Ohio Environmental Protection Agency
John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

6/17/2011

Certified Mail

Facility ID: 0448000013
Permit Number: P0088008
County: Lucas

Carry Jo Perry
Johns Manville - Waterville 07
6050 River Road
Waterville, OH 43566

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 EPA Weekly Review and the local newspaper, Toledo Blade. 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 "Issued Air Pollution Control Permits" link. 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

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on 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 Toledo Department of Environmental Services at (419)936-3015.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 -*Via E-Mail Notification*
TDES; Michigan; Indiana

Lucas County

PUBLIC NOTICE
Issuance of Draft Air Pollution Title V Permit
Johns Manville - Waterville 07

Issue Date: 6/17/2011
Permit Number: P0088008
Permit Type: Renewal
Permit Description: Renewal of Title V Permit for production of glass fibers from glass marbles into mats and loose glass fibers.
Facility ID: 0448000013
Facility Location: Johns Manville - Waterville 07
7500 Dutch Road,
Waterville, OH 43566
Facility Description: Mineral Wool Manufacturing

The Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio, has issued a draft action of an air pollution control Title V operating permit for the facility at the location identified above on the date indicated. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Mary Lehman-Schmidt at Toledo Department of Environmental Services, 348 South Erie Street, Toledo, OH 43604 or (419)936-3015. The permit, which includes a detailed description of the operations, and associated statement of basis for the permit requirements, can be downloaded from the Web page: www.epa.ohio.gov/dapc

Statement of Basis For Air Pollution Title V Permit

Facility ID:	0448000013
Facility Name:	Johns Manville - Waterville 07
Facility Description:	Fiberglass Production
Facility Address:	7500 Dutch Road, Waterville, OH 43566
Permit #:	P0087977, Renewal

This facility is subject to Title V because it is major for:

☐ Lead ☐ Sulfur Dioxide ☒ Carbon Monoxide ☐ Volatile Organic Compounds ☐ Nitrogen Oxides

☒ **Particulate Matter ≤ 10 microns** ☒ Single Hazardous Air Pollutant ☐ Combined Hazardous Air Pollutants

☐ Maximum Available Control Technology Standard(s)

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
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)	N/A

B. Facility-Wide Terms and Conditions

Term and Condition (paragraph)	Basis		Comments
	SIP (3745-)	Other	
N/A			

C. Emissions Unit Terms and Conditions

Key:
EU = emissions unit ID
ND = negative declaration (i.e., term that indicates that a particular rule(s) is (are) not applicable to a specific emissions unit)
OR = operational restriction
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?
R = record keeping requirements
Rp = reporting requirements
ET = emission testing requirements (not including compliance method terms)
Misc = miscellaneous requirements

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
B005	Insignificant	31-03(A)(1)(a)	N	N	N	N	N	N	N	N	N	N	N	N	Basis – permanent exemption for fossil fuel-fired boilers less than ten million BTU per hour burning natural gas
		77-01(V)(1)	N	N	N	N	N	N	N	N	N	N	N	N	Basis – "insignificant activities and emissions levels" includes all source catagories excluded from the requirements to obtain installation permits or operating permits under OAC rule 3745-31

		N	Y	N	N	Y	N	N	Y	N	Y	N	N	N	Basis is 40 CFR Part 63 Subpart DDDDD. M,R,Rp - These emission units burn natural gas and have a design capacity less than 10 million BTU per hour. Per Table 3 must perform Energy Assessment and biennial tune up of boiler.
P014	Carbon Monoxide (CO) - 1.8 pounds per hour; 7.8 tons per rolling, 12-month period	N	Y	N	Y	Y	N	N	Y	N	Y	N	N	N	Basis is OAC rule 3745-31-05(A) BAT OR – Exclusive combustion of natural gas. M, R, &Rp- monitoring exclusive use of natural gas shall demonstrate compliance ET – No testing needed to demonstrate compliance per EG#16 due to low level of emissions. CAM – not subject to CAM, no control and emissions less than major source threshold.
	Nitrogen Oxides (NO_x) – 0.73 pound per hour; 3.2 tons per rolling 12-month period	N	Y	N	Y	Y	N	N	Y	N	Y	N	N	N	Basis is OAC rule 3745-31-05(A) BAT OR – Exclusive combustion of natural gas. M, R, &Rp- monitoring exclusive use of natural gas shall demonstrate compliance ET - No testing needed to demonstrate compliance per EG#16 due to low emission rate CAM – not subject to CAM, no control and emissions less than major source threshold.
	Particulate Emissions (PE) – 1.2 pounds per hour; 5.1 tons per rolling, 12-month period	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	Basis is OAC rule 3745-31-05(A) BAT OR – Exclusive combustion of natural gas. OR – Maximum operating rate of 237 tons of fiber slurry per day M, R, &Rp- monitoring exclusive use of natural gas and monitoring product throughput shall demonstrate compliance ET – no stack test required per EG#16 due

															to level of uncontrolled emissions CAM – not subject to CAM, no control and emissions less than major source threshold.
	Sulfur Dioxide (SO2) – 0.03 pounds per hour; 0.13 ton per rolling, 12-month period	N	Y	N	Y	Y	N	N	Y	N	Y	N	N	N	Basis is OAC rule 3745-31-05(A) BAT OR – Exclusive combustion of natural gas. M, R, &Rp- monitoring exclusive use of natural gas shall demonstrate compliance ET - No testing needed to demonstrate compliance per EG#16 due to low level of emissions. CAM – not subject to CAM, no control and emissions less than major source threshold.
	Volatile Organic Compounds (VOC) – 5.3 pounds per hour; 23 tons per rolling, 12-month period	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Basis is OAC rule 3745-31-05(A) BAT OR – Operation of Incinerator when employing organics Note: The permittee also has the option of maximum uncontrolled emission of 3 pounds per hour and 15 pounds per day of VOC emissions. M, R, &Rp- Incinerator temperature records showing the average inlet temperature in any 3-hour block period does not fall more than 50 degrees Fahrenheit below the temperature established during the performance test and specified in the OMM plan. ET – performance testing of incinerator destructive efficiency to demonstrate compliance per EG#16 every five years; most recent stack test showing compliance dated September 17, 2008 shows a destructive efficiency of 91.8% at an average chamber temperature of 985F. St – streamlining language added for

															incinerator temperature to align with permit library terms CAM – applicable to this emission, CAM plan submitted, indicator is chamber temperature records, temperature difference across catalyst bed update
	Formaldehyde 3.3 pounds per hour; 14.5 tons per rolling, 12-month period	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Basis is OAC rule 3745-31-05(A) BAT OR – Reduce uncontrolled formaldehyde emissions from the mat oven by at least 96%. M, R, &Rp- Incinerator temperature records showing temperature no less than used during compliance destructive efficiency test. ET – performance testing of incinerator to demonstrate compliance per 40 CFR Part 63 Subpart HHHH; most recent stack test showing compliance dated September 17, 2008 shows a destructive efficiency of 96.8% at an average chamber temperature of 985F. St – incinerator temperature terms aligned with current permit library terms CAM – not subject to CAM due to applicability of 40 CFR Part 63 Subpart HHHH
	90% or greater destructive efficiency for OC in incinerator	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	Basis is OAC rule 3745-31-05(A) BAT OR – Operation of Incinerator when employing organics Note: The permittee also has the option of maximum uncontrolled emission of 3 pounds per hour and 15 pounds per day of VOC emissions. M, R, &Rp- Incinerator temperature records showing the average operating temperature in any 3-hour block period

															does not fall more than 50 degrees Fahrenheit below the temperature established during the performance test and specified in the OMM plan. ET – performance testing of incinerator to demonstrate compliance per EG#16 every 5 years; most recent stack test showing compliance dated September 17, 2008 shows a destructive efficiency of 91.8% at an average chamber temperature of 985F.
	Visible PE from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.	17-07(A)	N	N	Y	N	Y	N	Y	N	Y	N	N	N	M, R, &Rp- Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.
	none	17-11(B)	N	N	N	N	N	N	N	N	N	N	N	N	Limitation: Per Table I allowable emissions of 19.0 lb/hr at hourly process weight of 9.9 tons/hr. Less stringent than OAC rule 3745-31-05(A)(3)
	none	18-06(A)	N	Y	N	N	N	N	N	N	N	N	N	N	ND – no emission limitations with natural gas as fuel
	none	21-07(G)(1)	N	Y	N	N	N	N	N	N	N	N	N	N	ND – exempt – not employing photochemically reactive materials. M, R, &Rp- Facility must document and report any use of photochemically reactive materials.
	96% or greater destructive efficiency of	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Basis is 40 CFR Part 63, Subpart HHHH OR - Reduce uncontrolled formaldehyde emissions from the mat oven by at least 96% with incinerator

	uncontrolled formaldehyde emissions or 0.03 kilogram formaldehyde per megagram (0.05 pounds per ton)														M, R, &Rp- Incinerator temperature records showing the average operating temperature in any 3-hour block period does not fall more than 50 degrees Fahrenheit below the temperature established during the most recent performance test as specified in the OMM plan. Most recent stack test showing compliance dated September 17, 2008 shows a destructive efficiency of 96.8% at an average chamber temperature of 985F. ET – performance testing of incinerator to demonstrate compliance every five years per 40 CFR Part 63, Subpart HHHH.
P018	Particulate Emissions (PE) – 1.92 pounds per hour; 8.41 tons per rolling, 12-month period	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Basis is OAC rule 3745-31-05(A) BAT OR – Exclusive combustion of natural gas. OR – operation of wet scrubber when emission unit in operation M, R, &Rp- compliance demonstrated by records of combusting only natural gas, operation of wet scrubber ET – PE stack test required within six months of permit expiration CAM – not subject to CAM, uncontrolled emissions less than major source threshold.
	Visible PE from any stack shall not exceed 20% opacity as a 6-minute average	17-07(A)	N	N	Y	N	Y	N	Y	N	Y	N	N	N	M, R, &Rp- Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.
	none	17-11(B)(1)	N	N	N	N	N	N	N	N	N	N	N	N	Limitation: Per Table I allowable emissions of 2.22 pounds per hour at hourly process weight of 0.4 tons per hour. Less stringent

															than OAC rule 3745-31-05(A)(3)
P019	Particulate Emissions (PE) – 2.22 pounds per hour	17-11(B)(1)	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Basis is OAC rule 3745-31-05(A) BAT OR – Exclusive combustion of natural gas. OR – operation of wet scrubber when emission unit in operation M, R, &Rp- compliance demonstrated by records of combusting only natural gas, operation of wet scrubber ET – PE stack test required within six months of permit expiration CAM – not subject to CAM, uncontrolled emissions less than major source threshold.
	Visible PE from any stack shall not exceed 20% opacity as a 6-minute average	17-07(A)	N	N	Y	N	Y	N	Y	N	Y	N	N	N	M - Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.
P035 – P126	Visible PE from any stack shall not exceed 20% opacity as a 6-minute average	17-07(A)	N	N	Y	N	Y	N	Y	N	Y	N	N	N	M - Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.
	Particulate Emissions (PE) – 0.551 pound per hour (total from all stack for P026-P126)	17-11(B)(1)	N	N	Y	N	Y	N	Y	N	Y	Y	Y	Y	OR – This unit may only combust natural gas. OR – This unit must employ EMC control system during operation of emission unit. M – compliance demonstrated by records of combusting only natural gas & operation of EMC unit

															ET - stack test required per EG#16 within six months of permit expiration CAM – not subject to CAM, uncontrolled emissions less than major source threshold.
	none	18-06(C)	N	Y	N	N	N	N	N	N	N	N	N	N	ND – exempt – exclusive combustion of natural gas and less than 1000 pounds per hour process weight
P127-P204	Carbon Monoxide (CO) –27.33 tons per rolling, 12-month period	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Basis is OAC rule 3745-31-05(A) BAT OR – This unit shall only combust natural gas OR – average hourly restriction on glass production M – compliance demonstrated by records of combusting only natural gas & daily glass production records and hours of operation CAM – not subject to CAM, no control and emissions less than major source threshold.
	Carbon Monoxide (CO) – 6.24 pounds per hour	31-10 through 20	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Basis is result of PSD review for major increase OR – This unit shall only combust natural gas OR – average hourly restriction on glass production M – compliance demonstrated by records of combusting only natural gas & daily glass production records and hours of operation ET - stack test required within six months of permit expiration CAM – not subject to CAM, no control and emissions less than major source threshold.

	Nitrogen Oxides (NO_x) 0.21 pound per hour; 0.92 ton per rolling, 12-month period	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Basis is OAC rule 3745-31-05(A) BAT OR – This unit may only combust natural gas OR – average hourly restriction on glass production M – compliance demonstrated by records of combusting only natural gas & daily glass production records and hours of operation ET - No testing required to demonstrate compliance per EG#16 due to low emissions rate CAM – not subject to CAM, no control and emissions less than major source threshold.
	Particulate Emissions (PE) – 2.41 tons per rolling, 12-month period	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Basis is OAC rule 3745-31-05(A) BAT OR – This unit may only combust natural gas OR – average hourly restriction on glass production OR – Operation of Osprey fabric filter when emission unit in operation M – compliance demonstrated by records of combusting only natural gas, operation of fabric filter, daily glass production records, and hours of operation CAM – not subject to CAM, uncontrolled emissions less than major source threshold.
	Particulate matter less than or equal to 10 microns in diameter (PM_{10}) – 2.41	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Basis is OAC rule 3745-31-05(A) BAT OR – This unit may only combust natural gas OR – average hourly restriction on glass production OR – Operation of Osprey fabric filter

	tons per rolling, 12-month period														when emission unit in operation M – compliance demonstrated by records of combusting only natural gas, operation of fabric filter, daily glass production records, and hours of operation CAM – not subject to CAM, uncontrolled emissions less than major source threshold.
	Particulate matter less than or equal to 10 microns in diameter (PM_{10}) – 0.551 pound per hour	31-10 through 20	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Basis is result of PSD review for major increase OR – This unit may only combust natural gas OR – average hourly restriction on glass production OR – Operation of Osprey fabric filter when emission unit in operation M – compliance demonstrated by records of combusting only natural gas, operation of fabric filter, daily glass production records, and hours of operation ET - stack test required within six months of permit expiration CAM – not subject to CAM, uncontrolled emissions less than major source threshold.
	Volatile Organic Compounds (VOC) – 0.20 pound per hour; 0.88 ton per rolling, 12-month period	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Basis is OAC rule 3745-31-05(A) BAT OR – This unit may only combust natural gas OR – average hourly restriction on glass production M – compliance demonstrated by records of combusting only natural gas, daily glass production records, and hours of operation ET - No testing needed to demonstrate compliance per EG#16 due to low

															emission rate CAM – not subject to CAM, no control and emissions less than major source threshold.
	Sulfur Dioxide (SO_2) – negligible emissions	18-06(C)	Y	Y	N	N	N	N	N	N	N	N	N	N	Basis is OAC rule 3745-31-05(A) BAT ND – exempt – exclusive combustion of natural gas and less than 1000 pounds per hour process rate CAM – not subject to CAM, no control and emissions less than major source threshold.
	Visible PE from any stack shall not exceed 20% opacity as a 6-minute average	17-07(A)	N	N	Y	N	Y	N	Y	N	Y	N	N	N	M - Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.
	Particulate Emissions (PE) - 0.551 pound per hour	17-11(B)(1)	N	N	Y	N	Y	N	Y	N	Y	N	N	N	OR – This unit must combust natural gas only OR – average hourly restriction on glass production OR – Operation of Osprey fabric filter when emission unit in operation M – compliance demonstrated by records of combusting natural gas only, operation of fabric filter, daily glass production records, and hours of operation
P239, P240	Carbon Monoxide (CO) –79.72 tons per rolling, 12-month period	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Basis is OAC rule 3745-31-05(A) BAT OR – Exclusive combustion of natural gas. OR – average hourly restriction on glass production M, R, &Rp- compliance demonstrated by records of combusting natural gas only, daily glass production records, and hours

															of operation CAM – not subject to CAM, no control and emissions less than major source threshold.
	Carbon Monoxide (CO) – 18.2 pounds per hour	31-10 through 20	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Basis is result of PSD review for major increase OR – Exclusive combustion of natural gas. OR – average hourly restriction on glass production M, R, &Rp- compliance demonstrated by records of combusting natural gas only, daily glass production records, and hours of operation ET - stack test required within six months of permit expiration CAM – not subject to CAM, no control and emissions less than major source threshold.
	Nitrogen oxides (NO_x)- 0.09 pound per hour; 0.39 ton per rolling, 12-month period	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Basis is OAC rule 3745-31-05(A) BAT OR – Exclusive combustion of natural gas. OR – average hourly restriction on glass production M, R, &Rp- compliance demonstrated by records of combusting only natural gas & glass production records ET - No testing needed to demonstrate compliance per EG#16 due to low emissions rate CAM – not subject to CAM, no control and emissions less than major source threshold.
	Particulate Emissions (PE)- 9.7 tons per rolling, 12-month period	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Basis is OAC rule 3745-31-05(A) BAT OR – Exclusive combustion of natural gas. OR – Operation of wet scrubber when emission unit in operation

															OR – average hourly restriction on glass production M, R, &Rp- compliance demonstrated by records of combusting only natural gas, operation of wet scrubber, daily glass production records, and hours of operation CAM – not subject to CAM, uncontrolled emissions less than major source threshold.
	Particulate matter less than or equal to 10 microns in diameter (PM_{10})- 9.7 tons per rolling, 12-month period	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Basis is OAC rule 3745-31-05(A) BAT OR – Exclusive combustion of natural gas. OR – Operation of wet scrubber when emission unit in operation OR – average hourly restriction on glass production M, R, &Rp- compliance demonstrated by records of combusting only natural gas, operation of wet scrubber, daily glass production records, and hours of operation CAM – not subject to CAM, uncontrolled emissions less than major source threshold.
	Particulate matter less than or equal to 10 microns in diameter (PM_{10})- 2.22 pounds per hour	31-10 through 20	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Basis is result of PSD review for major increase OR – Exclusive combustion of natural gas. OR – Operation of wet scrubber when emission unit in operation OR – average hourly restriction on glass production M, R, &Rp- compliance demonstrated by records of combusting only natural gas, operation of wet scrubber, daily glass production records, and hours of operation ET - stack test required within six months of permit expiration CAM – not subject to CAM, uncontrolled

															emissions less than major source threshold.
	Sulfur Dioxide (SO_2) – negligible emissions	18-06(C)	Y	Y	N	N	N	N	N	N	N	N	N	N	Basis is OAC rule 3745-31-05(A) BAT ND – exempt – exclusive combustion of natural gas and less than 1000 pounds per hour process weight
	Volatile Organic Compounds (VOC) – 0.39 pound per hour; 1.71 tons per rolling, 12-month period	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Basis is OAC rule 3745-31-05(A) BAT OR – Exclusive combustion of natural gas. OR – average hourly restriction on glass production M, R, &Rp- compliance demonstrated by records of combusting natural gas only, daily glass production records, and hours of operation ET - No testing needed to demonstrate compliance per EG#16 due to low emission rate
	Visible PE from any stack shall not exceed 20% opacity as a 6-minute average	17-07(A)	N	N	Y	N	Y	N	Y	N	Y	N	N	N	M - Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.
	Particulate emissions (PE)- 2.22 pounds per hour	17-11(B)(1)	N	N	Y	N	Y	N	Y	N	Y	N	N	N	Limitation: Per Table I allowable emissions of 2.22 pounds per hour at hourly process weight of 0.4 tons per hour. ET – not required since PM_{10} emissions are required to be tested
	none	18-06(C)	N	Y	N	N	N	N	N	N	N	N	N	N	ND – exempt – less than 1000 pounds per hour process weight and combustion of natural gas only.

Ohio | Environmental Protection Agency

DRAFT

Division of Air Pollution Control
Title V Permit
for
Johns Manville - Waterville 07

Facility ID:	0448000013
Permit Number:	P0088008
Permit Type:	Renewal
Issued:	6/17/2011
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance

Ohio Environmental Protection Agency

Division of Air Pollution Control
Title V Permit
for
Johns Manville - Waterville 07

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Authorization

Facility ID: 0448000013
Facility Description:
Application Number(s): A0019123
Permit Number: P0088008
Permit Description: Renewal of Title V Permit for production of glass fibers from glass marbles into mats and loose glass fibers.
Permit Type: Renewal
Issue Date: 6/17/2011
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Superseded Permit Number: P0088007

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

Johns Manville - Waterville 07
7500 Dutch Road
Waterville, OH 43566

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604
(419)936-3015

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 Toledo Department of Environmental Services. 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 (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director

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

(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

(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 (i.e., postmarked) 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 scheduled maintenance, 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 promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) 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 (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency 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."

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

(5) Reports of any required monitoring and/or record keeping information shall be submitted to Toledo Department of Environmental Services.

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

3. 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) The permittee must comply with all terms and conditions of this permit. 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.

c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with Standard Term and Condition 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.

(1) 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: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; orthepermittee 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 ; ora combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminent 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.Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(3) 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency) 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 (i.e., postmarked) on or before April 30th of each year during the permit term.

(2) Compliance certifications shall include the following:

a. An identification of each term or condition of this permit that is the basis of the certification.

b. The permittee's current compliance status.

c. Whether compliance was continuous or intermittent.

d. The method(s) used for determining the compliance status of the source currently and over the required reporting period.

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 appropriate Ohio EPA District Office or local air agency 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 appropriate District Office of the Ohio EPA or local air agency 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 Fed. Reg. 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 has 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.

No emissions unit 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 opening 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 RequirementsUnder 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 appropriate Ohio EPA District Office or local air agency.

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 appropriate Ohio EPA District Office or local air agency. 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 (i.e., postmarked) 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.)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.

25. 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))

26. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air

agency 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).

27. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

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

28. 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 (i.e., postmarked) 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 potentials to emit; or

c) where the company's responsible official has certified that an emissions unit has been permanently shut down.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) None.

2. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart HHHH: P014. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the Toledo Division of Environmental Services.

3. The following emissions unit contained in this permit is subject to 40 CFR Part 63, Subpart DDDDD: B005. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the Toledo Division of Environmental Services.

4. The following insignificant emissions units are located at this facility that are enforceable under state law only:

   B005 Lockhead Boiler (5.2 mmBtu/hr, natural gas fired)
   B500 No. 4 AMU King Space Heater
   B501 No. 7 AMU King Space Heater
   B502 No. 8 AMU King Space Heater
   B503 No. 2 AMU King Space Heater
   B504 No. 9 AMU King Space Heater
   B505 No. 10 AMU King Space Heater
   B506 No. 1 AMU King Space Heater
   B507 No. 3 AMU King Space Heater
   B508 No. 5 AMU King Space Heater
   B509 No. 6 AMU King Space Heater
   B510 Mat Dept. King Space Heater
   B511 Silver King Space Heater
   B512 17 King #35 Space Heater
   B513 17 King #36 Space Heater
   B514 17 King #37 Space Heater
   B515 17 King #38 Space Heater
   B516 17 King #39 Space Heater
   B517 17 King #40 Space Heater
   F002 Mat Scrap Collection
   F003 Glass Tippers/Handling
   P010 HPQ Leach Tanks
   P011 Quartz Drying Ovens (natural gas fired)
   P028 Curing Oven (<10 mmBtu/hr, natural gas fired)
   P029 Drying Oven (<1 mmBtu/hr, natural gas fired)
   P031 Fiberglass Wool Unit Melter (<1 mmBtu/hr, natural gas fired)
   P252 LOI Oven Mats
   P241 Briquettor/Waste Min. system
   T001 Cold Cleaners
   T002 Leach Tank

5. The following insignificant emissions units are located at this facility are federally enforceable:
   P012 71, 72, & Res. Unit (Registration 1/28/1977)
   P016 PangbornAirblast System with Fabric Filter (Registration 8/31/1984)
   P017 Mat Edge Trim Machine (PTI 04-316 2/22/1986)
   P021 2 Meter Melter and Transfer System (PTI 04-471 6/15/1988)
   P022 Electric Heat Treat Oven HPQ (PTI 04-471 6/15/1988)
   P023 Maintenance Sandblaster (PTI 04-471 6/15/1988)
   P024 Sliver Exhaust (PTI 04-620 7/19/1990)
   P025 Sliver Dust Collection (PTI 04-620 7/19/1990)
   P026 Sliver Fuzz Vacuum System (PTI 04-620 7/19/1990)
   P027 Wood Shop Cyclone (PTI 04-620 7/19/1990)
   P251 Burner Test Stand (OAC rule 3745-31-03(A)(1)(a))
   P253 Bench Scale Machining (OAC rule 3745-31-03(A)(1)(y))

6. Pursuant to 40 CFR Part 64, the permittee has submitted and the Ohio EPA has approved compliance assurance monitoring plan for the emissions unit P014 at this facility. The permittee shall comply with the provisions of the plan during any operation of the aforementioned emissions unit.

C. Emissions Unit Terms and Conditions

1. P014, 9272 Mat Machine (PTI 04-1000)

Operations, Property and/or Equipment Description:

MAT MACHINE OVEN 9272 with catalytic incinerator

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-1000 issued 3/27/1996)	1.8 pounds of carbon monoxide (CO) per hour and 7.8 tons of CO per year
		0.73 pound of nitrogen oxides (NO_x) per hour 3.2 tons of NO_x per year
		1.2 pounds of particulate emissions (PE) per hour 5.1 tons of PE per year
		0.03 pound of sulfur dioxide (SO_2) per hour 0.13 ton of SO_2 per year
		5.3 pounds of volatile organic compounds (VOC) per hour and 90% destruction efficiency of VOC emissions by catalytic incineration **or** maximum uncontrolled VOC emissions of 3 pounds per hour and 15 pounds per day.
		23 tons of VOC emissions per year
		3.3 pounds of formaldehyde per hour 14.5 tons of formaldehyde per year
		See b)(2)a., b)(2)c, and b)(2)d.
b.	OAC rule 3745-17-07(A)	Visible PE from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

c.	OAC rule 3745-17-11(B)(1)	See b)(2)b.
d.	OAC rule 3745-18-06(A)	See b)(2)b.
e.	OAC rule 3745-21-07(G)(1)	Exempt See b)(2)e. and c)(3).
g.	40 CFR Part 63, Subpart HHHH (40 CFR63.2980–63.3005) [In accordance with 40 CFR 63.2983(a), this emissions unit is a curing oven at an existing wet-formed fiberglass mat production facility that is a major source of hazardous air pollutants (HAP) subject to the emissions limitations/control measures specified in this section.]	Comply with either limit at all times, except during periods of startup, shutdown or malfunction: 0.03 kilogram formaldehyde per megagram (0.05 pounds per ton); or reduce uncontrolled formaldehyde emissions by 96 percent or more. [40 CFR 63.2983(a)]
h.	40 CFR 63.1–15 (40 CFR 63.3001)	Table 2 to Subpart HHHH of 40 CFR Part 63 – Applicability of General Provisions to Subpart HHHH shows which parts of the General Provisions in 40 CFR 63.1-15 apply.
i.	40 CFR Part 64 – Compliance Assurance Monitoring (CAM)	see b)(2)f., c)(4), d)(2) through d)(5), and e)(2)

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), OAC rule 3745-21-07(G)(1), and OAC rule 3745-18-06(A).

b. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

c. The allowable emission rates are the total allowable emission rates for all of the emission points associated with this emission unit.

d. The VOC and formaldehyde emission limitations are based on reported fiber slurry compositions from emissions testing performed on November 15, 1990. The report was submitted in January of 1991 as part of a PTI modification application after the incinerator was installed on this emissions unit. Any change in operation and any modification to this process that may result in an increase in emissions must be reported to the Toledo Division of Environmental Services (TES), and the permittee shall obtain a permit to install prior to the change or modification.

e. The requirement of no photochemically reactive material employed shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic

compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, and reporting requirements related to this limitation included in c)(3), d)(7), and e)(4) shall be void.

f. Except where employing only compliant materials (i.e., uncontrolled OC emissions are less than 3 pounds per hour and 15 pounds per day), all of the OC emissions from this emissions unit shall be vented to a catalytic incinerator that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

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

(2) The maximum operating rate of this emission unit shall not exceed 237 tons per day of fiber slurry.

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

(3) The permittee shall not employ any photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit.

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

[Note: After the revision to OAC rule 3745-21-07(G) is approved into the Ohio SIP, c)(3) will be voided entirely.]

(4) The catalytic incinerator shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The conversion efficiency of the catalyst, as determined in an annual catalyst activity test, shall be sufficient to meet the destruction efficiency and control efficiency requirements of this permit at a test temperature that is equal to that temperature at which the inlet to the catalyst bed is set. Solvent loading during the catalyst activity test shall be consistent with the test laboratory's normal testing protocol.

[OAC rule 3745-77-07(A)(1) and 40 CFR Part 64]

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

63.2984(a) and 63.2986(g)(1)	Maintain operating parameters within established limits or ranges specified in the operation, maintenance, and monitoring (OMM) plan. Comply with the operating limits specified in 63.2984(a)(2) through (a)(4) at all times, except during periods of startup, shutdown, or malfunction.

63.2984(a)(2)	free-formaldehyde content restriction
63.2984(a)(3)	wet-formed fiberglass mat production process urea formaldehyde resin solids application rate restriction
63.2984(a)(4)	maintain compliance with the alternative monitoring parameters and operating limits for the catalytic oxidizer specified in the OMM
63.2984(b)	operating parameter deviation corrective action required within 1-hour
63.2984(c)	maintain and inspect control devices according to OMM plan
63.2984(d)	Develop and operate according to OMM at all times. Include operating parameters specified in 63.2984(a)(2) through (a)(4) in the OMM plan.
63.2984(e)	Formaldehyde emission capture and conveying requirements
63.2986(g)(2)	Operate and maintain affected source, including air pollution control and monitoring equipment, according to 63.6(e)(1).

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit(s) controlled by the catalytic incinerator is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance. The acceptable average temperature difference across the catalyst bed, for any 3-hour block

of time (when the emissions unit(s) is/are in operation), shall not be less than 80 percent of the average temperature difference measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(3) The permittee shall properly install, operate, and maintain continuous temperature monitors and recorder(s) that measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit(s) is/are in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitors and recorder(s) shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the catalytic incinerator is required to demonstrate compliance with the OC limitation contained in this permit:

a. all 3-hour blocks of time, when the emissions unit(s) controlled by the catalytic incinerator was/were in operation, during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;

b. all 3-hour blocks of time, when the emissions unit(s) controlled by the catalytic incinerator was/were in operation, during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance; and

c. a log or record of the operating time for the capture (collection) system, catalytic incinerator, monitoring equipment, and the associated emissions unit(s).

The permittee may use a temperature chart recorder or equivalent recording device as the log that documents the temperature differential across the catalyst bed. These records shall be maintained at the facility for a period of no less than 3 years.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(4) The permittee shall perform a preventative maintenance inspection of the catalytic incinerator on an annual basis to evaluate the performance of the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations, and shall include a physical inspection of the unit and all of the associated equipment, including but not limited to burners, controls, dampers, valves, and monitoring and recording equipment. Repair and replacement of equipment and the catalyst shall be performed as determined by the inspection. During each annual inspection a sample of the catalyst material shall be collected from the catalyst

bed and used to perform a catalyst activity test. The permittee shall maintain a record of the results of each annual inspection and the results of each annual catalyst activity test.

The permittee shall also perform weekly inspections of the external integrity of the catalytic incinerator. Records shall be maintained of the inspections and the date(s) of catalyst replacement, and if only partial, the amount or percent of the total catalyst replaced.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(5) Whenever the monitored average temperature of the exhaust gases immediately before the catalyst bed and/or the average temperature difference across the catalyst bed deviates from the range or limit 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(s)/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:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

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

e. the temperature of the exhaust gases immediately before the catalyst and the average temperature difference across the catalyst bed immediately after the corrective action was implemented; and

f. 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.

The temperature ranges are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range(s) based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) of the controlled pollutant(s). In addition, approved revisions to the temperature range(s) 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.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(6) The permittee shall maintain daily records of the total fiber slurry throughput and organic content (based upon formulation data) as well as any corrective actions that were taken to achieve compliance.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) For each day during which the permittee employs a photochemically reactive material, the permittee shall maintain a record of the type and quantity of photochemically reactive material employed in this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

[Note: After the revision to OAC rule 3745-21-07(G) is approved into the Ohio SIP, d)(7) will be voided entirely.]

(8) The permittee shall maintain monthly records of the hours of operation for this emissions unit and the rolling, 12-month summation of the hours of operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(9) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 location and 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;

a. the total duration of any visible emission incident; and

b. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(10) Notwithstanding the frequency of reporting requirements specified in d)(9), the permittee may reduce the frequency of visual observations from weekly to once every two weeks for this emissions unit if the following conditions are met:

a. for one full quarter the facility's visual observations indicate no visible emissions; and

b. thepermittee continues to comply with all the record keeping and monitoring requirements specified in d)(9).

The permittee shall revert to weekly observations if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(11) The permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR Part 63, Subpart HHHH, including the following sections:

63.2986(g)(3)	develop written startup, shutdown, and malfunction plan (SSMP) according to 63.6(e)(3)
63.2987(a)	operation, maintenance, and monitoring (OMM) plan requirements
63.2987(b)	OMM plan routine & long-term maintenance and inspections schedules for control devices.
63.2987(c)	OMM procedures for responding to operating parameter deviations.
63.2987(d)	OMM plan recordkeeping
63.2989(a)	revising OMM plan operating limits
63.2989(b)	revising OMM plan inspection and maintenance procedures
63.2989(c)	revisions to inspection and maintenance plan procedures specified in 63.2987(b) do not require new performance test
63.2996 and 63.2997(b)	monitor the parameters specified in Table 1 of this subpart
63.2998(a)	maintain records required by 63.10 and Table 2 of this subpart
63.2998(b)	maintain a record of the OMM plan

63.2998(c)	maintain values of monitored parameters listed in Table 1 of this subpart
63.2998(d)	records of control device inspections and maintenance
63.2998(e)	records of operating parameter deviations
63.2998(f)	records related to startup, shutdown and malfunction
63.2998(g)	records of operation under alternative operating condition
63.2999(a)	records retention duration
63.2999(b)	form of records

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. each period of time (start time and date, and end time and date) when the average temperature of the exhaust gases immediately before the catalyst bed and/or the average temperature difference across the catalyst bed was outside of the acceptable ranges;

ii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the catalytic incinerator;

iii. each incident of deviation described in i. or “ii.” (above) where a prompt investigation was not conducted;

iv. each incident of deviation described in i. or “ii.” where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature of the exhaust gases immediately before the catalyst bed or the average temperature difference across the catalyst bed into

compliance with the acceptable range(s), was determined to be necessary and was not taken; and

v. each incident of deviation described in "i." or "ii." where proper records were not maintained for the investigation and/or the corrective action(s).

The permittee shall submit the results of the catalyst activity test(s) in the last quarterly report for each year, along with a summary of the results of the annual inspection of the internal integrity of the catalytic incinerator.

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

[OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-77-07(C)(1), and 40 CFR Part 64]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the fiber slurry throughput exceeded 237 tons per day in this emissions unit as well as the corrective actions that were taken to achieve compliance.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit deviation (excursion) reports that identify each day when a photochemically reactive material is employed in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

[Note: After the revision to OAC rule 3745-21-07(G) is approved into the Ohio SIP, e)(4) will be voided entirely.]

(5) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) Unless specified otherwise, the deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) 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 3745-77-07(C)(1)]

(8) The permittee submit semiannual reports and other such notifications and reports through the Ohio EPA's eBusiness Center: Air Services online web portal as are required pursuant to 40 CFR Part 63, Subpart HHHH, per the following sections:

63.3000(a)	submit notifications and reports specified in Table 2 of this subpart
63.3000(b)	notification of compliance status report
63.3000(c)	semi-annual reporting requirements
63.3000(d)	performance test reporting requirements
63.3000(e)	startup, shutdown, malfunction reports

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

1.2 pounds of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

5.1 tons of PE per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly particulate emission limitation of 1.2 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

1.8 pounds of CO per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

7.8 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly CO emission limitation of 1.8 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

0.73 pound of NO_x per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

3.2 tons of NO_x per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly NO_x emission limitation of 0.73 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

5.3 pounds of OC per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 18, 25 or 25A , as appropriate of 40 CFR Part 60 Appendix A, and the methods and procedures specified in OAC rule 3745-21-10. Use of Method 18, 25 or 25A is to be selected based on the results of pre-survey stack sampling and U.S. EPA guidance documents. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

i. Emission Limitation:

23 tons of OC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly OC emission limitation of 5.3 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

j. Emission Limitation:

0.03 pound of SO_2 per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 6 of 40 CFR Part 60 Appendix A and the methods and procedures specified in OAC rule 3745-18-04. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

k. Emission Limitation:

0.13 ton of SO_2 per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly SO_2 emission limitation of 0.03 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

l. Emission Limitation:

3.3 pound of formaldehyde per hour

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in Methods 1 through 4 of 40 CFR Part 60, Appendix A, and Method 316 of 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 3745-77-07(C)(1)]

m. Emission Limitation:

14.5 tons of formaldehyde per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly formaldehyde emission limitation of 3.3 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

n. Emission Limitation:

0.03 kilogram formaldehyde per megagram (0.05 pounds per ton)

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing requirements specified in 40 CFR 63.2992 and 63.2993.

[Authority for term: OAC rule 3745-77-07(C)(1)]

o. Emission Limitation:

reduce uncontrolled formaldehyde emissions by 96 percent or more

Applicable Compliance Method:

If required, compliance shall be demonstrated using the methods and procedures specified in 40 CFR 63.2992, 63.2993, 63.2994, and 63.2995.

[Authority for term: OAC rule 3745-77-07(C)(1)]

[OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted every 5 years and at any time to change the limit or operating range for any operating limit in the OMM plan established during a previous compliance test.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates and the incinerator destruction efficiency for OC specified in b), and the formaldehyde emission limitations specified in b).

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

i. for OC, Method(s) 1 through 4 and 18, 25 or 25A, as appropriate of 40 CFR Part 60, Appendix A, and the methods and procedures specified in OAC rule 3745-21-10. Use of Method 18, 25 or 25A is to be selected based on the results of pre-survey stack sampling and U.S. EPA guidance documents; and

ii. for formaldehyde, the methods and procedures specified in 40 CFR 63.2992, 63.2993, 63.2994, and 63.2995.

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

d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services (TES).

e. The OC 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 OAC rule 3745-21-10. 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.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall conduct, or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in this permit. An intent to test notification shall not be required for catalyst activity testing. The procedures for the catalyst activity test shall be conducted in accordance with the manufacturer's recommendations and as required by the appropriate test method.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

g) Miscellaneous Requirements

(1) None.

2. P018, 300X LINE2

Operations, Property and/or Equipment Description:

300X LINE 2 (MELTERS 3&4) vented to Ducon scrubbers

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-366 issued 12/10/1986)	1.92 pounds of particulate emissions (PE) per hour
		8.41 tons of PE per year
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-11(B)(1)	See b)(2)b.

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).

b. The emission limitation required by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

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

(2) The emissions from this emissions unit shall be vented to the wet scrubber at all times the emissions unit is in operation.

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

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range for the pressure drop across each scrubber, that must be maintained in order to demonstrate compliance, shall be between 2 to 6 inches of water.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable scrubber liquid flow rate, that shall be maintained in order to demonstrate compliance, shall not be less than 3,000 gallons per hour.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, gauge) and the scrubber liquid flow rate (in gallons per minute) during operation of this/these emissions unit(s), including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubber and the scrubber liquid's flow rate at least once during each of the (6) 4-hour blocks of time during the day when the emissions unit is operated. 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.

Whenever the monitored value for any parameter 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:

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 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:

a. a description of the corrective action;

b. the date the corrective action was completed;

c. the date and time the deviation ended;

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

e. the pressure drop and flow rate readings immediately after the corrective action was implemented; and

f. 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 pressure drop and liquid flow rate are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop or liquid flow rate based upon information obtained during future performance tests that demonstrate compliance with the allowable particulate emission rate for this/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 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(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 scrubber and/or the liquid flow rate was/were outside of the appropriate range or exceeded the applicable limit contained in this permit;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;

c. each incident of deviation described in "a" or "b" (above) where a prompt investigation was not conducted;

d. each incident of deviation described in "a" or "b" where prompt corrective action, that would bring the pressure drop and/or liquid flow rate into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in "a" or "b" 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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average from any stack serving this emissions unit

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

1.92 pounds of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

8.41 tons of PE per year

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly particulate emission limitation (1.92 pounds per hour) by the maximum annual hours of operation (8,760 hrs/yr), and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The permittee shall record the pressure drop across the scrubber, the scrubbing liquid flow rate, and the average hourly rate of glass production during each test run.

e. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the TES.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

3. P019, 300X LINE 1

Operations, Property and/or Equipment Description:

300X LINE 1 (MELTERS 1&2) with Ducon Scrubbers

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-237 issued 4/25/1984)	2.22 pounds of particulate emissions (PE) per hour
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-11(B)(1)	See b)(2)b.

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).

b. The emission limitation required by this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

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

(2) The permittee shall operate the wet scrubber control unit whenever this emissions unit is in operation.

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

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range of the pressure drop across each scrubber, that must be maintained in order to demonstrate compliance, shall be between 2 to 6 inches of water.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable scrubber liquid flow rate, that shall be maintained in order to demonstrate compliance, shall not be less than 3,000 gallons per hour.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, gauge) and the scrubber liquid flow rate (in gallons per minute) during operation of this/these emission unit(s), including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubber and the scrubber liquid's flow rate at least once during each of the (6) 4-hour blocks of time during the day when the emissions unit is operated. 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.

Whenever the monitored value for any parameter 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:

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 finding and recommendations.

In response to each required investigation to determine the cause of the 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:

a. A description of the corrective action;

b. The date the corrective action was completed;

c. The date and time of the deviation ended;

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

e. The pressure drop and flow rate readings immediately after the corrective action was implemented; and

f. The name(s) of the personnel who performed the work.

Investigation and records required by the paragraph do no 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 pressure drop and liquid flow rate are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop or liquid flow rate based upon information obtained during future performance tests that demonstrate compliance with the allowable particulate emission rate for this/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 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. Each period of time (start time and date, end time and date) when the pressure drop across the scrubber and/or the liquid flow rate was/were outside of the appropriate range or exceeded the applicable limit contained in this permit;

b. Any period of time (start time and date, end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;

c. Each incident of deviation described in 'a' or 'b' (above) where a prompt investigation was not conducted;

d. Each incident of deviation described in 'a' or 'b' where prompt corrective action, that would bring the pressure drop and/or liquid flow rate into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. Each incident of deviation described in 'a' and 'b' 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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

2.22 pounds of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The permittee shall record the pressure drop across the scrubber, the scrubbing liquid flow rate, and the average hourly rate of glass production during each test run.

e. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the TES.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

4. Emissions Unit Group -300X Lines 3 & 4: P239, P240.

EU ID	Operations, Property and/or Equipment Description
P239	300X LINE 3 Melter 5
P240	300X LINE 4 melter 6

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (P0107265 issued 2/14/2011)	79.72 tons of carbon monoxide (CO) per rolling, 12-month period
		0.09 pound of nitrogen oxides (NO_x) per hour 0.39 ton of NO_x per rolling, 12-month period
		9.7 tons of particulate emissions (PE) per rolling, 12-month period
		9.7 tons of particulate matter less than or equal to 10 microns in diameter (PM_{10}) per rolling, 12-month period
		sulfur dioxide (SO_2) - negligible
		0.39 pound of volatile organic compounds (VOC) per hour 1.71 tons of VOC per rolling, 12-month period
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-11(B)(1)	2.22 pounds of PE per hour
d.	OAC rule 3745-18-06	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	2.22 pounds of PM_{10} per hour
		18.2 pounds of CO per hour

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1) and OAC rule 3745-17-07(A)(1).

b. This process is exempt from the requirements specified in OAC 3745-18-06 since the maximum process weight rate is less than 1000 pounds per hour and burns natural gas only.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[Authority for term: OAC rule 3745-31-05(A)(3) and 3745-77-07(A)(1)]

(2) The permittee shall employ the wet scrubber at all times during the operation of this emissions unit.

[Authority for term: OAC rule 3745-31-05(A)(3) and 3745-77-07(A)(1)]

(3) The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column, when the emissions unit is in operation.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(4) The total glass production from this emissions unit shall not exceed 800 pounds per hour, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in f)(2), at the higher average hourly glass pull rate.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(5) The water flow rate for the wet scrubber shall be maintained at a minimum of 3000 gallons per hour, when the emissions unit is in operation.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the wet scrubber while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). Inspection records shall include the identity of the device inspected, a brief description of the

working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection.

The permittee shall record the pressure drop across the wet scrubber, in inches of water column, once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall properly operate and maintain equipment to monitor the scrubbing liquid flow rate while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the scrubbing liquid flow rate once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain a log or record of the downtime for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit. Record of downtime shall include the specific identification of each period of excess emissions, as indicated by monitoring data.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall maintain monthly records of the following information for this emissions unit:

a. the total glass produced, in pounds;

b. the total hours of operation;

c. the average hourly amount of glass produced per hour (a/b); and

d. a rolling, 12-month total glass produced.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Toledo Division of Environmental Services (TES) in writing of any daily record showing that the associated wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record

and shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portalTES within 30 days after the incident occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the wet scrubber did not comply with the specified range of 2 to 6 inches of water column.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in c)(4).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the water flow rate through the wet scrubber did not comply with the minimum flow rate of 3000 gallons per hour.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) Unless otherwise specified, the deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

2.22 pounds of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A, using the methods and procedures specified in OAC rule 3745-17-03(B)(10), or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:
9.7 tons of PE per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 2.22 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 tons per year.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

2.22 pounds of PM_{10} per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 201 land 202 of 40 CFR part 51, Appendix M, or other U.S. EPA-approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

9.7 tons of PM_{10} per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 2.22 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 tons per year.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

18.2 pounds of CO per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A, or other U.S. EPA-approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

79.72 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 18.2 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

0.09 pound of NO_x per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA-approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

i. Emission Limitation:

0.39 ton of NO_x per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.09 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

j. Emission Limitation:

0.39 pound of VOC per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 25 of 40 CFR Part 60 Appendix A, using the methods and procedures specified in OAC rule 3745-21-10, or other U.S. EPA-approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

k. Emission Limitation:

1.71 tons of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.39 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

l. Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

If required, the permitte shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 though 4 and 6 of 40 CFR Part 60, Appendix A, or other U.S. EPA-approved test method, with prior approval from the Ohio EPA.

Compliance shall be presumed based upon the exclusive combustion of natural gas, a maximum gas usage rate of 2100 cubic feet per hour, and the monitoring and record keeping requirements of d)(1) and e)(1), respectively.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the PM_{10} and CO emission limitations.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 201 and 202 of 40 CFR Part 51, Appendix M and for CO, Method 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The permittee shall record the pressure drop across the scrubber, the scrubbing liquid flow rate, and the average hourly rate of glass production during each test run.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the TES.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Miscellaneous Requirements

(1) None.

5. Emissions Unit Group -MIcrostand Sources 33A-33F: P151, P152, P153, P154, P155, P156.

EU ID	Operations, Property and/or Equipment Description
P151	This process operates by melting glass using natural gas to make glass fibers
P152	This process operates by melting glass using natural gas to make glass fibers
P153	This process operates by melting glass using natural gas to make glass fibers
P154	This process operates by melting glass using natural gas to make glass fibers
P155	This process operates by melting glass using natural gas to make glass fibers
P156	This process operates by melting glass using natural gas to make glass fibers

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (P0107265 issued 2/14/2011)	27.33 tons of carbon monoxide (CO) per rolling, 12-month period
		0.21 pound of nitrogen oxides (NO_x) per hour 0.92 ton of NO_x per rolling, 12-month period
		2.41 tons of particulate emissions (PE) per rolling, 12-month period
		2.41 tons of particulate matter less than or equal to 10 microns in diameter (PM_{10}) per rolling, 12-month period
		0.20 pound of volatile organic compounds (VOC) per hour 0.88 ton of VOC per rolling, 12-month period
		sulfur dioxide (SO2) - negligible
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

c.	OAC rule 3745-17-11(B)(1)	0.551 pound of PE per hour
d.	OAC rule 3745-18-06(C)	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour
		6.24 pounds of CO per hour

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1) and OAC rule 3745-17-07(A)(1).

b. This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 pounds per hour and burns natural gas only.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[Authority for term: OAC rule 3745-31-05(A)(3) and 3745-77-07(A)(1)]

(2) The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(3) The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

[Authority for term: OAC rule 3745-31-05(A)(3) and 3745-77-07(A)(1)]

(4) The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

[Authority for term: OAC rule 3745-31-05(A)(3) and 3745-77-07(A)(1)]

(5) The average hourly total glass production rate for emissions units P151 through P156, combined, shall not exceed the value (pounds per hour) recorded during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in f)(2), at the higher average hourly glass pull rate.

[Authority for term: OAC rule 3745-31-05(A)(3) and 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P151 through P156;

b. the total hours of operation for emissions units P151 through P156; and

c. the average hourly glass production rate (a/b).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 location and 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 emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) Notwithstanding the frequency of reporting requirements specified in e), the permittee may reduce the frequency of visual observations from weekly to once every two weeks for this emissions unit if the following conditions are met:

a. for one full quarter the facility's visual observations indicate no visible emissions; and

b. thepermittee continues to comply with all the record keeping and monitoring requirements specified in d)(6).

The permittee shall revert to weekly observations if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Toledo Division of Environmental Services (TES) in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portalTES within 30 days after the incident occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in c)(3).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in c)(4):

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in c)(5).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) Deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(8) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1). of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

0.551 pound of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

2.41 tons of PE per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

0.551 pound of PM_{10} per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 201

and 202 of 40 CFR Part 51, Appendix M, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

2.41 tons of PM_{10} per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

6.24 pounds of CO per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

0.21 pound of NO_x per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 7 of 40 CFR Part

60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

i. Emission Limitation:

0.92 ton of NO_x per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

j. Emission Limitation:

0.20 pound of VOC per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-21-10, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

k. Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

l. Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1

through 4 and 6 of 40 CFR part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of d)(1) and e)(1), respectively.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the PM_{10} and CO emission limitations.

c. The permittee shall test stack 63 which serves Osprey 33 (control for P151 through P156) and Osprey 34 (control for P157 through P162). Compliance for each emissions unit shall be determined using an average emission factor (pounds per ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (pounds per ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the TES.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 201 and 202 of 40 CFR Part 51, Appendix M; for CO Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the TES.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

6. Emissions Unit Group -Microstand Sources 1A-28C: P035, P036, P037, P038, P039, P040, P041, P042, P043, P044, P045, P046, P047, P048, P049, P050, P051, P052, P053, P054, P055, P056, P057, P058, P059, P060, P061, P062, P063, P064, P065, P066, P067, P068, P069, P070, P071, P072, P073, P074, P075, P076, P077, P078, P079, P080, P081, P082, P083, P084, P085, P086, P087, P088, P089, P090, P091, P092, P093, P094, P095, P096, P097, P098, P099, P100, P101, P102, P103, P104, P105, P106, P107, P108, P109, P110, P111, P112, P113, P114, P115, P116, P117, P118, P119, P120, P121, P122, P123, P124, P125, P126.

EU ID	Operations, Property and/or Equipment Description
P035	This process operates by melting glass using natural gas to make glass fibers
P036	This process operates by melting glass using natural gas to make glass fibers
P037	This process operates by melting glass using natural gas to make glass fibers
P038	This process operates by melting glass using natural gas to make glass fibers
P039	This process operates by melting glass using natural gas to make glass fibers
P040	This process operates by melting glass using natural gas to make glass fibers
P041	This process operates by melting glass using natural gas to make glass fibers
P042	This process operates by melting glass using natural gas to make glass fibers
P043	This process operates by melting glass using natural gas to make glass fibers
P044	This process operates by melting glass using natural gas to make glass fibers
P045	This process operates by melting glass using natural gas to make glass fibers
P046	This process operates by melting glass using natural gas to make glass fibers
P047	This process operates by melting glass using natural gas to make glass fibers
P048	This process operates by melting glass using natural gas to make glass fibers
P049	This process operates by melting glass using natural gas to make glass fibers
P050	This process operates by melting glass using natural gas to make glass fibers
P051	This process operates by melting glass using natural gas to make glass fibers
P052	This process operates by melting glass using natural gas to make glass fibers
P053	This process operates by melting glass using natural gas to make glass fibers
P054	This process operates by melting glass using natural gas to make glass fibers
P055	This process operates by melting glass using natural gas to make glass fibers
P056	This process operates by melting glass using natural gas to make glass fibers
P057	This process operates by melting glass using natural gas to make glass fibers
P058	This process operates by melting glass using natural gas to make glass fibers
P059	This process operates by melting glass using natural gas to make glass fibers
P060	This process operates by melting glass using natural gas to make glass fibers
P061	This process operates by melting glass using natural gas to make glass fibers
P062	This process operates by melting glass using natural gas to make glass fibers
P063	This process operates by melting glass using natural gas to make glass fibers
P064	This process operates by melting glass using natural gas to make glass fibers
P065	This process operates by melting glass using natural gas to make glass fibers
P066	This process operates by melting glass using natural gas to make glass fibers
P067	This process operates by melting glass using natural gas to make glass fibers
P068	This process operates by melting glass using natural gas to make glass fibers
P069	This process operates by melting glass using natural gas to make glass fibers
P070	This process operates by melting glass using natural gas to make glass fibers
P071	This process operates by melting glass using natural gas to make glass fibers
P072	This process operates by melting glass using natural gas to make glass fibers

EU ID	Operations, Property and/or Equipment Description
P073	This process operates by melting glass using natural gas to make glass fibers
P074	This process operates by melting glass using natural gas to make glass fibers
P075	This process operates by melting glass using natural gas to make glass fibers
P076	This process operates by melting glass using natural gas to make glass fibers
P077	This process operates by melting glass using natural gas to make glass fibers
P078	This process operates by melting glass using natural gas to make glass fibers
P079	This process operates by melting glass using natural gas to make glass fibers
P080	This process operates by melting glass using natural gas to make glass fibers
P081	This process operates by melting glass using natural gas to make glass fibers
P082	This process operates by melting glass using natural gas to make glass fibers
P083	This process operates by melting glass using natural gas to make glass fibers
P084	This process operates by melting glass using natural gas to make glass fibers
P085	This process operates by melting glass using natural gas to make glass fibers
P086	This process operates by melting glass using natural gas to make glass fibers
P087	This process operates by melting glass using natural gas to make glass fibers
P088	This process operates by melting glass using natural gas to make glass fibers
P089	This process operates by melting glass using natural gas to make glass fibers
P090	This process operates by melting glass using natural gas to make glass fibers
P091	This process operates by melting glass using natural gas to make glass fibers
P092	This process operates by melting glass using natural gas to make glass fibers
P093	This process operates by melting glass using natural gas to make glass fibers
P094	This process operates by melting glass using natural gas to make glass fibers
P095	This process operates by melting glass using natural gas to make glass fibers
P096	This process operates by melting glass using natural gas to make glass fibers
P097	This process operates by melting glass using natural gas to make glass fibers
P098	This process operates by melting glass using natural gas to make glass fibers
P099	This process operates by melting glass using natural gas to make glass fibers
P100	This process operates by melting glass using natural gas to make glass fibers
P101	This process operates by melting glass using natural gas to make glass fibers
P102	This process operates by melting glass using natural gas to make glass fibers
P103	This process operates by melting glass using natural gas to make glass fibers
P104	This process operates by melting glass using natural gas to make glass fibers
P105	This process operates by melting glass using natural gas to make glass fibers
P106	This process operates by melting glass using natural gas to make glass fibers
P107	This process operates by melting glass using natural gas to make glass fibers
P108	This process operates by melting glass using natural gas to make glass fibers
P109	This process operates by melting glass using natural gas to make glass fibers
P110	This process operates by melting glass using natural gas to make glass fibers
P111	This process operates by melting glass using natural gas to make glass fibers
P112	This process operates by melting glass using natural gas to make glass fibers
P113	This process operates by melting glass using natural gas to make glass fibers
P114	This process operates by melting glass using natural gas to make glass fibers
P115	This process operates by melting glass using natural gas to make glass fibers
P116	This process operates by melting glass using natural gas to make glass fibers
P117	This process operates by melting glass using natural gas to make glass fibers
P118	This process operates by melting glass using natural gas to make glass fibers

EU ID	Operations, Property and/or Equipment Description
P119	This process operates by melting glass using natural gas to make glass fibers
P120	This process operates by melting glass using natural gas to make glass fibers
P121	This process operates by melting glass using natural gas to make glass fibers
P122	This process operates by melting glass using natural gas to make glass fibers
P123	This process operates by melting glass using natural gas to make glass fibers
P124	This process operates by melting glass using natural gas to make glass fibers
P125	This process operates by melting glass using natural gas to make glass fibers
P126	This process operates by melting glass using natural gas to make glass fibers

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 operations(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. 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)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
b.	OAC rule 3745-17-11(B)(1)	0.551 pound of particulate emissions (PE) per hour (total from all stacks)
c.	OAC rule 3745-18-06(C)	See b)(2)a.

(2) Additional Terms and Conditions

a. This emissions unit has a rated capacity that is less than 1000 pounds per hour process weight input, burns natural gas only and is, therefore, exempt from the requirements of this rule.

b. The emissions from the emissions units listed above shall be vented to the EMC control system when one or more of the emissions units are in operation.

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

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

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

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the EMC control system is between 1.5 to 3.5 inches of water.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the EMC control system when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the EMC control system on daily basis. 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.

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:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

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

e. the pressure drop readings immediately after the corrective action was implemented; and

f. 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 EMC control system is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. 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 3745-77-07(C)(1)]

(4) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 location and 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 emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) Notwithstanding the frequency of reporting requirements specified in e), the permittee may reduce the frequency of visual observations from weekly to once every two weeks for this emissions unit if the following conditions are met:

a. for one full quarter the facility's visual observations indicate no visible emissions; and

b. thepermittee continues to comply with all the record keeping and monitoring requirements specified in d)(3).

The permittee shall revert to weekly observations if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(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 acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in a (above) where a prompt investigation was not conducted;

d. each incident of deviation described in 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 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.

(3) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

0.551 pound of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration..

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using 40 CFR Part 60, Appendix A, Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 pound per hour for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in pounds per hour] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the TES. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

7. Emissions Unit Group -Microstand Sources 29A-29F: P127, P128, P129, P130, P131, P132.

EU ID	Operations, Property and/or Equipment Description
P127	This process operates by melting glass using natural gas to make glass fibers
P128	This process operates by melting glass using natural gas to make glass fibers
P129	This process operates by melting glass using natural gas to make glass fibers
P130	This process operates by melting glass using natural gas to make glass fibers
P131	This process operates by melting glass using natural gas to make glass fibers
P132	This process operates by melting glass using natural gas to make glass fibers

SAME COMMENTS as for 5. (33A-33F) for all remaining emissions units (Sections 7 - 17

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (P0107265 issued 2/14/2011)	27.33 tons of carbon monoxide (CO) per rolling, 12-month period
		0.21 pound of nitrogen oxides (NO_x) per hour 0.92 ton of NO_x per rolling, 12-month period
		2.41 tons of particulate emissions (PE) per rolling, 12-month period
		2.41 tons of particulate matter less than or equal to 10 microns in diameter (PM_{10}) per rolling, 12-month period.
		0.20 pound of volatile organic compounds (VOC) per hour 0.88 ton of VOC per rolling, 12-month period
		sulfur dioxide (SO_2) - negligible
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

c.	OAC rule 3745-17-11(B)(1)	0.551 pound of PE per hour
d.	OAC rule 3745-18-06(C)	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour
		6.24 pounds of CO per hour

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1) and OAC rule 3745-17-07(A)(1).

b. This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 pounds per hour and burns natural gas only.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(2) The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(3) The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(4) The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(5) The average hourly total glass production rate for emissions units P127 through P132, combined, shall not exceed the value (pounds per hour) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in f)(2), at the higher average hourly glass pull rate.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P127 through P132;

b. the total hours of operation for emissions units P127 through P132; and

c. the average hourly glass production rate (a/b).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 location and 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 emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) Notwithstanding the frequency of reporting requirements specified in the previous term and condition, the permittee may reduce the frequency of visual observations from weekly to once every two weeks for this emissions unit if the following conditions are met:

a. for one full quarter the facility's visual observations indicate no visible emissions; and

b. thepermittee continues to comply with all the record keeping and monitoring requirements specified in d)(6).

The permittee shall revert to weekly observations if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Toledo Division of Environmental Services (TES) in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of

such record and shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal within 30 days after the incident occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in c)(3).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in c)(4):

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) hepermittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in c)(5).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) Deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(8) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the allowable emission limitations in this permit shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

0.551 pound of PE per year

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 1 through 5 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

2.41 tons of PE per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

0.551 pound of PM_{10} per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 201 and 202 of 40 CFR Part 51 Appendix M, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

2.41 tons of PM_{10} per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hour emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

6.24 pounds of CO per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

0.21 pound of NO_x per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

i. Emission Limitation:

0.92 ton of NO_x per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

j. Emission Limitation:

0.20 pound of VOC per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-21-10, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

k. Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

l. Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 6 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of d)(1) and e)(1), respectively.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the PM_{10} and CO emission limitations.

c. The permittee shall test stack 61 which serves Osprey 29 (control for P127 through P132) and Osprey 30 (control for P133 through P138). Compliance for each emissions unit shall be determined using an average emission factor (pounds per ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 201 and 202 of 40 CFR Part 51, Appendix M; for CO Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the TES.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

8. Emissions Unit Group -Microstand Sources 30A-30F: P133, P134, P135, P136, P137, P138.

EU ID	Operations, Property and/or Equipment Description
P133	This process operates by melting glass using natural gas to make glass fibers
P134	This process operates by melting glass using natural gas to make glass fibers
P135	This process operates by melting glass using natural gas to make glass fibers
P136	This process operates by melting glass using natural gas to make glass fibers
P137	This process operates by melting glass using natural gas to make glass fibers
P138	This process operates by melting glass using natural gas to make glass fibers

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (P0107265 issued 2/14/2011)	27.33 tons of carbon monoxide (CO) per rolling, 12-month period
		0.21 pound of nitrogen oxides (NO_x) per hour 0.92 ton of NO_x per rolling, 12-month period
		2.41 tons of particulate emissions (PE) per rolling, 12-month period
		2.41 tons of particulate matter less than or equal to 10 microns in diameter (PM_{10}) per rolling, 12-month period
		0.20 pound of volatile organic compounds (VOC) per hour 0.88 ton of VOC per rolling, 12-month period
		sulfur dioxide (SO_2) - negligible
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

c.	OAC rule 3745-17-11(B)(1)	0.551 pound of PE per hour
d.	OAC rule 3745-18-06(C)	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour
		6.24 pounds of CO per hour

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1) and OAC rule 3745-17-07(A)(1).

b. This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 pounds per hour and burns natural gas only.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(2) The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(3) The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(4) The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(5) The average hourly total glass production rate for emissions units P133 through P138, combined, shall not exceed the value (pounds per hour) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in f)(2), at the higher average hourly glass pull rate.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P133 through P138;

b. the total hours of operation for emissions units P133 through P138; and

c. the average hourly glass production rate (a/b).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 location and 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 emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) Notwithstanding the frequency of reporting requirements specified in the previous term and condition, the permittee may reduce the frequency of visual observations from weekly to once every two weeks for this emissions unit if the following conditions are met:

a. for one full quarter the facility's visual observations indicate no visible emissions; and

b. thepermittee continues to comply with all the record keeping and monitoring requirements specified in d)(6).

The permittee shall revert to weekly observations if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Toledo Division of Environmental Services (TES) in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of

such record and shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal within 30 days after the incident occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in c)(3).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in c)(4):

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in c)(5).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the TES by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) Deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(8) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

0.551 pound of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

2.41 tons of PE per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

0.551 pound of PM_{10} per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 201 and 202 of 40 CFR Part 51 Appendix M, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

e. Emission Limitation:

2.41 tons of PM_{10} per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

f. Emission Limitation:

6.24 pounds of CO per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

0.21 pound of NO_x per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

i. Emission Limitation:

0.92 ton of NO_x per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

j. Emission Limitation:

0.20 pound of VOC per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-21-10, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

k. Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

l. Emission Limitation:

SO_2 - negligible

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 6 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of d)(1) and e)(1), respectively.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the PM_{10} and CO emission limitations.

c. The permittee shall test stack 61 which serves Osprey 29 (control for P127 through P132) and Osprey 30 (control for P133 through P138). Compliance for each emissions unit shall be determined using an average emission factor (pound per ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 201 and 202 of 40 CFR Part 51, Appendix M; for CO Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the TES.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

9. Emissions Unit Group -Microstand Sources 31A-31F: P139, P140, P141, P142, P143, P144.

EU ID	Operations, Property and/or Equipment Description
P139	This process operates by melting glass using natural gas to make glass fibers
P140	This process operates by melting glass using natural gas to make glass fibers
P141	This process operates by melting glass using natural gas to make glass fibers
P142	This process operates by melting glass using natural gas to make glass fibers
P143	This process operates by melting glass using natural gas to make glass fibers
P144	This process operates by melting glass using natural gas to make glass fibers

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (P0107265 issued 2/14/2011)	27.33 tons of carbon monoxide (CO) per rolling, 12-month period
		0.21 pound of nitrogen oxides (NO_x) per hour 0.92 ton of NO_x per rolling, 12-month period
		2.41 tons of particulate emissions (PE) per rolling, 12-month period
		2.41 tons of particulate matter less than or equal to 10 microns in diameter (PM_{10}) per rolling, 12-month period
		0.20 pound of volatile organic compounds (VOC) per hour 0.88 ton of VOC per rolling, 12-month period
		sulfur dioxide (SO_2) - negligible
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

c.	OAC rule 3745-17-11(B)(1)	0.551 pound of PE per hour
d.	OAC rule 3745-18-06(C)	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour
		3.24 pound of CO per hour

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1) and OAC rule 3745-17-07(A)(1).

b. This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 pounds per hour and burns natural gas only.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(2) The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(3) The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(4) The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(5) The average hourly total glass production rate for emissions units P139 through P144, combined, shall not exceed the value (pounds per hour) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in f)(2), at the higher average hourly glass pull rate.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P139 through P144;

b. the total hours of operation for emissions units P139 through P144; and

c. the average hourly glass production rate (a/b).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 location and 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 emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) Notwithstanding the frequency of reporting requirements specified in the previous term and condition, the permittee may reduce the frequency of visual observations from weekly to once every two weeks for this emissions unit if the following conditions are met:

a. for one full quarter the facility's visual observations indicate no visible emissions; and

b. thepermittee continues to comply with all the record keeping and monitoring requirements specified in d)(6).

The permittee shall revert to weekly observations if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Toledo Division of Environmental Services (TES) in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of

such record and shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal within 30 days after the incident occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in c)(3).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in c)(4):

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in c)(5).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the TES by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) Deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(8) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

0.551 pound of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 1 through 5 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

2.41 tons of PE per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

0.551 pound of PM_{10} per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 201 and 202 of 40 CFR Part 51 Appendix M, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

2.41 tons of PM_{10} per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

6.24 pounds of CO per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

0.21 pound of NO_x per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A, or other U. S. EPA approved test method, with prior approval from Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

i. Emission Limitation:

0.92 ton of NO_x per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

j. Emission Limitation:

0.20 pound of VOC per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-21-10, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

k. Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

l. Emission Limitation:

SO_2 - negligible

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 6 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved method, with prior approval from the Ohio EPA.

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of d)(1) and e)(1), respectively.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the PM_{10} and CO emission limitations.

c. The permittee shall test stack 62 which serves Osprey 31 (control for P139 through P144) and Osprey 32 (control for P145 through P150). Compliance for each emissions unit shall be determined using an average emission factor (pound per ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 201 and 202 of 40 CFR Part 51, Appendix M; for CO Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the TES.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

10. Emissions Unit Group -Microstand Sources 32A-32F: P145, P146, P147, P148, P149, P150.

EU ID	Operations, Property and/or Equipment Description
P145	This process operates by melting glass using natural gas to make glass fibers
P146	This process operates by melting glass using natural gas to make glass fibers
P147	This process operates by melting glass using natural gas to make glass fibers
P148	This process operates by melting glass using natural gas to make glass fibers
P149	This process operates by melting glass using natural gas to make glass fibers
P150	This process operates by melting glass using natural gas to make glass fibers

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (P0107265 issued 2/14/2011)	27.33 tons of carbon monoxide (CO) per rolling, 12-month period
		0.21 pound of nitrogen oxides (NO_x) per hour 0.92 ton of NO_x per rolling, 12-month period
		2.41 tons of particulate emissions (PE) per rolling, 12-month period
		2.41 tons of particulate matter less than or equal to 10 microns in diameter (PM_{10}) per rolling, 12-month period
		0.20 pound of volatile organic compounds (VOC) per hour 0.88 ton of VOC per rolling, 12-month period
		sulfur dioxide (SO_2) - negligible
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

c.	OAC rule 3745-17-11(B)(1)	0.551 pound of PE per hour
d.	OAC rule 3745-18-06(C)	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour
		6.24 pounds of CO per hour

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1) and OAC rule 3745-17-07(A)(1).

b. This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 pounds per hour and burns natural gas only.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(2) The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(3) The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(4) The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(5) The average hourly total glass production rate for emissions units P145 through P150, combined, shall not exceed the value (pounds per hour) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in f)(2), at the higher average hourly glass pull rate.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P145 through P150;

b. the total hours of operation for emissions units P145 through P150; and

c. the average hourly glass production rate (a/b).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 location and 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 emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) Notwithstanding the frequency of reporting requirements specified in the previous term and condition, the permittee may reduce the frequency of visual observations from weekly to once every two weeks for this emissions unit if the following conditions are met:

a. for one full quarter the facility's visual observations indicate no visible emissions; and

b. thepermittee continues to comply with all the record keeping and monitoring requirements specified in d)(6).

The permittee shall revert to weekly observations if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Toledo Division of Environmental Services (TES) in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of

such record and shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal within 30 days after the incident occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in c)(3).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in c)(4):

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in c)(5).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) Deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(8) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

0.551 pound of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 1 through 5 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

2.41 tons of PE per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

0.551 pound of PM_{10} per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 201 and 202 of 40 CFR Part 51 Appendix M, or other U.S. EPA approved test method,, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

2.41 tons of PM_{10} per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

6.24 pounds of CO per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

0.21 pound of NO_x per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

i. Emission Limitation:

0.92 ton of NO_x per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

j. Emission Limitation:

0.20 pound of VOC per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-21-10, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

k. Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

l. Emission Limitation:

SO_2 - negligible

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 6 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of d)(1) and e)(1), respectively.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the PM_{10} and CO emission limitations.

c. The permittee shall test stack 62 which serves Osprey 31 (control for P139 through P144) and Osprey 32 (control for P145 through P150). Compliance for each emissions unit shall be determined using an average emission factor (pounds per ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 201 and 202 of 40 CFR Part 51, Appendix M; for CO Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the TES.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

11. Emissions Unit Group -Microstand Sources 34A-34F: P157, P158, P159, P160, P161, P162.

EU ID	Operations, Property and/or Equipment Description
P157	This process operates by melting glass using natural gas to make glass fibers
P158	This process operates by melting glass using natural gas to make glass fibers
P159	This process operates by melting glass using natural gas to make glass fibers
P160	This process operates by melting glass using natural gas to make glass fibers
P161	This process operates by melting glass using natural gas to make glass fibers
P162	This process operates by melting glass using natural gas to make glass fibers

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (P0107265 issued 2/14/2011)	27.33 tons of carbon monoxide (CO) per rolling, 12-month period
		0.21 pound of nitrogen oxides (NO_x) per hour 0.92 ton of NO_x per rolling, 12-month period
		2.41 tons of particulate emissions (PE) per rolling, 12-month period
		2.41 tons of particulate matter less than or equal to 10 microns in diameter (PM_{10}) per rolling, 12-month period
		0.20 pound of volatile organic compounds (VOC) per hour 0.88 ton of VOC per rolling, 12-month period
		sulfur dioxide (SO_2) - negligible
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

c.	OAC rule 3745-17-11(B)(1)	0.551 pound of PE per hour
d.	OAC rule 3745-18-06(C)	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour
		6.24 pounds of CO per hour

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1) and OAC rule 3745-17-07(A)(1).

b. This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 pounds per hour and burns natural gas only.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(2) The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During the maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(3) The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emission control device.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(4) The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(5) The average hourly total glass production rate for emissions units P157 through P162, combined, shall not exceed the value (pounds per hour) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in f)(2), at the higher average hourly glass pull rate.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer’s recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation:

a. The pressure drop across the scrubber, in inches of water column; and

b. The scrubber water flow rate, in gallons per hour.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain daily records of the following information:

a. The number of hours the Osprey fabric filter was used as the primary control for the emissions unit;

b. The number of hours the wet scrubber was used as primary control for the emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P157 through P162;

b. the total hours of operation for emissions units P157 through P162; and

c. the average hourly glass production rate (a/b).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 location and 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 emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) Notwithstanding the frequency of reporting requirements specified in the previous term and condition, the permittee may reduce the frequency of visual observations from weekly to once every two weeks for this emissions unit if the following conditions are met:

a. for one full quarter the facility's visual observations indicate no visible emissions; and
b. thepermittee continues to comply with all the record keeping and monitoring requirements specified in d)(5).
c. The permittee shall revert to weekly observations if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Toledo Division of Environmental Services (TES) in writing of any daily record showing that neither the Osprey fabric filter nor the wet scrubber was not in service when the emissions unit was in operation. The notification shall include a

copy of such record and shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal within 30 days after the incident occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in c)(3).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in c)(4):

a. The pressure drop across the scrubber; and

b. The scrubber water flow rate.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in c)(5).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the TES by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) Deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(8) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

0.551 pound of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 1 through 5 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

2.41 tons of PE per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

0.551 pound of PM_{10} per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 201 and 202 of 40 CFR Part 51 Appendix M, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

2.41 tons of PM_{10} per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

6.24 pounds of CO per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

0.21 pound of NO_x per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

i. Emission Limitation:

0.92 ton of NO_x per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

j. Emission Limitation:

0.20 pound of VOC per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-21-10, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

k. Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

l. Emission Limitation:

SO_2 - negligible

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 6 of 40 CFR part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of d)(1) and e)(1), respectively.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the PM_{10} and CO emission limitations.

c. The permittee shall test stack 63 which serves Osprey 33 (control for P151 through P156) and Osprey 34 (control for P157 through P162). Compliance for each emissions unit shall be determined using an average emission factor (pounds per ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 201 and 202 of 40 CFR Part 51, Appendix M; for CO Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the TES.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

12. Emissions Unit Group -Microstand Sources 35A-35G: P163, P164, P165, P166, P167, P168, P169.

EU ID	Operations, Property and/or Equipment Description
P163	This process operates by melting glass using natural gas to make glass fibers
P164	This process operates by melting glass using natural gas to make glass fibers
P165	This process operates by melting glass using natural gas to make glass fibers
P166	This process operates by melting glass using natural gas to make glass fibers
P167	This process operates by melting glass using natural gas to make glass fibers
P168	This process operates by melting glass using natural gas to make glass fibers
P169	This process operates by melting glass using natural gas to make glass fibers

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (P0107265 issued 2/14/2011)	27.33 tons of carbon monoxide (CO) per rolling, 12-month period
		0.21 pound of nitrogen oxides (NO_x) per hour 0.92 ton of NO_x per rolling, 12-month period
		2.41 tons of particulate emissions (PE) per rolling, 12-month period
		2.41 tons of particulate matter less than or equal to 10 microns in diameter (PM_{10}) per rolling, 12-month period
		0.20 pound of volatile organic compounds (VOC) per hour 0.88 ton of VOC per rolling, 12-month period
		sulfur dioxide (SO_2) - negligible
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-11(B)(1)	0.551 pound of PE per hour
d.	OAC rule 3745-18-06(C)	See b)(2)b below.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour
		6.24 pounds of CO per hour

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1) and OAC rule 3745-17-07(A)(1).

b. This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 pounds per hour and burns natural gas only.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(2) The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(3) The average hourly total glass production rate for emissions units P163 through P169, combined, shall not exceed the value (pounds per hour) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in f)(2), at the higher average hourly glass pull rate.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The

permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P163 through P169;

b. the total hours of operation for emissions units P163 through P169; and

c. the average hourly glass production rate (a/b).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 location and 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 emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) Notwithstanding the frequency of reporting requirements specified in e), the permittee may reduce the frequency of visual observations from weekly to once every two weeks for this emissions unit if the following conditions are met:

a. for one full quarter the facility's visual observations indicate no visible emissions; and

b. thepermittee continues to comply with all the record keeping and monitoring requirements specified in d)(5).

The permittee shall revert to weekly observations if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Toledo Division of Environmental Services (TES) in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal within 30 days after the incident occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in c)(2).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in c)(3).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the TES by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) Deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

0.551 pound of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 1 through 5 of 40 CFR Part 60 Appendix A, using the methods and procedures specified in OAC rule 3745-17-03(B)(1), or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

2.41 tons of PE per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

0.551 pound of PM_{10} per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 201

and 202 of 40 CFR Part 51 Appendix M, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

2.41 tons of PM_{10} per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

6.24 pounds of CO per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

0.21 pound of NO_x per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 7 of 40 CFR Part

60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

i. Emission Limitation:

0.92 ton of NO_x per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

j. Emission Limitation:

0.20 pound of VOC per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A using the methods and procedures specified in AOC rule 3745-21-10, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

k. Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

l. Emission Limitation:

SO_2 - negligible

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1

through 4 and 6 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of d)(1) and e)(1), respectively.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the PM_{10} and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (pounds per ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 201 and 202 of 40 CFR Part 51, Appendix M; for CO Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the TES

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

13. Emissions Unit Group -Microstand Sources 36A-36G: P170, P171, P172, P173, P174, P175, P176.

EU ID	Operations, Property and/or Equipment Description
P170	This process operates by melting glass using natural gas to make glass fibers
P171	This process operates by melting glass using natural gas to make glass fibers
P172	This process operates by melting glass using natural gas to make glass fibers
P173	This process operates by melting glass using natural gas to make glass fibers
P174	This process operates by melting glass using natural gas to make glass fibers
P175	This process operates by melting glass using natural gas to make glass fibers
P176	This process operates by melting glass using natural gas to make glass fibers

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (P0107265 issued 2/14/2011)	27.33 tons of carbon monoxide (CO) per rolling, 12-month period
		0.21 pound of nitrogen oxides (NO_x) per hour 0.92 ton of NO_x per rolling, 12-month period
		2.41 tons of particulate emissions (PE) per rolling, 12-month period
		2.41 tons of particulate matter less than or equal to 10 microns in diameter (PM_{10}) per rolling, 12-month period
		0.20 pound of volatile organic compounds (VOC) per hour 0.88 ton of VOC per rolling, 12-month period
		sulfur dioxide (SO_2) - negligible
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-11(B)(1)	0.551 pound of PE per hour
d.	OAC rule 3745-18-06(C)	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM10 per hour
		6.24 pounds of CO per hour

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1) and OAC rule 3745-17-07(A)(1).

b. This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 pounds per hour and burns natural gas only.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(2) The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(3) The average hourly total glass production rate for emissions units P170 through P176, combined, shall not exceed the value (pounds per hour) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in f)(2), at the higher average hourly glass pull rate.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The

permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P170 through P176;

b. the total hours of operation for emissions units P170 through P176; and

c. the average hourly glass production rate (a/b).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 location and 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 emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) Notwithstanding the frequency of reporting requirements specified in the previous term and condition, the permittee may reduce the frequency of visual observations from weekly to once every two weeks for this emissions unit if the following conditions are met:

a. for one full quarter the facility's visual observations indicate no visible emissions; and

b. thepermittee continues to comply with all the record keeping and monitoring requirements specified in d)(5).

The permittee shall revert to weekly observations if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Toledo Division of Environmental Services (TES) in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal within 30 days after the incident occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in c)(2).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in c)(3).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) Deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

0.551 pound of PE per year

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 1 through 5 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

2.41 tons of PE per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

0.551 pound of PM_{10} per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 201 and 202 of 40 CFR Part 51 Appendix M, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

2.41 tons of PM_{10} per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

6.24 pounds of CO per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

0.21 pound of NO_x per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 7 of 40 CFR Part

60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

i. Emission Limitation:

0.92 ton of NO_x per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

j. Emission Limitation:

0.20 pound of VOC per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A using the methods and procedures specified in AOC rule 3745-21-10, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

k. Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

l. Emission Limitation:

SO_2 - negligible

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1

through 4 and 6 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of d)(1) and e)(1), respectively.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the PM_{10} and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (pounds per ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 201 and 202 of 40 CFR Part 51, Appendix M; for CO Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the TES.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

14. Emissions Unit Group -Microstand Sources 37A-37G: P177, P178, P179, P180, P181, P182, P183.

EU ID	Operations, Property and/or Equipment Description
P177	This process operates by melting glass using natural gas to make glass fibers
P178	This process operates by melting glass using natural gas to make glass fibers
P179	This process operates by melting glass using natural gas to make glass fibers
P180	This process operates by melting glass using natural gas to make glass fibers
P181	This process operates by melting glass using natural gas to make glass fibers
P182	This process operates by melting glass using natural gas to make glass fibers
P183	This process operates by melting glass using natural gas to make glass fibers

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (P0107265 dated)	27.33 tons of carbon monoxide (CO) per rolling, 12-month period
		0.21 pound of nitrogen oxides (NO_x) per hour 0.92 ton of NO_x per rolling, 12-month period
		2.41 tons of particulate emissions (PE) per rolling, 12-month period
		2.41 tons of particulate matter of less than or equal to 10 microns in diameter (PM_{10}) per rolling, 12-month period
		0.20 pound of volatile organic compounds (VOC) per hour 0.88 ton of VOC per rolling, 12-month period
		sulfur dioxide (SO_2) - negligible
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-11(B)(1)	0.551 pound of PE per hour
d.	OAC rule 3745-18-06(C)	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour
		6.24 pounds of CO per hour

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1) and OAC rule 3745-17-07(A)(1).

b. This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 pounds per hour and burns natural gas only.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(2) The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(3) The average hourly total glass production rate for emissions units P177 through P183, combined, shall not exceed the value (pounds per hour) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in f)(2), at the higher average hourly glass pull rate.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The

permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P177 through P183;

b. the total hours of operation for emissions units P177 through P183; and

c. the average hourly glass production rate (a/b).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 location and 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 emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) Notwithstanding the frequency of reporting requirements specified in e), the permittee may reduce the frequency of visual observations from weekly to once every two weeks for this emissions unit if the following conditions are met:

a. for one full quarter the facility's visual observations indicate no visible emissions; and

b. thepermittee continues to comply with all the record keeping and monitoring requirements specified in d)(5).

The permittee shall revert to weekly observations if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Toledo Division of Environmental Services (TES) in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal within 30 days after the incident occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in c)(2).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in c)(3).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) Deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

0.551 pound of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing in accordance with Methods 1 though 5 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

2.41 tons of PE per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

0.551 pound of PM_{10} per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 201

and 202 of 40 CFR Part 51 Appendix M, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

2.41 tons of PM_{10} per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

6.24 pounds of CO per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

0.21 pound of NO_x per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 7 of 40 CFR Part

60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

i. Emission Limitation:

0.92 ton of NO_x per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

j. Emission Limitation:

0.20 pound of VOC per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-21-10, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

k. Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

l. Emission Limitation:

SO_2 - negligible

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1

through 4 and 6 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of d)(1) and e)(1), respectively.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the PM_{10} and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (pounds per ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 201 and 202 of 40 CFR Part 51, Appendix M; for CO Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the TES.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

15. Emissions Unit Group -Microstand Sources 38A-38G: P184, P185, P186, P187, P188, P189, P190.

EU ID	Operations, Property and/or Equipment Description
P184	This process operates by melting glass using natural gas to make glass fibers
P185	This process operates by melting glass using natural gas to make glass fibers
P186	This process operates by melting glass using natural gas to make glass fibers
P187	This process operates by melting glass using natural gas to make glass fibers
P188	This process operates by melting glass using natural gas to make glass fibers
P189	This process operates by melting glass using natural gas to make glass fibers
P190	This process operates by melting glass using natural gas to make glass fibers

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (P0107265 issued 2/14/2011)	27.33 tons of carbon monoxide (CO) per rolling, 12-month period
		0.21 pound of nitrogen oxides (NO_x) per hour 0.92 ton of NO_x per rolling, 12-month period
		2.41 tons of particulate emissions (PE) per rolling, 12-month period
		2.41 tons of particulate matter less than or equal to 10 microns in diameter (PM_{10}) per rolling, 12-month period
		0.20 pound of volatile organic compounds (VOC) per hour 0.88 ton of VOC per rolling, 12-month period
		sulfur dioxide (SO_2) - negligible
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-11(B)(1)	0.551 pound of PE per hour
d.	OAC rule 3745-18-06(C)	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour
		6.24 pound of CO per year

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1) and OAC rule 3745-17-07(A)(1).

b. This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 pounds per hour and burns natural gas only.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(2) The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(3) The average hourly total glass production rate for emissions units P184 through P190, combined, shall not exceed the value (pounds per hour) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in f)(2), at the higher average hourly glass pull rate.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The

permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P184 through P190;

b. the total hours of operation for emissions units P184 through P190; and

c. the average hourly glass production rate (a/b).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 location and 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 emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) Notwithstanding the frequency of reporting requirements specified in the previous term and condition, the permittee may reduce the frequency of visual observations from weekly to once every two weeks for this emissions unit if the following conditions are met:

a. for one full quarter the facility's visual observations indicate no visible emissions; and

b. thepermittee continues to comply with all the record keeping and monitoring requirements specified in d)(5).

The permittee shall revert to weekly observations if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Toledo Division of Environmental Services (TES) in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal within 30 days after the incident occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in d)(2).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in d)(3).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) Deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

0.551 pound of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval fromm the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

2.41 tons of PE per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

0.551 pound of PM_{10} per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 201 and 202 of 40 CFR Part 51 Appendix M, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

2.41 tons of PM_{10} per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

6.24 pounds of CO per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

0.21 pound of NO_x per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

i. Emission Limitation:

0.92 ton of NO_x per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

j. Emission Limitation:

0.20 pound of VOC per hour

Applicable Compliance Method:

f required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A, using the methods and procedures specified in OAC rule 3745-21-10, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

k. Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

l. Emission Limitation:

SO_2 - negligible

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 6 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of d)(1) and e)(1), respectively.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the PM_{10} and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (pounds per ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 201 and 202 of 40 CFR Part 51, Appendix M; for CO Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the TES.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

16. Emissions Unit Group -Microstand Sources 39A-39G: P191, P192, P193, P194, P195, P196, P197.

EU ID	Operations, Property and/or Equipment Description
P191	This process operates by melting glass using natural gas to make glass fibers
P192	This process operates by melting glass using natural gas to make glass fibers
P193	This process operates by melting glass using natural gas to make glass fibers
P194	This process operates by melting glass using natural gas to make glass fibers
P195	This process operates by melting glass using natural gas to make glass fibers
P196	This process operates by melting glass using natural gas to make glass fibers
P197	This process operates by melting glass using natural gas to make glass fibers

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (P0107265 issued 2/14/2011)	27.33 tons of carbon monoxide (CO) per rolling, 12-month period
		0.21 pound of nitrogen oxides (NO_x) per hour 0.92 ton of NO_x per rolling, 12-month period
		2.41 tons of particulate emissions (PE) per rolling, 12-month period
		2.41 tons of particulate matter less than or equal to 10 microns in diameter (PM_{10}) per rolling, 12-month period
		0.20 pound of volatile organic compounds (VOC) per hour 0.88 ton of VOC per rolling, 12-month period
		sulfur dioxide (SO_2) - negligible
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-11(B)(1)	0.551 pound of PE per hour
d.	OAC rule 3745-18-06(C)	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour
		6.24 pounds of CO per hour

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1) and OAC rule 3745-17-07(A)(1).

b. This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 pounds per hour and burns natural gas only.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(2) The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(3) The average hourly total glass production rate for emissions units P191 through P197, combined, shall not exceed the value (pounds per hour) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in f)(2), at the higher average hourly glass pull rate.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The

permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P191 through P197;

b. the total hours of operation for emissions units P191 through P197; and

c. the average hourly glass production rate (a/b).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 location and 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 emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) Notwithstanding the frequency of reporting requirements specified in the previous term and condition, the permittee may reduce the frequency of visual observations from weekly to once every two weeks for this emissions unit if the following conditions are met:

a. for one full quarter the facility's visual observations indicate no visible emissions; and

b. thepermittee continues to comply with all the record keeping and monitoring requirements specified in d)(5).

The permittee shall revert to weekly observations if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Toledo Division of Environmental Services (TES) in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal within 30 days after the incident occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in c)(2).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in c)(3).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) Deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).\

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

0.551 pound of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

2.41 tons of PE per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

0.551 pounds of PM_{10} per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 201 and 202 of 40 CFR Part 51 Appendix M, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

2.41 tons of PM_{10} per rolling, 12-month period

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

6.24 pounds of CO per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

0.21 pound of NO_x per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

i. Emission Limitation:

0.92 ton of NO_x per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

j. Emission Limitation:

0.20 pound of VOC per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A, using the methods and procedures specified in OAC rule 3745-21-10, or other U.S.EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

k. Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

l. Emission Limitation:

SO_2 - negligible

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 6 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of d)(1) and e)(1), respectively.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the PM_{10} and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (pounds per ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 201 and 202 of 40 CFR Part 51 Appendix M; for CO Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the TES.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

17. Emissions Unit Group -Microstand Sources 40A-40G: P198, P199, P200, P201, P202, P203, P204.

EU ID	Operations, Property and/or Equipment Description
P198	This process operates by melting glass using natural gas to make glass fibers
P199	This process operates by melting glass using natural gas to make glass fibers
P200	This process operates by melting glass using natural gas to make glass fibers
P201	This process operates by melting glass using natural gas to make glass fibers
P202	This process operates by melting glass using natural gas to make glass fibers
P203	This process operates by melting glass using natural gas to make glass fibers
P204	This process operates by melting glass using natural gas to make glass fibers

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (P0107265 issued 2/14/2011)	27.33 tons of carbon monoxide (CO) per rolling, 12-month period
		0.21 pound of nitrogen oxides (NO_x) per hour 0.92 ton of NO_x per rolling, 12-month period
		2.41 tons of particulate emissions (PE) per rolling, 12-month period
		2.41 tons of particulate matter less than or equal to 10 microns in diameter (PM_{10}) per rolling, 12-month period
		0.20 pound of volatile organic compounds (VOC) per hour 0.88 ton of VOC per rolling, 12-month period
		sulfur dioxide (SO_2) - negligible
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-11(B)(1)	0.551 pound of PE per hour
d.	OAC rule 3745-18-06(C)	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour
		6.24 pounds of CO per hour

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1) and OAC rule 3745-17-07(A)(1).

b. This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 pounds per hour and burns natural gas only.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(2) The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

(3) The average hourly total glass production rate for emissions units P198 through P204, combined, shall not exceed the value (pounds per hour) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in f)(2), at the higher average hourly glass pull rate.

[Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The

permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P198 through P204;

b. the total hours of operation for emissions units P198 through P204; and

c. the average hourly glass production rate (a/b).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 location and 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 emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) Notwithstanding the frequency of reporting requirements specified in e), the permittee may reduce the frequency of visual observations from weekly to once every two weeks for this emissions unit if the following conditions are met:

a. for one full quarter the facility's visual observations indicate no visible emissions; and

b. thepermittee continues to comply with all the record keeping and monitoring requirements specified in d)(5).

The permittee shall revert to weekly observations if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Toledo Division of Environmental Services (TES) in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal within 30 days after the incident occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in c)(2).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in c)(3).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) Deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) 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 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

0.551 pound of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

2.41 tons of PE per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

0.551 pound of PM_{10} per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 201

and 202 of 40 CFR Part 51 Appendix M, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

2.41 tons of PM_{10} per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

6.24 pounds of CO per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A, or other U. S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 pounds per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

0.21 pound of NO_x per hour

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Methods 1 through 4 and 7 of 40 CFR Part

60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

i. Emission Limitation:

0.92 ton of NO_x per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

j. Emission Limitation:

0.20 pound of VOC per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 25 of 40 CFR Part 60 Appendix A, using the methods and procedures specified in OAC rule 3745-21-10, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

k. Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 pound per hour by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

l. Emission Limitation:

SO_2 - negligible

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing performed in accordance with Methods 1

through 4 and 6 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of d)(1) and e)(1), respectively.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the PM_{10} and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (pounds per ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 201 and 202 of 40 CFR Part 51 Appendix M; for CO Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the TES.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES' refusal to accept the results of the emission test(s).

Personnel from the TES 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.

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 TES 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 TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.