for PTI P0116058;

1.15 = the “safety” factor of 115% which is included for a conservative estimate; and

CE = the minimum efficiency of the control device (e.g. biofilter system) which must be at least 80% or 0.80, as stated in the application(s) for PTI P0116058.

i. Determination of the maximum, controlled hourly VOC emissions from the acid wash and rinse (water wash) stations:

$$\text{VOC}(\text{lb/hr})_{\text{WASHING}} = \text{VOC}_{\text{CAPT\&CONTRL}} + \text{VOC}_{\text{UNCTRL VENT}}$$

$$= [(\text{VOC}_{\text{UNCTRL WASHING}} \times \text{CAPE} \times (1 - \text{CE})) + [\text{VOC}_{\text{UNCTRL WASHING}} \times (1 - \text{CAPE})]$$

where:

$\text{VOC}(\text{lb/hr})_{\text{WASHING}}$ = the maximum, controlled hourly VOC emissions from the washing/rinsing process(es), which were estimated to be 1.29 lbs VOC/hr;

$$\text{VOC}_{\text{UNCTRL WASHING}} = [(\text{CS}_2 + \text{COS})_{\text{CAPT}} \times 1.15] / \text{CAPE} \times 1.25$$

$\text{VOC}_{\text{UNCTRL WASHING}}$ = the maximum, uncontrolled hourly VOC emissions which was estimated to be 4.61 lbs $\text{VOC}_{\text{UNCTRL}}/\text{hr}$;

$\text{CS}_{2\text{CAPT}}$ = the uncontrolled hourly carbon disulfide emissions which were determined to be 2.85 lbs $\text{CS}_2_{\text{UNCTRL}}/\text{hr}$ from exhaust gas testing of three acid wash/rinse areas associated with (P007) sponge block line via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 30, 2010;

COS_{CAPT} = the uncontrolled hourly carbonyl sulfide emissions which were determined to be 3.84×10^{-2} lb $\text{COS}_{\text{UNCTRL}}/\text{hr}$ from exhaust gas testing of three acid wash/rinse areas associated with (P007) sponge block line from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 30, 2010;

CAPE = the efficiency of the capture device as specified for the enclosure system, which is 90% or 0.90 as stated in the application for PTI P0116058;

1.15 = the “safety” factor of 115% which is included for a conservative estimate;

1.25 = correction of maximum block washing rate divided by the actual rate during the test period; and

CE = the minimum efficiency of the control device (e.g. biofilter system) which must be at least 80% or 0.80, as stated in the application(s) for P0116058.

ii. Determination of the maximum, controlled hourly VOC emissions from the cooking stations and acid wash/rinse areas, combined:



$$\text{VOC(lb/hr)}_{\text{TOTAL}} = \text{VOC(lb/hr)}_{\text{COOKING}} + \text{VOC(lb/hr)}_{\text{WASHING}}$$

where:

$\text{VOC(lb/hr)}_{\text{TOTAL}}$ = the maximum, controlled hourly VOC emissions from the cooking stations and acid wash/rinse areas, combined, which was estimated to be 14.92 lbs VOC/hr.

If required, the permittee shall demonstrate compliance with the emissions limitation(s) through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, 15 and Method 204, specified in 40 CFR Part 51, Appendix M. Method 320, 40 CFR Part 63, Appendix A may be employed as an alternative to Method 15. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-31-05(A)(3)]

b. Emission Limitation:

H₂S emissions shall not exceed 0.12 lb/hr.

Applicable Compliance Method:

Compliance may be based on the following equations:

- i. Determination of the maximum, controlled hourly H₂S emissions from the cooking stations:

$$\begin{aligned} \text{H}_2\text{S(lb/hr)}_{\text{COOKING}} &= \text{H}_2\text{S}_{\text{CAPT\&CONTRL}} + \text{H}_2\text{S}_{\text{UNCTRL VENT}} \\ &= [(\text{H}_2\text{S}_{\text{UNCTRL COOKING}} \times \text{CAPE} \times (1 - \text{CE}))] + [\text{H}_2\text{S}_{\text{UNCTRL COOKING}} \times (1 - \text{CAPE})] \end{aligned}$$

where:

$\text{H}_2\text{S(lb/hr)}_{\text{COOKING}}$ = the maximum, controlled hourly H₂S emissions from the cooking process, which were estimated to be 3.88 x 10⁻³ lbs H₂S/hr;

$\text{H}_2\text{S}_{\text{UNCTRL COOKING}}$ = the maximum, uncontrolled hourly H₂S emissions from the cooking process which was estimated to be 5.63 x 10⁻²lb H₂S_{UNCTRL}/hr;

$$\text{H}_2\text{S}_{\text{UNCTRL COOKING}} = [(\text{H}_2\text{S})_{\text{CAPT}} \times \text{N}_{\text{COOK STATIONS}}]/\text{CAPE} \times 1.15$$

$\text{H}_2\text{S}_{\text{CAPT}}$ = the uncontrolled hourly hydrogen sulfide emissions which were determined to be 6.0 x 10⁻³ lb H₂S_{UNCTRL}/hr from exhaust gas testing of one sponge block equipment area associated with (P007) sponge block line via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

$\text{N}_{\text{COOK STATIONS}}$ = maximum number of cook stations in active operation is eight (8) as stated in the application for PTI P0116058;

CAPE = the efficiency of the capture device as specified for the enclosure system, which is 98% or 0.98 as stated in the application for PTI P0116058;

1.15 = the “safety” factor of 115% which is included for a conservative estimate; and

CE = the minimum efficiency of the control device (e.g. biofilter system) which is at least 95% or 0.95, as stated in the application(s) for PTI P0116058.

ii. Determination of the maximum, controlled hourly H₂S emissions from the acid wash and rinse (water wash) stations:

$$H_2S(\text{lb/hr})_{\text{WASHING}} = H_2S_{\text{CAPT\&CONTRL}} + H_2S_{\text{UNCTRL VENT}}$$

$$= [(H_2S_{\text{UNCTRL WASHING}} \times \text{CAPE} \times (1 - \text{CE}))] + [H_2S_{\text{UNCTRL WASHING}} \times (1 - \text{CAPE})]$$

where:

H₂S(lb/hr)_{WASHING} = the maximum, controlled hourly H₂S emissions from the washing/rinsing process(es), which were estimated to be 1.74 x 10⁻² lb H₂S/hr;

$$H_2S_{\text{UNCTRL WASHING}} = [(H_2S)_{\text{CAPT}} \times 1.15] / \text{CAPE} \times 1.25$$

H₂S_{UNCTRL WASHING} = the maximum, uncontrolled hourly H₂S emissions which was estimated to be 0.12 lb H₂S_{UNCTRL}/hr;

H₂S_{CAPT} = the uncontrolled hourly hydrogen sulfide emissions which were determined to be 7.32 x 10⁻² lb H₂S_{UNCTRL}/hr from exhaust gas testing of three acid wash/rinse areas associated with (P007) sponge block line via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 30, 2010;

CAPE = the efficiency of the capture device as specified for the enclosure system, which is 90% or 0.90 as stated in the application for PTI P0116058;

1.15 = the “safety” factor of 115% which is included for a conservative estimate;

1.25 = correction of maximum block washing rate divided by the actual rate during the test period; and

CE = the minimum efficiency of the control device (e.g. biofilter system) which may be 95% or 0.90, as stated in the P0116058.

iii. Determination of the maximum, controlled hourly H₂S emissions from the cooking stations and acid wash/rinse areas, combined.

$$H_2S(\text{lb/hr})_{\text{TOTAL}} = H_2S(\text{lb/hr})_{\text{COOKING}} + H_2S(\text{lb/hr})_{\text{WASHING}}$$

where:

$H_2S(lb/hr)_{TOTAL}$ = the maximum, controlled hourly H_2S emissions from the cooking stations and acid wash/rinse areas, combined, which was estimated to be 2.13×10^{-2} lb H_2S/hr .

If required, the permittee shall demonstrate compliance with the emissions limitation(s) through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 15 (ALT-074) modification; and Method 204, specified in 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The ALT-074 modification to Method 15 from 40 CFR Part 60, Appendix A for low concentrations of H_2S was approved by U.S. EPA in an April 29, 2010 letter and allows composite exhaust gas sample collection while maintaining the samples at a temperature 10 degrees warmer than the exhaust gas stack temperature and analysis within 24 hours of collection. This ALT-074 modification to Method 15 was approved for all similar facilities in the cellulose products manufacturing source category subject to 40 CFR Part 63, Subpart UUUU.

[Authority for term: OAC rule 3745-31-05(A)(3)]

c. Emission Limitation:

VOC emissions shall not exceed 113.34 tons/yr.

H_2S emissions shall not exceed 0.53 ton/yr.

Applicable Compliance Method:

The VOC tons/yr emission limitation was developed by multiplying the short-term allowable VOC emission limitation (25.88 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

The H_2S tons/yr emission limitation was developed by multiplying the short-term allowable H_2S emission limitation (0.12 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

[Authority for term: OAC rule 3745-31-05(A)(3)]

g) Miscellaneous Requirements

- (1) P007 was installed circa 1/01/1994 and is not eligible for the Ohio Best Available Technology exemption (the less than 10 tons per year BAT exemption) per OAC paragraph 3745-31-05(A)(3)(a)(ii).

2. P011, Viscose Blending System

Operations, Property and/or Equipment Description:

Viscose blending system: a series of four blenders with a bio-filtration system to control volatile organic compound (VOC) emissions.

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)(4)

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 3745-21-07(M)(3)(c)(ii)	This emissions unit is not subject to the requirements of paragraphs (M)(3)(a) and (M)(3)(b) of this rule because it has an uncontrolled potential to emit for organic compound emissions that does not exceed forty pounds per day.
b.	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 0.235 lb/hr and 1.03 tons/yr. See B.2.b) through B.2.e) and B.3.a) through B.3.c).
c.	OAC rule 3745-31-05(F) Voluntary Restriction to Limit Potential Emissions	VOC emissions shall not exceed 222.5 tons/yr from the facility. See B.5.a). Hydrogen sulfide (H ₂ S) emissions shall not exceed 9.95 tons/yr from the facility. See B.5.b).
d.	40 CFR Part 63, Subpart UUUU (40 CFR 63.5480 – 63.5610)	See b)(2)a and b)(2)b.
e.	40 CFR 63.1 – 63.15	Table 10 of Subpart UUUU of 40 CFR Part 63 - General Provisions Applicability to Subpart UUUU which shows which parts of the General Provisions in 40 CFR 63.1 – 63.15 apply.

(2) Additional Terms and Conditions

- a. As required in 40 CFR §63.5505(a), the permittee must meet the appropriate emission limits and work practice standards in Table 1 to 40 CFR Part 63, Subpart UUUU. See B.9.a) through B.9.e).
- b. As required in 40 CFR §63.5505(b), the permittee must meet the appropriate operating limits in Table 2 to 40 CFR Part 63, Subpart UUUU. See B.9.f) through B.9.h).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

c) Operational Restrictions

- (1) The capture and control systems for VOC and H₂S emissions shall be operated in accordance with the requirements specified in B.3.a) through B.3.c).

[Authority for term: OAC rule 3745-31-05(A)(3)]

d) Monitoring and/or Recordkeeping Requirements

- (1) See B.4.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) See B.6.

[Authority for term: OAC rule 3745-31-05(F)]

- (3) See B.10, B.11 and B.13.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

- (4) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, is subject to a federal Maximum Achievable Control Technology standard (e.g. 40 CFR Part 63, Subpart UUUU) that restricts the amounts of pollutants that could be released. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

[Authority for term: ORC 3704.03(F)(4)(b) and (e)]

e) Reporting Requirements

- (1) See B.7.a) and B.7.a)(1) through (7).

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) See B.7.b), B.7.b)(1) and b)(2).

[Authority for term: OAC rule 3745-31-05(F)]

- (3) See B.14 and B.14.a) through g).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

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:

VOC emissions shall not exceed 0.235 lb/hr.

Applicable Compliance Method:

Compliance may be based on the following equations:

- i. Determination of the maximum, uncontrolled hourly VOC emissions from the viscose blending system:

$$VOC_{UNCTRL} = [(CS_2 + COS)_{CAPT}]/CAPE \times 1.15$$

where:

VOC_{UNCTRL} = the maximum, uncontrolled hourly VOC emissions which was estimated to be 1.176 lbs VOC_{UNCTRL}/hr ;

CS_{2CAPT} = the uncontrolled hourly carbon disulfide emissions which were determined to be 1.02 lbs CS_2_{UNCTRL}/hr from exhaust gas testing of blender no. 1 a process equipment associated with (P011) viscose blending system via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 27, 2010;

COS_{CAPT} = the uncontrolled hourly carbonyl sulfide emissions which were determined to be 2.2×10^{-3} lb COS_{UNCTRL}/hr from exhaust gas testing of blender no. 1 a process equipment associated with (P011) viscose blending system via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 27, 2010;

CAPE = the efficiency of the capture device as specified for the enclosure system, which is 100% or 1.0 as stated in the application for PTI P0109808; and



1.15 = the "safety" factor of 115% which is included for a conservative estimate.

- ii. Determination of the maximum, controlled hourly VOC emissions from the viscose blending system:

$$\begin{aligned} \text{VOC(lb/hr)} &= \text{VOC}_{\text{CAPT\&CONTRL}} + \text{VOC}_{\text{UNCTRL VENT}} \\ &= [\text{VOC}_{\text{UNCTRL}} \times \text{CAPE} \times (1 - \text{CE})] + [\text{VOC}_{\text{UNCTRL}} \times (1 - \text{CAPE})] \end{aligned}$$

where:

VOC(lb/hr) = the maximum, controlled hourly VOC emissions, which were estimated to be 0.235 lb VOC/hr; and

CE = the minimum efficiency of the control device (e.g. biofilter system) which must be at least 80% or 0.80, as stated in the application(s) for PTI P0109808.

If required, the permittee shall demonstrate compliance with the emissions limitation(s) through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, 15 and Method 204, specified in 40 CFR Part 51, Appendix M. Method 320, 40 CFR Part 63, Appendix A may be employed as an alternative to Method 15. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- b. Emission Limitation:

VOC emissions shall not exceed 1.03 tons/yr.

Applicable Compliance Method:

The tons/yr emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.235 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- g) Miscellaneous Requirements

- a. P011 was installed circa 6/01/1990 and is not eligible for the Ohio Best Available Technology exemption (the less than 10 tons per year BAT exemption) per OAC paragraph 3745-31-05(A)(3)(a)(ii).

3. P018, Anhydrous Sodium Sulfate Silo

Operations, Property and/or Equipment Description:

6,750 cubic feet silo for storage of anhydrous sodium sulfate: pneumatic unloading from a tanker truck into the silo with a baghouse to control particulate emissions.

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)(4)

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 3745-17-07(A)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). See b)(2)a.
b.	OAC rule 3745-17-11(B)(1)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). See b)(2)a.
c.	OAC rule 3745-31-05(A)(3)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 5% opacity as a 6-minute average. See b)(2)a. Particulate emissions (PE) from this emissions unit shall not exceed 0.016 lb/hr and 0.0031 ton/yr. See b)(2)a.

(2) Additional Terms and Conditions

a. The permittee shall employ the following best available control measures for the above-identified silo for the purpose of ensuring compliance with the above-mentioned applicable requirements:

i. Materials shall be transferred pneumatically to the silo. The pneumatic system shall be adequately enclosed so as to eliminate at all times visible

emissions of fugitive dust. Any visible emissions of dust emanating from the delivery vehicle during transfer shall be cause for the immediate halt of the unloading process and the refusal of the materials load until the situation is corrected.

- ii. The silo vent shall be adequately enclosed and vented to a baghouse. The enclosure shall be sufficient so as to eliminate at all times visible emissions of fugitive dust at the point of capture.

[Authority for term: OAC rule 3745-31-05(A)(3)]

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform one check during each tanker unloading and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (3) The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop, in inches of water, across the baghouse during each tanker unloading. The permittee shall record the pressure drop across the baghouse once during each tanker unloading. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range is

established to demonstrate compliance. The pressure drop readings shall be recorded in an operations log.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

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

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-31-05(A)(3)]

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

[Authority for term: ORC 3704.03(F)(3)(c) and F(4)]

e) Reporting Requirements

- (1) The permittee shall submit semiannual written reports that identify:

- a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
- b. any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

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.

[Authority for term: OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-31-05(A)(3)]

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

- a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the range specified by the manufacturer or outside of the acceptable range following any required compliance demonstration;
- b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
- c. each incident of deviation described in e)(2)a where a prompt investigation was not conducted;
- d. each incident of deviation described in e)(2)a where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and



- e. each incident of deviation described in e)(2)a where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

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

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.

[Authority for term: OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-31-05(A)(3)]

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 stack serving this emissions unit shall not exceed 5% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- b. Emission Limitation:

PE from this emissions unit shall not exceed 0.016 lb/hr.

Applicable Compliance Method:

Compliance may be based on the following equation(s):

$$PE(HR) = lbs_{FEED}/delivery \times delivery/hrs \times ton_{FEED}/2000 lbs_{FEED} \times EF \times (1 - CE)$$

where:

PE(HR) = the maximum, controlled PE rate from the anhydrous sodium sulfate unloading of the tanker truck and was estimated to be 0.016 lb PE/hr;

lbs_{FEED}/delivery = the maximum tanker load, in lbs of feed per delivery, as stated in the application(s) for PTI P0109808;



Effective Date: To be entered upon final issuance

Delivery/hrs = the inverse of the time to unload the maximum load, in units of (hours/delivery)⁻¹ as stated in the application(s) for PTI P0109808;

EF_{PE} = the factor for uncontrolled pollutant emissions, which is 5.2 lbs PM_{UNCTRL}/ton_{FEED} from Table 8.12-3, AP42 Chap. 8.12 (7/1993) for an unloading operation at a sodium carbonate production plant. [Values for uncontrolled total particulate matter can be assumed to include filterable particulate and both organic and inorganic condensable particulate. The factors for uncontrolled pollutant PM₁₀ emissions and PM_{2.5} emissions are assumed to be the same as for total particulate matter emissions.]; and

CE = control efficiency of the baghouse control device, which is 0.9998 (99.98%) as specified in the application for PTI P0109808.

[Authority for term: OAC rule 3745-31-05(A)(3)]

c. Emission Limitation:

PE from this emissions unit shall not exceed 0.0031 ton/yr.

Applicable Compliance Method:

Compliance may be based on the following equation(s):

$$PE(YR) = PE(HR) \times \text{hrs/delivery} \times \text{deliveries/week} \times 52 \text{ weeks/yr}$$

x ton PE/2000 lbs PE

where:

hrs/delivery = the time, in hours, to unload the maximum load as stated in the application(s) for PTI P0109808; and

deliveries/week = the maximum deliveries per week, as stated in the application(s) for PTI P0109808.

[Authority for term: OAC rule 3745-31-05(A)(3)]

g) **Miscellaneous Requirements**

- a. P018 was installed circa 1/01/1993 and is not eligible for the Ohio Best Available Technology exemption (the less than 10 tons per year BAT exemption) per OAC paragraph 3745-31-05(A)(3)(a)(ii).

4. P022, Wastewater Pit

Operations, Property and/or Equipment Description:

Wastewater pit: a sump for the collection of wastewater from the rinse stations associated with the sponge cooking lines and other miscellaneous sources. Captured emissions are sent to a bio-filtration system to control volatile organic compound (VOC) and hydrogen sulfide (H₂S) emissions. Uncaptured emissions are exhausted through the ventilation stack.

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)(4)

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 3745-21-07(M)(3)(c)(ii)	This emissions unit is not subject to the requirements of paragraphs (M)(3)(a) and (M)(3)(b) of this rule because it has an uncontrolled potential to emit for organic compound emissions that does not exceed forty pounds per day.
b.	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 0.22 lb/hr and 0.96 ton/yr. See B.2.b) through B.2.e) and B.3.a) through B.3.c). Hydrogen sulfide (H ₂ S) emissions shall not exceed 0.015 lb/hr and 0.066 ton/yr. See B.2.b) through B.2.e) and B.3.a) through B.3.c).
c.	OAC rule 3745-31-05(F) Voluntary Restrictions to Limit Potential Emissions	VOC emissions shall not exceed 222.5 tons/yr from the facility. See B.5.a). H ₂ S emissions shall not exceed 9.95 tons/yr from the facility. See B.5.b).
d.	40 CFR Part 63, Subpart UUUU (40 CFR 63.5480 – 63.5610)	See b)(2)a and b)(2)b.
e.	40 CFR 63.1 – 63.15	Table 10 of Subpart UUUU of 40 CFR Part 63 - General Provisions Applicability to Subpart UUUU which shows which parts of the General Provisions in 40 CFR 63.1 – 63.15 apply.

(2) Additional Terms and Conditions

- a. As required in 40 CFR §63.5505(a), the permittee must meet the appropriate emission limits and work practice standards in Table 1 to 40 CFR Part 63, Subpart UUUU. See B.9.a) through B.9.e).
- b. As required in 40 CFR §63.5505(b), the permittee must meet the appropriate operating limits in Table 2 to 40 CFR Part 63, Subpart UUUU. See B.9.f) through B.9.h).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

c) Operational Restrictions

- (1) The capture and control systems for VOC and H₂S emissions shall be operated in accordance with the requirements specified in B.3.a) through B.3.c).

[Authority for term: OAC rule 3745-31-05(A)(3)]

d) Monitoring and/or Recordkeeping Requirements

- (1) See B.4.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) See B.6.

[Authority for term: OAC rule 3745-31-05(F)]

- (3) See B.10, B.11 and B.13.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

- (4) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year and is subject to a federal Maximum Achievable Control Technology standard (e.g. 40 CFR Part 63, Subpart UUUU) that restricts the amounts of pollutants that could be released. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

[Authority for term: ORC 3704.03(F)(4)(b) and (e)]

e) Reporting Requirements

- (1) See B.7.a) and B.7.a)(1) through (7).

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) See B.7.b), B.7.b)(1) and b)(2).

[Authority for term: OAC rule 3745-31-05(F)]

- (3) See B.14 and B.14.a) through g).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

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:

VOC emissions shall not exceed 0.22 lb/hr.

Applicable Compliance Method:

Compliance may be based on the following equations:

- i. Determination of the maximum, uncontrolled hourly VOC emissions from the wastewater pit:

$$\text{VOC}_{\text{UNCTRL}} = [(\text{CS}_2 + \text{COS})_{\text{CAPT}}] / \text{CAPE} \times 1.15$$

where:

$\text{VOC}_{\text{UNCTRL}}$ = the maximum, uncontrolled hourly VOC emissions which was estimated to be 0.298 lb $\text{VOC}_{\text{UNCTRL}}/\text{hr}$;

$\text{CS}_{2\text{CAPT}}$ = the uncontrolled hourly carbon disulfide emissions which were determined to be 8.38×10^{-2} lb $\text{CS}_2_{\text{UNCTRL}}/\text{hr}$ from exhaust gas testing of the wastewater pit (P022) via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

COS_{CAPT} = the uncontrolled hourly carbonyl sulfide emissions which were determined to be 1.6×10^{-3} lb $\text{COS}_{\text{UNCTRL}}/\text{hr}$ from exhaust gas testing of wastewater pit (P022) viscose blending system via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

CAPE = the efficiency of the capture device as specified for the enclosure system, which is 33% or 0.33 as stated in the application for PTI P0109808; and

1.15 = the “safety” factor of 115% which is included for a conservative estimate.

- ii. Determination of the maximum, controlled hourly VOC emissions from the wastewater pit:

$$\text{VOC(lb/hr)} = \text{VOC}_{\text{CAPT\&CONTRL}} + \text{VOC}_{\text{UNCTRL VENT}}$$

$$= [\text{VOC}_{\text{UNCTRL}} \times \text{CAPE} \times (1 - \text{CE})] + [\text{VOC}_{\text{UNCTRL}} \times (1 - \text{CAPE})]$$

where:

VOC(lb/hr) = the maximum, controlled hourly VOC emissions, which were estimated to be 0.22 lb VOC/hr; and

CE = the minimum efficiency of the control device (e.g. biofilter system) which must be at least 80% or 0.80, as stated in the application(s) for PTI P0109808.

If required, the permittee shall demonstrate compliance with the emissions limitation(s) through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, 15 and Method 204, specified in 40 CFR Part 51, Appendix M. Method 320, 40 CFR Part 63, Appendix A may be employed as an alternative to Method 15. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- b. Emission Limitation

H₂S emissions shall not exceed 0.015 lb/hr.

Applicable Compliance Method:

Compliance may be based on the following equations:

- i. Determination of the maximum, uncontrolled hourly H₂S emissions from the wastewater pit:

$$\text{H}_2\text{S}_{\text{UNCTRL}} = \text{H}_2\text{S}_{\text{CAPT}}/\text{CAPE} \times 1.15$$

where:

H₂S_{UNCTRL} = the maximum, uncontrolled hourly H₂S emissions which was estimated to be 2.16 x 10⁻² lbs H₂S/hr;

H_2S_{CAPT} = the uncontrolled hourly H_2S emissions which was determined to be 6.2×10^{-3} lbs H_2S/hr from exhaust gas testing of (P022) wastewater pit via U.S. EPA Methods 1 through 4 and Method 15 (ALT-074) modification from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

CAPE = the efficiency of the capture device as specified for the enclosure system, which is 33% or 0.33 as stated in the application for PTI P0109808; and

1.15 = the “safety” factor of 115% which is included for a conservative estimate.

- ii. Determination of the maximum, controlled hourly H_2S emissions from the cooking station and acid wash and rinse (water wash) stations:

$$\begin{aligned}
 H_2S(\text{lb/hr}) &= H_2S_{CAPT\&CONTRL} + H_2S_{UNCTRL\ VENT} \\
 &= [H_2S_{UNCTRL} \times CAPE \times (1 - CE)]_{CAPT\&CONTRL} \\
 &+ [H_2S_{UNCTRL} \times (1 - CAPE)]_{UNCTRL\ VENT}
 \end{aligned}$$

where:

$H_2S(\text{lb/hr})$ = the maximum, controlled hourly H_2S emissions, which was estimated to be 1.5×10^{-2} lb H_2S/hr ; and

CE = the minimum efficiency of the control device (e.g. biofilter system) which must be at least 95% or 0.95, as stated in the application(s) for PTI P0109808.

If required, the permittee shall demonstrate compliance with the emission limitation(s) through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 15 (ALT-074) modification; and Method 204, specified in 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The ALT-074 modification to Method 15 from 40 CFR Part 60, Appendix A for low concentrations of H_2S was approved by U.S. EPA in an April 29, 2010 letter and allows composite exhaust gas sample collection while maintaining the samples at a temperature 10 degrees warmer than the exhaust gas stack temperature and analysis within 24 hours of collection. This ALT-074 modification to Method 15 was approved for all similar facilities in the cellulose products manufacturing source category subject to 40 CFR Part 63, Subpart UUUU.

[Authority for term: OAC rule 3745-31-05(A)(3)]

c. Emission Limitation:

VOC emissions shall not exceed 0.96 ton/yr.

H₂S emissions shall not exceed 0.066 ton/yr.

Applicable Compliance Method:

The VOC ton/yr emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.22 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

The H₂S ton/yr emission limitation was developed by multiplying the short-term allowable H₂S emission limitation (0.015 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

[Authority for term: OAC rule 3745-31-05(A)(3)]

g) Miscellaneous Requirements

- a. P022 was installed circa 6/01/1990 and is not eligible for the Ohio Best Available Technology exemption (the less than 10 tons per year BAT exemption) per OAC paragraph 3745-31-05(A)(3)(a)(ii).

5. P023, Reclaim Salt Pit

Operations, Property and/or Equipment Description:

Reclaim salt pit: a sump for the collection of wastewater from the treatment stations associated with the sponge cooking lines. Captured emissions are sent to a bio-filtration system to control volatile organic compound (VOC) and hydrogen sulfide (H₂S) emissions. Uncaptured emissions are exhausted through the ventilation stack.

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)(4)

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 3745-21-07(M)(3)(c)(ii)	This emissions unit is not subject to the requirements of paragraphs (M)(3)(a) and (M)(3)(b) of this rule because it has an uncontrolled potential to emit for organic compound emissions that does not exceed forty pounds per day.
b.	OAC rule 3745-31-05(A)(3)	Volatile organic compounds (VOC) emissions shall not exceed 0.40 lb/hr and 1.74 tons/yr. See B.2.b) through B.2.e) and B.3.a) through B.3.c). Hydrogen sulfide (H ₂ S) emissions shall not exceed 0.028 lb/hr and 0.12 ton/yr. See B.2.b) through B.2.e) and B.3.a) through B.3.c).
c.	OAC rule 3745-31-05(F) Voluntary Restrictions to Limit Potential Emissions	VOC emissions shall not exceed 222.5 tons/yr from the facility. See B.5.a) H ₂ S emissions shall not exceed 9.95 tons/yr from the facility. See B.5.b).
d.	40 CFR Part 63, Subpart UUUU (40 CFR 63.5480 – 63.5610)	See b)(2)a and b)(2)b.
e.	40 CFR 63.1 – 63.15	Table 10 of Subpart UUUU of 40 CFR Part 63 - General Provisions Applicability to Subpart UUUU which shows which parts of the General Provisions in 40 CFR 63.1 – 63.15 apply.

(2) Additional Terms and Conditions

- a. As required in 40 CFR §63.5505(a), the permittee must meet the appropriate emission limits and work practice standards in Table 1 to 40 CFR Part 63, Subpart UUUU. See B.9.a) through B.9.e).
- b. As required in 40 CFR §63.5505(b), the permittee must meet the appropriate operating limits in Table 2 to 40 CFR Part 63, Subpart UUUU. See B.9.f) through B.9.h).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

c) Operational Restrictions

- (1) The capture and control systems for VOC and H₂S emissions shall be operated in accordance with the requirements specified in B.3.a) through B.3.c).

[Authority for term: OAC rule 3745-31-05(A)(3)]

d) Monitoring and/or Recordkeeping Requirements

- (1) See B.4.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) See B.6.

[Authority for term: OAC rule 3745-31-05(F)]

- (3) See B.10, B.11 and B.13.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

- (4) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions increase for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year and/or is subject to a federal Maximum Achievable Control Technology standard (e.g. 40 CFR Part 63, Subpart UUUU) that restricts the amounts of pollutants that could be released. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

[Authority for term: ORC 3704.03(F)(4)(b) and (e)]

e) Reporting Requirements

- (1) See B.7.a) and B.7.a)(1) through (7).

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) See B.7.b), B.7.b)(1) and b)(2).

[Authority for term: OAC rule 3745-31-05(F)]

- (3) See B.14 and B.14.a) through g).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

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:

VOC emissions shall not exceed 0.40 lb/hr.

Applicable Compliance Method:

Compliance may be based on the following equations:

- i. Determination of the maximum, uncontrolled hourly VOC emissions from the reclaim pit:

$$VOC_{UNCTRL} = [(CS_2 + COS)_{CAPT PIT}] / CAPE \times 1.15$$

where:

VOC_{UNCTRL} = the maximum, uncontrolled hourly VOC emissions which was estimated to be 0.458 lb VOC_{UNCTRL} /hr;

CS_{2CAPT} = the uncontrolled hourly carbon disulfide emissions which were determined to be 0.130 lb $CS_{2 UNCTRL}$ /hr from exhaust gas testing of the reclaim pit process associated with P023 via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

COS_{CAPT} = the uncontrolled hourly carbonyl sulfide emissions which were determined to be 1.4×10^{-3} lb COS_{UNCTRL} /hr from exhaust gas testing of the reclaim pit process associated with P023 via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

$CAPE_{PIT}$ = the efficiency of the capture device as specified for the enclosure system, which is 33% or 0.33 as stated in the application for PTI P0109808; and

1.15 = the “safety” factor of 115% which is included for a conservative estimate.

- ii. Determination of the maximum, uncontrolled hourly VOC emissions from the floor drain:

$$VOC_{UNCTRL} = [(CS_2 + COS)_{CAPT DRAIN}] / CAPE \times 1.15$$

where:

VOC_{UNCTRL} = the maximum, uncontrolled hourly VOC emissions which was estimated to be 0.303 lb VOC_{UNCTRL}/hr ;

CS_{2CAPT} = the uncontrolled hourly carbon disulfide emissions which were determined to be 0.263 lb $CS_{2 UNCTRL}/hr$ from exhaust gas testing of the floor drain process associated with P023 via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

COS_{CAPT} = the uncontrolled hourly carbonyl sulfide emissions which were determined to be 8.0×10^{-4} lb COS_{UNCTRL}/hr from exhaust gas testing of the floor drain process associated with P023 via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

$CAPE_{DRAIN}$ = the efficiency of the capture device as specified for the enclosure system, which is 100% or 1.0 as stated in the application for PTI P0109808; and

1.15 = the “safety” factor of 115% which is included for a conservative estimate.

- iii. Determination of the total maximum, uncontrolled hourly VOC emissions:

$$VOC_{UNCTRL TOTAL} = VOC_{UNCTRL RECLAIM PIT} + VOC_{UNCTRL FLOOR DRAIN}$$

where:

$VOC_{UNCTRL TOTAL}$ = the maximum, uncontrolled hourly VOC emissions which was estimated to be 0.76 lb VOC_{UNCTRL}/hr .

- iv. Determination of the maximum, controlled hourly VOC emissions from the wastewater pit:

$$VOC(lb/hr) = [VOC_{UNCTRL PIT} \times CAPE_{PIT} \times (1 - CE)] + [VOC_{UNCTRL PIT} \times (1 - CAPE_{PIT})]$$



$$+ [VOC_{UNCTRL\ DRAIN} \times CAPE_{DRAIN} \times (1 - CE)]$$

where:

VOC(lb/hr) = the maximum, controlled hourly VOC emissions, which were estimated to be 0.40 lb VOC/hr; and

CE = the minimum efficiency of the control device (e.g. biofilter system) which must be at least 80% or 0.80, as stated in the application(s) for PTI P0109808.

If required, the permittee shall demonstrate compliance with the emission limitation(s) through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, 15 and Method 204, specified in 40 CFR Part 51, Appendix M. Method 320, 40 CFR Part 63, Appendix A may be employed as an alternative to Method 15. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-31-05(A)(3)]

b. Emission Limitation

H₂S emissions shall not exceed 0.028 lb/hr.

Applicable Compliance Method:

Compliance may be based on the following equations:

- i. Determination of the maximum, uncontrolled hourly H₂S emissions from the reclaim pit:

$$H_{2S\ UNCTRL} = H_{2S\ CAPT} / CAPE_{PIT} \times 1.15$$

where:

H₂S_{UNCTRL} = the maximum, uncontrolled hourly H₂S emissions which was estimated to be 3.73 x 10⁻² lbs H₂S/hr;

H₂S_{CAPT} = the uncontrolled hourly H₂S emissions which was determined to be 1.07 x 10⁻² lbs H₂S/hr from exhaust gas testing of the reclaim pit process associated with P023 via U.S. EPA Methods 1 through 4 and Method 15 (ALT-074) from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

CAPE_{PIT} = the efficiency of the capture device as specified for the enclosure system, which is 33% or 0.33 as stated in the application for PTI P0109808; and

1.15 = the "safety" factor of 115% which is included for a conservative estimate.

- ii. Determination of the maximum, uncontrolled hourly H₂S emissions from the floor drain:

$$H_2S_{UNCTRL} = H_2S_{CAPT}/CAPE \times 1.15$$

where:

H₂S_{UNCTRL} = the maximum, uncontrolled hourly H₂S emissions which was estimated to be 4.18 x 10⁻² lbs H₂S/hr;

H₂S_{CAPT} = the uncontrolled hourly H₂S emissions which was determined to be 3.63 x 10⁻² lbs H₂S/hr from exhaust gas testing of the floor drain process associated with P023 via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

CAPE_{DRAIN} = the efficiency of the capture device as specified for the enclosure system, which is 100% or 1.0 as stated in the application for PTI P0109808; and

1.15 = the “safety” factor of 115% which is included for a conservative estimate.

- iii. Determination of the total maximum, uncontrolled hourly H₂S emissions:

$$H_2S_{UNCTRL\ TOTAL} = H_2S_{UNCTRL\ RECLAIM\ PIT} + H_2S_{UNCTRL\ FLOOR\ DRAIN}$$

where:

H₂S_{UNCTRL TOTAL} = the maximum, uncontrolled hourly H₂S emissions which was estimated to be 0.0791 lb H₂S_{UNCTRL}/hr.

- iv. Determination of the maximum, controlled hourly H₂S emissions:

$$H_2S(lb/hr) = [H_2S_{UNCTRL\ PIT} \times CAPE_{PIT} \times (1 - CE)] \\ + [H_2S_{UNCTRL\ PIT} \times (1 - CAPE_{PIT})] \\ + [H_2S_{UNCTRL\ DRAIN} \times CAPE_{DRAIN} \times (1 - CE)]$$

where:

H₂S(lb/hr) = the maximum, controlled hourly H₂S emissions, which was estimated to be 2.77 x 10⁻² lb H₂S/hr; and

CE = the minimum efficiency of the control device (e.g. biofilter system) which is at least 95% or 0.95, as stated in the application(s) for PTI P0109808.

If required, the permittee shall demonstrate compliance with the emission limitation(s) through emission tests performed in accordance with the methods

and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 15 (ALT-074) modification; and Method 204, specified in 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The ALT-074 modification to Method 15 from 40 CFR Part 60, Appendix A for low concentrations of H₂S was approved by U.S. EPA in an April 29, 2010 letter and allows composite exhaust gas sample collection while maintaining the samples at a temperature 10 degrees warmer than the exhaust gas stack temperature and analysis within 24 hours of collection. This ALT-074 modification to Method 15 was approved for all similar facilities in the cellulose products manufacturing source category subject to 40 CFR Part 63, Subpart UUUU.

[Authority for term: OAC rule 3745-31-05(A)(3)]

c. Emission Limitations:

VOC emissions shall not exceed 1.74 tons/yr.

H₂S emissions shall not exceed 0.12 ton/yr.

Applicable Compliance Method:

The VOC tons/yr emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.40 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

The H₂S ton/yr emission limitation was developed by multiplying the short-term allowable H₂S emission limitation (0.028 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

[Authority for term: OAC rule 3745-31-05(A)(3)]

g) Miscellaneous Requirements

- a. P023 was installed circa 6/01/1990 and is not eligible for the Ohio Best Available Technology exemption (the less than 10 tons per year BAT exemption) per OAC paragraph 3745-31-05(A)(3)(a)(ii).

6. Emissions Unit Group -Reactors: P001,P002,P008,P009,

EU ID	Operations, Property and/or Equipment Description
P001	Reactor no. 1: 396-gal. steeping caustic tank, 40-gal. CS ₂ batch tank, 210-gal. water tank for viscose production with a bio-filtration system and a back-up packed bed scrubber to control volatile organic compound (VOC) emissions.
P002	Reactor no. 2: 396-gal. steeping caustic tank, 40-gal. CS ₂ batch tank, 210-gal. water tank for viscose production with a bio-filtration system and a back-up packed bed scrubber to control volatile organic compound (VOC) emissions.
P008	Reactor no. 3: 396-gal. steeping caustic tank, 40-gal. CS ₂ batch tank, 210-gal. water tank for viscose production with a bio-filtration system and a back-up packed bed scrubber to control volatile organic compound (VOC) emissions.
P009	Reactor no. 4: 396-gal. steeping caustic tank, 40-gal. CS ₂ batch tank, 210-gal. water tank for viscose production with a bio-filtration system and a back-up packed bed scrubber to control volatile organic compound (VOC) emissions.

- 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 3745-21-07(M)(3)(d), (d)(i) and (d)(iii)	Each of these emissions units are not subject to the requirements of paragraphs (M)(3)(a) and (M)(3)(b) of this rule, provided that the organic compound emissions from the emissions units are controlled by means of a biofiltration system or a packed bed scrubber which are maintained in accordance with the requirements pursuant to OAC rule 3745-31-05(A)(3).
b.	OAC rule 3745-31-05(A)(3)	<p>Volatile organic compounds (VOC) emissions shall not exceed 0.25 lb/hr and 1.10 tons/yr from each emissions unit.</p> <p>See B.2.b) through B.2.e) and B.3.a) through B.3.c).</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(F) Voluntary Restriction to Limit Potential Emissions	VOC emissions shall not exceed 222.5 tons/yr from the facility. See B.5.a). H ₂ S emissions shall not exceed 9.95 tons/yr from the facility. See B.5.b).
d.	40 CFR Part 63, Subpart UUUU (40 CFR 63.5480 – 63.5610)	See b)(2)a and b)(2)b.
e.	40 CFR 63.1 – 63.15 (40 CFR Part 63, Subpart UUUU Table 10)	Table 10 of Subpart UUUU of 40 CFR Part 63 - General Provisions Applicability to Subpart UUUU which shows which parts of the General Provisions in 40 CFR 63.1 – 63.15 apply.

(2) Additional Terms and Conditions

- a. As required in 40 CFR §63.5505(a), the permittee must meet the appropriate emission limits and work practice standards in Table 1 to 40 CFR Part 63, Subpart UUUU. See B.9.a) through B.9.e).
- b. As required in 40 CFR §63.5505(b), the permittee must meet the appropriate operating limits in Table 2 to 40 CFR Part 63, Subpart UUUU. See B.9.f) through B.9.h).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

c) Operational Restrictions

- (1) The capture and control systems for VOC and H₂S emissions shall be operated in accordance with the requirements specified in B.3.a) through B.3.c).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

d) Monitoring and/or Recordkeeping Requirements

- (1) See B.4.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) See B.6.

[Authority for term: OAC rule 3745-31-05(F)]

- (3) See B.10, B.11 and B.13.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

e) Reporting Requirements

- (1) See B.7.a) and B.7.a)(1) through (7).

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) See B.7.b), b)(1) and (2).

[Authority for term: OAC rule 3745-31-05(F)]

- (3) See B.14 and B.14.a) through g).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

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:

VOC emissions shall not exceed 0.25 lb/hr from each emissions unit.

Applicable Compliance Method:

Compliance may be based on the following equations:

- i. Determination of the maximum, uncontrolled hourly VOC emissions from the reaction process:

$$VOC_{UNCTRL} = (CS_2)_{CAPT}/CAPE$$

where:

VOC_{UNCTRL} = the maximum, uncontrolled hourly VOC emissions which was estimated to be 1.17 lbs VOC_{UNCTRL} /hr from each emissions unit.

CS_2 = the uncontrolled hourly carbon disulfide emissions which were estimated to be 1.14 lbs CS_2_{UNCTRL} /hr from an emission master model which calculates the headspace concentration on the basis of partial pressures (Raoult's Law) and the amount of compound in the mixture. The worst case conditions (maximum temperature, maximum CS_2 input, the assumed lowest cycle time for the batch process, and discounting that the CS_2 concentration decreases as the reaction progresses) were assumed in the emission estimation model.

$(CS_2)_{CAPT}$ = the uncontrolled, corrected hourly carbon disulfide emissions which were estimated to be 1.17 lbs CS_2_{UNCTRL} /hr, which multiplies the estimated emission rate by the assumed minimum batch time used in the model and divides by the true minimum batch time.



Effective Date: To be entered upon final issuance

CAPE = the efficiency of the capture devices as specified for the closed system, which is 100% or 1.0 as stated in the applications for P0116058.

- ii. Determination of the maximum, controlled, hourly VOC emissions from the reaction process:

$$\begin{aligned} \text{VOC(lb/hr)} &= \text{VOC}_{\text{CAPT\&CONTRL}} + \text{VOC}_{\text{UNCTRL VENT}} \\ &= [\text{VOC}_{\text{UNCTRL}} \times \text{CAPE} \times (1 - \text{CE})] + [\text{VOC}_{\text{UNCTRL}} \times (1 - \text{CAPE})] \end{aligned}$$

where:

VOC(lb/hr) = the maximum, controlled hourly VOC emissions, which were estimated to be 0.234 lb VOC/hr;

and

CE = the minimum efficiency of the control device (e.g. biofilter system) which must be at least 80% or 0.80, as stated in the applications for P0116058.

If required, the permittee shall demonstrate compliance with the emissions limitation(s) through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, and Method 320, 40 CFR Part 63, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- b. Emission Limitation:

VOC emissions shall not exceed 1.10 tons/yr from each emissions unit.

Applicable Compliance Method:

The VOC tons/yr emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.25 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- g) Miscellaneous Requirements

- (1) P001 and P002 were installed circa 6/01/1990, P008 was installed circa 1/01/1996, and P009 was installed circa 1/01/2001. These emissions units are not eligible for the Ohio Best Available Technology exemption (the less than 10 tons per year BAT exemption) per OAC paragraph 3745-31-05(A)(3)(a)(ii).

7. Emissions Unit Group -Sponge Cooking Lines: P003,P004,P010,

EU ID	Operations, Property and/or Equipment Description
P003	Continuous sponge cooking line no. 1: cooking and acid wash stations with a bio-filtration system and a backup packed bed scrubber to control volatile organic compound (VOC) and hydrogen sulfide (H ₂ S) emissions; all uncontrolled emissions are exhausted to the ventilation stack.
P004	Continuous sponge cooking line no. 2: cooking and acid wash stations with a bio-filtration system and a backup packed bed scrubber to control volatile organic compound (VOC) and hydrogen sulfide (H ₂ S) emissions; all uncontrolled emissions are exhausted to the ventilation stack.
P010	Sponge cloth cooking line no. 2: cooking and acid wash stations with a bio-filtration system and a backup packed bed scrubber to control volatile organic compound (VOC) and hydrogen sulfide (H ₂ S) emissions; all uncontrolled emissions are exhausted to the ventilation stack.

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)(4)

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 3745-21-07(M)(3)(d), (d)(i) and (d)(iii)	Each of these emissions units are not subject to the requirements of paragraphs (M)(3)(a) and (M)(3)(b) of this rule, provided that the organic compound emissions from the emissions units are controlled by means of a biofiltration system or a packed bed scrubber which are maintained in accordance with the requirements pursuant to OAC rule 3745-31-05(A)(3).
b.	OAC rule 3745-31-05(A)(3)	See b)(2)a. See B.2.b) through B.2.e) and B.3.a) through B.3.c). See b)(2)a. See B.2.b) through B.2.e) and B.3.a) through B.3.c).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(F) Voluntary Restriction to Limit Potential Emissions	VOC emissions shall not exceed 222.5 tons/yr from the facility. See B.5.a). H ₂ S emissions shall not exceed 9.95 tons/yr from the facility. See B.5.b).
d.	40 CFR Part 63, Subpart UUUU (40 CFR 63.5480 – 63.5610)	See b)(2)b and b)(2)c.
e.	40 CFR 63.1 – 63.15 (40 CFR Part 63, Subpart UUUU Table 10)	Table 10 of Subpart UUUU of 40 CFR Part 63 - General Provisions Applicability to Subpart UUUU which shows which parts of the General Provisions in 40 CFR 63.1 – 63.15 apply.

(2) Additional Terms and Conditions

- a. VOC emissions and H₂S emissions shall not exceed the following as specified for each emissions unit:

EU ID	Equipment Description	VOC		H ₂ S	
		lbs/hr	tons/yr	lbs/hr	tons/yr
P003	Continuous sponge cooking line no. 1	11.57	50.66	1.17	5.13
P004	Continuous sponge cooking line no. 2	11.57	50.66	1.17	5.13
P010	Sponge cloth cooking line no. 2	4.16	18.24	0.61	2.65

- b. As required in 40 CFR §63.5505(a), the permittee must meet the appropriate emission limits and work practice standards in Table 1 to 40 CFR, Part 63, Subpart UUUU. See B.9.a) through B.9.e).
- c. As required in 40 CFR §63.5505(b), the permittee must meet the appropriate operating limits in Table 2 to 40 CFR Part 63, Subpart UUUU. See B.9.f) through B.9.h).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

c) Operational Restrictions

- (1) The capture and control systems for VOC and H₂S emissions shall be operated in accordance with the requirements specified in B.3.a) through B.3.c).

[Authority for term: OAC rule 3745-31-05(A)(3)]

d) Monitoring and/or Recordkeeping Requirements

- (1) See B.4.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) See B.6.

[Authority for term: OAC rule 3745-31-05(F)]

- (3) See B.10, B.11 and B.13.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

- (4) Modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary because the emissions unit’s maximum annual emissions increase for each toxic air contaminant, as defined in OAC rule 3745-114-01, is not due to a “modification” as defined in OAC rule 3745-31-01(SSS) and is subject to a federal Maximum Achievable Control Technology standard (e.g. 40 CFR Part 63, Subpart UUUU) that restricts the amounts of pollutants that could be released. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a “modification” as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

[Authority for term: ORC 3704.03(F)(4)(b) and (e)]

e) Reporting Requirements

- (1) See B.7.a) and B.7.a)(1) through (7).

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) See B.7.b), b)(1) and (2).

[Authority for term: OAC rule 3745-31-05(F)]

- (3) See B.14 and B.14.a) through g).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

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:

The VOC emissions shall not exceed the hourly emission limitations specified in b)(2)a. for each emissions unit.

Applicable Compliance Method:

Compliance may be based on the following equations:

- i. Determination of the maximum, uncontrolled hourly VOC emissions from the cooking station and acid wash and rinse (water wash) stations:

$$VOC_{UNCTRL\ i} = [(CS_{2\ i} + COS_{i})_{CAPT}]/CAPE_i \times 1.15$$

where:

$VOC_{UNCTRL\ i}$ = the maximum, uncontrolled hourly VOC emissions;

$VOC_{UNCTRL\ P003/P004}$ = the maximum, uncontrolled VOC emissions were estimated to be 41.31 lbs VOC_{UNCTRL} /hr from P003 and P004 each;

$VOC_{UNCTRL\ P010}$ = the maximum, uncontrolled VOC emissions were estimated to be 6.19 lbs VOC_{UNCTRL} /hr from P010;

$CS_{2CAPT\ i}$ = the uncontrolled hourly carbon disulfide emissions;

$CS_{2CAPT\ P003/P004}$ = the uncontrolled hourly carbon disulfide emissions which were determined to be 32.22 lbs $CS_{2\ UNCTRL}$ /hr for P003 and P004 from exhaust gas testing of (P003) continuous sponge cooking line no. 1 via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 28, 2010;

$CS_{2CAPT\ P010}$ = the uncontrolled hourly carbon disulfide emissions which were determined to be 5.10 lbs $CS_{2\ UNCTRL}$ /hr from exhaust gas testing of (P010) sponge cloth cooking line no. 2 via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

$COS_{CAPT\ i}$ = the uncontrolled hourly carbonyl sulfide emissions;

$COS_{CAPT\ P003/P004}$ = the uncontrolled hourly carbonyl sulfide emissions which were determined to be 0.11 lb COS_{UNCTRL} /hr for P003 and P004 from exhaust gas testing of (P003) continuous sponge cooking line no. 1 via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 28, 2010;

$COS_{CAPT\ P010}$ = the uncontrolled hourly carbonyl sulfide emissions which were determined to be 1.5×10^{-2} lb COS_{UNCTRL} /hr from exhaust gas testing of (P010) sponge cloth cooking line no. 2 via U.S. EPA Methods 1

through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

CAPE_i = the efficiency of the capture device as specified for the enclosure system;

CAPE_{P003/P004} = the efficiency of the capture device as specified for the enclosure system(s) for P003 and P004 which is 90% or 0.90 as stated in the application for PTI P0110268;

CAPE_{P010} = the efficiency of the capture device as specified for the enclosure system, which is 95% or 0.95 as stated in the application for PTI P0110268; and

1.15 = the “safety” factor of 115% which is included for a conservative estimate.

- ii. Determination of the maximum, controlled hourly VOC emissions from the cooking station and acid wash and rinse (water wash) stations:

$$\begin{aligned} \text{VOC}(\text{lb/hr})_i &= \text{VOC}_{\text{CAPT\&CONTRL}_i} + \text{VOC}_{\text{UNCTRL VENT}_i} \\ &= [\text{VOC}_{\text{UNCTRL}_i} \times \text{CAPE}_i \times (1 - \text{CE})] + [\text{VOC}_{\text{UNCTRL}_i} \times (1 - \text{CAPE}_i)] \end{aligned}$$

where:

VOC(lb/hr)_i = the maximum, controlled hourly VOC emissions;

VOC(lb/hr)_{P003/P004} = the maximum, controlled hourly VOC emissions, which were estimated to be 11.57 lbs VOC/hr from P003 and P004 each;

VOC(lb/hr)_{P010} = the maximum, controlled hourly VOC emissions, which were estimated to be 1.49 lbs VOC/hr from P010; and

CE = the minimum efficiency of the control device (e.g. biofilter system) which must be at least 80% or 0.80, as stated in the application(s) for PTI P0110268.

If required, the permittee shall demonstrate compliance with the emissions limitation(s) through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, 15 and Method 204, specified in 40 CFR Part 51, Appendix M. Method 320, 40 CFR Part 63, Appendix A may be employed as an alternative to Method 15. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

[Authority for term(s): OAC rule 3745-31-05(A)(3)]

b. Emission Limitation:

The H₂S emissions shall not exceed the hourly emission limitations specified in b)(2)a. for each emissions unit.

Applicable Compliance Method:

Compliance may be based on the following equations:

- i. Determination of the maximum, uncontrolled hourly H₂S emissions from the cooking station and acid wash and rinse (water wash) stations:

$$H_2S_{UNCTRLi} = H_2S_{CAPTi} / CAPE_i \times 1.15$$

where:

$H_2S_{UNCTRLi}$ = the maximum, uncontrolled hourly H₂S emissions;

$H_2S_{UNCTRLP003/P004}$ = the maximum, uncontrolled hourly H₂S emissions which was estimated to be 8.09 lbs H₂S/hr from P003 & P004 each;

$H_2S_{UNCTRLP010}$ = the maximum, uncontrolled hourly H₂S emissions which was estimated to be 6.20 lbs H₂S/hr from P010;

H_2S_{CAPTi} = the uncontrolled hourly H₂S emissions;

$H_2S_{CAPTP003/P004}$ = the uncontrolled hourly H₂S emissions which was determined to be 6.33 lbs H₂S/hr for P003 and P004 each from exhaust gas testing of (P003) continuous sponge cooking line no. 1 via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 28, 2010;

$H_2S_{CAPTP010}$ = the uncontrolled hourly H₂S emissions which was determined to be 5.12 lbs H₂S/hr from exhaust gas testing of (P010) sponge cloth cooking line no. 2 via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

$CAPE_i$ = the efficiency of the capture device;

$CAPE_{P003/P004}$ = as specified for the enclosure system, which is 90% or 0.90 as stated in the application for PTI P0110268;

$CAPE_{P010}$ = the efficiency of the capture device as specified for the enclosure system, which is 95% or 0.95 as stated in the application for PTI P0110268; and

1.15 = the "safety" factor of 115% which is included for a conservative estimate.



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- ii. Determination of the maximum, controlled hourly H₂S emissions from the cooking station and acid wash and rinse (water wash) stations:

$$\begin{aligned}
 H_2S_i(\text{lb/hr})_i &= H_2S_{\text{CAPT\&CONTRL}_i} + H_2S_{\text{UNCTRL VENT}_i} \\
 &= [H_2S_{\text{UNCTRL}_i} \times \text{CAPE}_i \times (1 - \text{CE}_i)]_{\text{CAPT\&CONTRL}_i} \\
 &+ [H_2S_{\text{UNCTRL}_i} \times (1 - \text{CAPE}_i)]_{\text{UNCTRL VENT}_i}
 \end{aligned}$$

where:

H₂S(lb/hr)_i = the maximum, controlled hourly H₂S emissions;

H₂S(lb/hr)_{P003/P004} = the maximum, controlled hourly H₂S emissions which was estimated to be 1.17 lbs H₂S/hr from P003 and P004 each;

H₂S(lb/hr)_{P010} = the maximum, controlled hourly H₂S emissions, which was estimated to be 0.60 lb H₂S/hr from P010; and

CE= the minimum efficiency of the control device (e.g. biofilter system) which must be at least 95% or 0.95, as stated in the application(s) for PTI P0110268.

If required, the permittee shall demonstrate compliance with the emissions limitation(s) through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 15 (ALT-074) modification; and Method 204, specified in 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The ALT-074 modification to Method 15 from 40 CFR Part 60, Appendix A for low concentrations of H₂S was approved by U.S. EPA in an April 29, 2010 letter and allows composite exhaust gas sample collection while maintaining the samples at a temperature 10 degrees warmer than the exhaust gas stack temperature and analysis within 24 hours of collection. This ALT-074 modification to Method 15 was approved for all similar facilities in the cellulose products manufacturing source category subject to 40 CFR Part 63, Subpart UUUU.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- c. Emission Limitation:

VOC emissions shall not exceed the annual emission limitations specified in b)(2)a for each emissions unit.

H₂S emissions shall not exceed the annual emission limitations specified in b)(2)a for each emissions unit.

Applicable Compliance Method:

The VOC tons/yr emission limitation was developed by multiplying the short-term allowable VOC emission limitation as specified in b)(2)a. by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

The H₂S tons/yr emission limitation was developed by multiplying the short-term allowable H₂S emission limitation as specified in b)(2)a. by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

[Authority for term: OAC rule 3745-31-05(A)(3)]

g) Miscellaneous Requirements

- (1) P003 and P004 were installed circa 6/01/1990, and P010 was installed circa 10/01/2000. These emissions units are not eligible for the Ohio Best Available Technology exemption (the less than 10 tons per year BAT exemption) per OAC paragraph 3745-31-05(A)(3)(a)(ii).

8. Emissions Unit Group -Viscose blend mixers: P012,P013,P014,P015,P016,P017,

EU ID	Operations, Property and/or Equipment Description
P012	Mixer no. 2 for production of sponge mass from viscose and other materials. Volatile organic compound (VOC) and hydrogen sulfide (H2S) emissions exhaust through the ventilation stack.
P013	Mixer no. 3 for production of sponge mass from viscose and other materials. Volatile organic compound (VOC) and hydrogen sulfide (H2S) emissions exhaust through the ventilation stack.
P014	Mixer no. 4 for production of sponge mass from viscose and other materials. Volatile organic compound (VOC) and hydrogen sulfide (H2S) emissions exhaust through the ventilation stack.
P015	Mixer no. 5 for production of sponge mass from viscose and other materials. Volatile organic compound (VOC) and hydrogen sulfide (H2S) emissions exhaust through the ventilation stack.
P016	Mixer no. 6 for production of sponge mass from viscose and other materials. Volatile organic compound (VOC) and hydrogen sulfide (H2S) emissions exhaust through the ventilation stack.
P017	Mixer no. 7 for production of sponge mass from viscose and other materials. Volatile organic compound (VOC) and hydrogen sulfide (H2S) emissions exhaust through the ventilation stack.

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)(4)

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 3745-21-07(M)(3)(c)(ii)	Each of these emissions units are not subject to the requirements of paragraphs (M)(3)(a) and (M)(3)(b) of this rule because they have an uncontrolled potential to emit for organic compound emissions that does not exceed forty pounds per day.
b.	OAC rule 3745-31-05(A)(3)	See b)(2)a. See B.2.b) through B.2.e) and B.3.a) through B.3.c).



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(F) Voluntary Restrictions to Limit Potential Emissions	VOC emissions shall not exceed 222.5 tons/yr from the facility. See B.5.a). H ₂ S emissions shall not exceed 9.95 tons/yr from the facility. See B.5.b).
d.	40 CFR Part 63, Subpart UUUU (40 CFR 63.5480 – 63.5610)	See b)(2)b and b)(2)c.
e.	40 CFR 63.1 – 63.15	Table 10 of Subpart UUUU of 40 CFR Part 63 - General Provisions Applicability to Subpart UUUU which shows which parts of the General Provisions in 40 CFR 63.1 – 63.15 apply.

(2) Additional Terms and Conditions

a. VOC emissions and H₂S emissions shall not exceed the following as specified for each emissions unit:

EU ID	Equipment Description	VOC		H ₂ S	
		lb/hr	tons/yr	lb/hr	tons/yr
P012	Mixer no. 2	0.30	1.33	3.2 x 10 ⁻³	1.4 x 10 ⁻²
P013	Mixer no. 3	0.40	1.73	4.1 x 10 ⁻³	1.8 x 10 ⁻²
P014	Mixer no. 4	0.40	1.73	4.1 x 10 ⁻³	1.8 x 10 ⁻²
P015	Mixer no. 5	0.44	1.92	4.6 x 10 ⁻³	2.0 x 10 ⁻²
P016	Mixer no. 6	0.44	1.92	4.6 x 10 ⁻³	2.0 x 10 ⁻²
P017	Mixer no. 7	0.44	1.92	4.6 x 10 ⁻³	2.0 x 10 ⁻²

b. As required in 40 CFR §63.5505(a), the permittee must meet the appropriate emission limits and work practice standards in Table 1 to 40 CFR Part 63, Subpart UUUU. See B.9.a) through B.9.e).

c. As required in 40 CFR §63.5505(b), the permittee must meet the appropriate operating limits in Table 2 to 40 CFR Part 63, Subpart UUUU. See B.9.f) through B.9.h).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) See B.4.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) See B.6.

[Authority for term: OAC rule 3745-31-05(F)]

- (3) See B.10, B.11 and B.13.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

- (4) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions increase for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year and/or is subject to a federal Maximum Achievable Control Technology standard (e.g. 40 CFR Part 63, Subpart UUUU) that restricts the amounts of pollutants that could be released. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

[Authority for term: ORC 3704.03(F)(4)(b) and (e)]

e) Reporting Requirements

- (1) See B.7.a) and B.7.a)(1) through (7).

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) See B.7.b), B.7.b)(1) and b)(2).

[Authority for term: OAC rule 3745-31-05(F)]

- (3) See B.14 and B.14.a) through g).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

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 Limitations:

VOC emissions shall not exceed the hourly emission limitations specified in b)(2)a for each emissions unit.

Applicable Compliance Method:

Compliance may be based on the following equation(s):

$$\text{VOC}_{\text{UNCTRL } i} = (\text{CS}_2 + \text{COS})_{\text{UNCTRL MEASURED}} \times \text{min}_{\text{MEASURED}/\text{batch}} \times \text{batch}/B_i \text{ min} \times 1.15$$

where:

$\text{VOC}_{\text{UNCTRL } i}$ = the maximum, uncontrolled hourly VOC emissions from mixer i , which was estimated to be the emission rates specified in b)(2)a;

$\text{CS}_{2\text{UNCTRL MEASURED}}$ = the uncontrolled hourly carbon disulfide emissions which were determined to be 0.263 lb CS_2 UNCTRL/hr from exhaust gas testing of the of mixer no. 7 (P017) via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

$\text{COS}_{\text{UNCTRL MEASURED}}$ = the uncontrolled hourly carbonyl sulfide emissions which were determined to be 2.8×10^{-3} lb $\text{COS}_{\text{UNCTRL}}$ /hr from exhaust gas testing of mixer no. 7 (P017) via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

$\text{Min}_{\text{MEASURED}/\text{batch}}$ = the measured batch time, in minutes, of mixer no. 7 (P017) during the exhaust gas testing conducted on September 29, 2010;

$\text{batch}/B_i \text{ min}$ = the inverse of the minimum batch time in minutes for mixer i ; and

1.15 = the "safety" factor of 115% which is included for a conservative estimate.

b. Emission Limitation(s):

H_2S emissions shall not exceed the hourly emission limitations specified in b)(2)a for each emissions unit.

Applicable Compliance Method:

Compliance may be based on the following equation(s):

$$\text{H}_2\text{S}_{\text{UNCTRL } i} = \text{H}_2\text{S}_{\text{UNCTRL MEASURED}} \times \text{min}_{\text{MEASURED}/\text{batch}} \times \text{batch}/B_i \text{ min} \times 1.15$$

where:

$\text{H}_2\text{S}_{\text{UNCTRL } i}$ = the maximum, uncontrolled hourly H_2S emissions from mixer i , which was estimated to be the emission rates specified in b)(2)a;

$H_2S_{UNCTRL\ MEASURED}$ = the uncontrolled hourly H_2S emissions which were determined to be 2.5×10^{-3} lb H_2S_{UNCTRL} /hr from exhaust gas testing of the of mixer no. 7 (P017) via U.S. EPA Methods 1 through 4 and ALT-074 modification to Method 15 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 29, 2010;

$Min_{MEASURED}/batch$ = the measured batch time, in minutes, of mixer no. 7 (P017) during the exhaust gas testing conducted on September 29, 2010;

batch/ B_i min = the inverse of the minimum batch time in minutes for mixer I; and

1.15 = the “safety” factor of 115% which is included for a conservative estimate.

c. Emission Limitations:

VOC emissions shall not exceed the annual emission limitations specified in b)(2)a for each emissions unit.

H_2S emissions shall not exceed the annual emission limitations specified in b)(2)a for each emissions unit.

Applicable Compliance Method:

The VOC tons/yr emission limitations specified in b)(2)a were developed by multiplying the short-term allowable VOC emission limitations specified in b)(2)a. by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitations, compliance is demonstrated with the annual emission limitations.

The H_2S ton/yr emission limitations specified in b)(2)a were developed by multiplying the short-term allowable H_2S emission limitations specified in b)(2)a. by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitations, compliance is demonstrated with the annual emission limitations.

[Authority for term: OAC rule 3745-31-05(A)(3)]

g) Miscellaneous Requirements

- (1) P012 was installed circa 6/01/1999, P013 and P014 were installed circa 6/01/1990, P016 was installed circa 11/01/1999 and P017 was installed circa 6/01/2005. These emissions units are not eligible for the Ohio Best Available Technology exemption (the less than 10 tons per year BAT exemption) per OAC paragraph 3745-31-05(A)(3)(a)(ii).



9. Emissions Unit Group -Wastewater Trickling Towers: P020,P021,

EU ID	Operations, Property and/or Equipment Description
P020	Trickling tower no. 1: pre-treatment of wastewater streams as a liquid/gas separation step with a bio-filtration system to control volatile organic compound (VOC) and hydrogen sulfide (H ₂ S) emissions.
P021	Trickling tower no. 2: pre-treatment of wastewater streams as a liquid/gas separation step with a bio-filtration system to control volatile organic compound (VOC) and hydrogen sulfide (H ₂ S) emissions.

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)(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 3745-21-07(M)(2)	Each of these emissions units are subject to the requirements of paragraphs (M)(3)(a) and (M)(3)(b) of this rule and shall be equipped with a control system (i.e., capture and control equipment) that reduces the organic compound emissions from the article, machine, equipment or other contrivance by an overall control efficiency of at least eighty-five per cent (85%), by weight. See B.2.c), B.3.b) and B.3.c).
b.	OAC rule 3745-31-05(A)(3)	<p>Volatile organic compounds (VOC) emissions shall not exceed 4.82 lbs/hr and 21.09 tons/yr from each emissions unit. See B.2.b) through B.2.e) and B.3.a) through B.3.c).</p> <p>Hydrogen sulfide (H₂S) emissions shall not exceed 0.69 lb/hr and 3.02 tons/yr from each emissions unit. See B.2.b) through B.2.e) and B.3.a) through B.3.c).</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(F) Voluntary Restrictions to Limit Potential Emissions	VOC emissions shall not exceed 222.5 tons/yr from the facility. See B.5.a). H ₂ S emissions shall not exceed 9.95 tons/yr from the facility. See B.5.b).
d.	40 CFR Part 63, Subpart UUUU (40 CFR 63.5480 – 63.5610)	See b)(2)a and b)(2)b.
e.	40 CFR 63.1 – 63.15	Table 10 of Subpart UUUU of 40 CFR Part 63 - General Provisions Applicability to Subpart UUUU which shows which parts of the General Provisions in 40 CFR 63.1 – 63.15 apply.

(2) Additional Terms and Conditions

- a. As required in 40 CFR §63.5505(a), the permittee must meet the appropriate emission limits and work practice standards in Table 1 to 40 CFR Part 63, Subpart UUUU. See B.9.a) through B.9.e).
- b. As required in 40 CFR §63.5505(b), the permittee must meet the appropriate operating limits in Table 2 to 40 CFR Part 63, Subpart UUUU. See B.9.f) through B.9.h).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

c) Operational Restrictions

- (1) The capture and control systems for VOC and H₂S emissions shall be operated in accordance with the requirements specified in B.3.a) through B.3.c).

[Authority for term: OAC rule 3745-31-05(A)(3)]

d) Monitoring and/or Recordkeeping Requirements

- (1) See B.4.c) through B.4.f).

[Authority for term: OAC rules 3745-21-07(M)(2), 3745-21-07(M)(3)(a) and 3745-21-07(M)(3)(b)]

- (2) See B.4.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (3) See B.6.

[Authority for term: OAC rule 3745-31-05(F)]

- (4) See B.10, B.11 and B.13.

[Authority for term: 40 CFR Part 63, Subpart UUUU]

- (5) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions increase for each toxic air contaminant, as defined in OAC rule 3745-114-01, is subject to a federal Maximum Achievable Control Technology standard (e.g. 40 CFR Part 63, Subpart UUUU) that restricts the amounts of pollutants that could be released. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

[Authority for term: ORC 3704.03(F)(4)(b) and (e)]

e) Reporting Requirements

- (1) See B.7.a), B.7.a)(2), B.7.a)(3), and B.2.a)(5) through (7).

[Authority for term: OAC rules 3745-21-07(M)(2), 3745-21-07(M)(3)(a) and 3745-21-07(M)(3)(b)]

- (2) See B.7.a) and B.7.a)(1) through (7).

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (3) See B.7.b), B.7.b)(1) and B.7.b)(2).

[Authority for term: OAC rule 3745-31-05(F)]

- (4) See B.14 and B.14.a) through g).

[Authority for term: 40 CFR Part 63, Subpart UUUU]

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:

VOC emissions shall not exceed 4.82 lbs/hr from each emissions unit.

Applicable Compliance Method:

Compliance may be based on the following equations:

- i. Determination of the maximum, uncontrolled hourly VOC emissions from the wastewater treatment process:

$$VOC_{UNCTRL-TT} = [(CS_2 + COS)_{CAPT}]_{2TOWERS} / CAPE \times 1.15$$

where:

$VOC_{UNCTRL-TT}$ = the maximum, uncontrolled hourly VOC emissions which was estimated to be 41.93 lbs VOC_{UNCTRL} /hr from both emissions units, combined;

CS_{2CAPT} = the uncontrolled hourly carbon disulfide emissions which were determined to be 36.30 lbs CS_2_{UNCTRL} /hr from testing of the trickling towers process exhaust gases, combined, associated with P020 and P021 via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 27, 2010;

COS_{CAPT} = the uncontrolled hourly carbonyl sulfide emissions which were determined to be 0.162 lb COS_{UNCTRL} /hr from testing of the trickling towers process combined exhaust gases associated with P020 and P021 via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 27, 2010;

CAPE = the efficiency of the capture device as specified for the enclosure system, which is 100% or 1.0 as stated in the application for PTI P0109808; and

1.15 = the "safety" factor of 115% which is included for a conservative estimate.

- ii. Determination of the maximum, uncontrolled hourly VOC emissions from the reactors off gases:

$$VOC_{UNCTRL-REACTORS-OFF-GAS} = (CS_{2UNCTRL\ MEASURED}) / CAPE \times \min_{\text{MEASURED}} \text{ per batch} \times \text{batch} / B_i \text{ min} \times 1.15 \times 4 \text{ reactors}$$

where:

$VOC_{UNCTRL-REACTORS-OFF-GAS}$ = the maximum, uncontrolled hourly VOC emissions which was estimated to be 6.20 lbs VOC_{UNCTRL} /hr from four reactors (P001, P002, P008 and P009) combined;

$CS_{2UNCTRL\ MEASURED}$ = the uncontrolled hourly carbon disulfide emissions which were determined to be 1.17 lbs CS_2_{UNCTRL} /hr from exhaust gas testing of the off gases (formerly fugitive gases) associated with P009 via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on April 20, 2010;

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CAPE = the efficiency of the capture device as specified for the enclosure system, which is 100% or 1.0 as stated in the application for PTI P0109808;

$\min_{\text{MEASURED}}/\text{batch}$ = the measured batch time, in minutes, of reactor no. 4 (P009) during the exhaust gas testing conducted on April 20, 2010;

$\text{batch}/B_i \text{ min.}$ = the inverse of the minimum batch time in minutes for each reactor; and

1.15 = the “safety” factor of 115% which is included for a conservative estimate.

- iii. Determination of the total maximum, uncontrolled hourly VOC emissions:

$$\text{VOC}_{\text{UNCTRL TOTAL}} = (\text{VOC}_{\text{UNCTRL-TT}} + \text{VOC}_{\text{UNCTRL-REACTORS-OFF-GAS}})/2 \text{ towers}$$

where:

$\text{VOC}_{\text{UNCTRL TOTAL}}$ = the maximum, uncontrolled hourly VOC emissions which was estimated to be 24.07 lbs $\text{VOC}_{\text{UNCTRL}}/\text{hr}$.

- iv. Determination of the maximum, controlled hourly VOC emissions from each emissions unit:

$$\text{VOC}(\text{lb/hr}) = \text{VOC}_{\text{UNCTRL TOTAL}} \times (1 - \text{CE}_{\text{OVERALL}})$$

where:

$\text{VOC}(\text{lb/hr})$ = the maximum, controlled hourly VOC emissions, which were estimated to be 4.82 lbs VOC/hr from each emissions unit;

$\text{CE}_{\text{OVERALL}} = (\text{CAPE} \times \text{CE})/100$ = overall control (reduction) efficiency (as a decimal) for VOC emissions of any capture and control equipment system;

CAPE = the efficiency of the capture device as specified for the enclosure system, which is 100% or 1.0 as stated in the application for PTI P0109808; and

CE = the efficiency of the control device (e.g. biofilter system), in percent by weight [During emission tests conducted on June 11, 2014, an average control efficiency of 86.7%, as organic compound emissions, was measured for the biofilter control system.].

If required, the permittee shall demonstrate compliance with the emission limitation(s) through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, 15 and Method 204, specified in 40 CFR Part 51, Appendix M. Method 320, 40 CFR Part 63, Appendix A may be employed as an alternative to Method 15.



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

[Authority for term: OAC rule 3745-31-05(A)(3)]

b. Emission Limitation:

H₂S emissions shall not exceed 0.69 lb/hr from each emissions unit.

Applicable Compliance Method:

Compliance may be based on the following equations:

- i. Determination of the maximum, uncontrolled hourly H₂S emissions from the wastewater treatment process:

$$H_{2S_{UNCTRL\ TT}} = H_{2S_{CAPT-2TOWERS}} / CAPE \times 1.15$$

where:

H_{2S_{UNCTRL TT}} = the maximum, uncontrolled hourly H₂S emissions which was estimated to be 27.60 lbs H₂S/hr from both emissions units, combined;

H_{2S_{CAPT}} = the uncontrolled hourly H₂S emissions which was determined to be 24.00 lbs H₂S/hr from testing of the trickling towers process exhaust gases, combined, associated with P020 and P021 via U.S. EPA Methods 1 through 4 from 40 CFR Part 60, Appendix A and Method 320 from 40 CFR Part 63, Appendix A conducted on September 27, 2010;

CAPE = the efficiency of the capture device as specified for the enclosure system, which is 100% or 1.0 as stated in the application for PTI P0109808; and

1.15 = the “safety” factor of 115% which is included for a conservative estimate.

- ii. Determination of the maximum, controlled hourly H₂S emissions:

$$H_{2S(lb/hr)} = H_{2S_{UNCTRL\ TT}} \times 1/2 \text{ towers} \times CAPE \times (1 - CE)$$

where:

H_{2S(lb/hr)} = the maximum, controlled hourly H₂S emissions, which was estimated to be 0.69 lb H₂S/hr from each emissions unit; and

CE = the minimum efficiency of the control device (e.g. biofilter control system) which is at least 95% or 0.95, as stated in the application(s) for PTI P0109808.



If required, the permittee shall demonstrate compliance with the emission limitation(s) through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 15 (ALT-074) modification; and Method 204, specified in 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The ALT-074 modification to Method 15 from 40 CFR Part 60, Appendix A for low concentrations of H₂S was approved by U.S. EPA in an April 29, 2010 letter and allows composite exhaust gas sample collection while maintaining the samples at a temperature 10 degrees warmer than the exhaust gas stack temperature and analysis within 24 hours of collection. This ALT-074 modification to Method 15 was approved for all similar facilities in the cellulose products manufacturing source category subject to 40 CFR Part 63, Subpart UUUU.

[Authority for term: OAC rule 3745-31-05(A)(3)]

c. Emission Limitations:

VOC emissions shall not exceed 21.09 tons/yr from each emissions unit.

H₂S emissions shall not exceed 3.02 tons/yr from each emissions unit.

Applicable Compliance Method:

The VOC tons/yr emission limitation was developed by multiplying the short-term allowable VOC emission limitation (4.82 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

The H₂S tons/yr emission limitation was developed by multiplying the short-term allowable H₂S emission limitation (0.69 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

[Authority for term: OAC rule 3745-31-05(A)(3)]

- (2) The permittee shall conduct, or have conducted, emission testing for emissions units P020 and P021 in accordance with the following requirements:
- a. The emission testing shall be conducted within 4.5 years after the most recent performance test(s) that demonstrated compliance. Compliance was recently demonstrated with test(s) performed on 6/11/2014 and 6/12/2014.
 - b. The emission testing shall be conducted to demonstrate compliance with the minimum of 85% overall control efficiency (e.g. capture and control equipment) for OC emissions reduction.

- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) and other requirements specified in C.9.f)(2)b.
- i. Method 1, 40 CFR Part 60, Appendix A - test port and traverse point locations;
 - ii. Method 2, 40 CFR Part 60, Appendix A – volumetric flow;
 - iii. Method 3, 40 CFR Part 60, Appendix A – gas composition;
 - iv. Method 4, 40 CFR Part 60, Appendix A – moisture content;
 - v. Method 15 (ALT-074 modification), 40 CFR Part 60, Appendix A – low concentrations of H₂S in biofilter system outlet;
 - vi. Method 320, 40 CFR Part 63, Appendix A – CS₂, COS in all exhaust streams and high concentrations of H₂S in biofilter system inlet; and
 - vii. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Note: The efficiency of VOC – OC emissions capture is assumed to be 100% because all of the process operation equipment exhaust gases are routed to the main ducting to the biofilter - backup scrubber control system(s).

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

- d. The ALT-074 modification to Method 15 from 40 CFR Part 60, Appendix A for low concentrations of H₂S was approved by U.S. EPA in an April 29, 2010 letter and allows composite exhaust gas sample collection while maintaining the samples at a temperature 10 degrees warmer than the exhaust gas stack temperature and analysis within 24 hours of collection. This ALT-074 modification to Method 15 was approved for all similar facilities in the cellulose products manufacturing source category subject to 40 CFR Part 63, Subpart UUUU.
- e. The demonstration of the overall control efficiency (e.g. capture and control equipment) for OC emissions reduction for P020 and P021 may employ the same sampling and test methods used to demonstrate the minimum of 80% control efficiency for VOC emissions reduction from the biofilter system and/or backup scrubber, required by B.17 with prior approval from the Ohio EPA.
- f. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable

emissions limits and/or control requirements, unless otherwise specified or approved by the Ohio EPA Northeast District Office. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

- g. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).
- h. Personnel from the appropriate Ohio EPA Northeast District Office shall be permitted to witness the test(s), 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.
- i. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA Northeast District Office.

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.

[Authority for term: OAC rules 3745-21-07(M)(2), 3745-21-07(M)(3)(a) and 3745-21-07(M)(3)(b)]

g) **Miscellaneous Requirements**

- a. P020 and P021 were installed circa 1/01/2002 and are not eligible for the Ohio Best Available Technology exemption (the less than 10 tons per year BAT exemption) per OAC paragraph 3745-31-05(A)(3)(a)(ii).