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

2/14/2011

Certified Mail

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

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

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0448000013
Permit Number: P0107265
Permit Type: Administrative Modification
County: Lucas

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of $70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Toledo Department of Environmental Services. 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.

Sincerely,

Michael W. Ahern

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

Cc: U.S. EPA
TDES; Michigan; Indiana; Canada

Response to Comments

Response to comments for: Permit-To-Install

Facility ID:	0448000013
Facility Name:	Johns Manville - Waterville 07
Facility Description:	Fiberglass Manufacturer
Facility Address:	7500 Dutch Road Waterville, OH 43566 Lucas County
Permit #:	P0107265, Administrative Modification
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the Toledo Blade on 01/14/2011. The comment period ended on 02/13/2011.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: **No comments received.**
    a. Comment: **None**
    b. Response: **None**

Ohio | Environmental Protection Agency

FINAL

Division of Air Pollution Control
Permit-to-Install
for
Johns Manville - Waterville 07

Facility ID:	0448000013
Permit Number:	P0107265
Permit Type:	Administrative Modification
Issued:	2/14/2011
Effective:	2/14/2011

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install
for
Johns Manville - Waterville 07

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Authorization

Facility ID: 0448000013
Facility Description:
Application Number(s): M0001056
Permit Number: P0107265
Permit Description: Establishes changes in particulate limits originally intended in PTI 04-982 effective 7/22/1998. Due to a clerical error, not all the emission units were changes as intended.
Permit Type: Administrative Modification
Permit Fee: $0.00
Issue Date: 2/14/2011
Effective Date: 2/14/2011

This document constitutes issuance to:

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

of a Permit-to-Install for the emissions unit(s) identified on the following page.

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 Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director

Authorization (continued)

Permit Number: P0107265
Permit Description: Establishes changes in particulate limits originally intended in PTI 04-982 effective 7/22/1998. Due to a clerical error, not all the emission units were changes as intended.

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

Group Name: 300 X Lines 3 & 4

Emissions Unit ID:	**P239**
Company Equipment ID:	300X LINE 3
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P240**
Company Equipment ID:	300X LINE 4
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 29A - 29F

Emissions Unit ID:	**P127**
Company Equipment ID:	Microstrand Source 29A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P128**
Company Equipment ID:	Microstrand Source 29B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P129**
Company Equipment ID:	Microstrand Source 29C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P130**
Company Equipment ID:	Microstrand Source 29D
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P131**
Company Equipment ID:	Microstrand Source 29E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P132**
Company Equipment ID:	Microstrand Source 29F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 30A - 30F

Emissions Unit ID:	**P133**
Company Equipment ID:	Microstrand Source 30A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
	P134

Emissions Unit ID:	
Company Equipment ID:	Microstrand Source 30B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P135**
Company Equipment ID:	Microstrand Source 30C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P136**
Company Equipment ID:	Microstrand Source 30D
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P137**
Company Equipment ID:	Microstrand Source 30E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P138**
Company Equipment ID:	Microstrand Source 30F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 31A - 31 F

Emissions Unit ID:	**P139**
Company Equipment ID:	Microstrand Source 31A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P140**
Company Equipment ID:	Microstrand Source 31B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P141**
Company Equipment ID:	Microstrand Source 31C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P142**
Company Equipment ID:	Microstrand Source 31D
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P143**
Company Equipment ID:	Microstrand Source 31E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P144**
Company Equipment ID:	Microstrand Source 31F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 32A - 32F

Emissions Unit ID:	**P145**
Company Equipment ID:	Microstrand Source 32A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P146**
Company Equipment ID:	Microstrand Source 32B

Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P147**
Company Equipment ID:	Microstrand Source 32C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P148**
Company Equipment ID:	Microstrand Source 32D
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P149**
Company Equipment ID:	Microstrand Source 32E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P150**
Company Equipment ID:	Microstrand Source 32F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 33A - 33F

Emissions Unit ID:	**P151**
Company Equipment ID:	Microstrand Source 33A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P152**
Company Equipment ID:	Microstrand Source 33B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P153**
Company Equipment ID:	Microstrand Source 33C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P154**
Company Equipment ID:	Microstrand Source 33D
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P155**
Company Equipment ID:	Microstrand Source 33E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P156**
Company Equipment ID:	Microstrand Source 33F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 34A - 34F

Emissions Unit ID:	**P157**
Company Equipment ID:	Microstrand Source 34A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P158**
Company Equipment ID:	Microstrand Source 34B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

	P159
Emissions Unit ID:	
Company Equipment ID:	Microstrand Source 34C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P160**
Company Equipment ID:	Microstrand Source 34D
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P161**
Company Equipment ID:	Microstrand Source 34E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P162**
Company Equipment ID:	Microstrand Source 34F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 35A - 35G

Emissions Unit ID:	**P163**
Company Equipment ID:	Microstrand Source 35A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P164**
Company Equipment ID:	Microstrand Source 35B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P165**
Company Equipment ID:	Microstrand Source 35C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P166**
Company Equipment ID:	Microstrand Source 35D
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P167**
Company Equipment ID:	Microstrand Source 35E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P168**
Company Equipment ID:	Microstrand Source 35F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 36A - 36G

Emissions Unit ID:	**P170**
Company Equipment ID:	Microstrand Source 36A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P171**
Company Equipment ID:	Microstrand Source 36B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P172**

Company Equipment ID:	Microstrand Source 36C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P173**
Company Equipment ID:	Microstrand Source 36D
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P174**
Company Equipment ID:	Microstrand Source 36E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P175**
Company Equipment ID:	Microstrand Source 36F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P176**
Company Equipment ID:	Microstrand Source 36G
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 37A - 37G

Emissions Unit ID:	**P177**
Company Equipment ID:	Microstrand Source 37A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P178**
Company Equipment ID:	Microstrand Source 37B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P179**
Company Equipment ID:	Microstrand Source 37C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P180**
Company Equipment ID:	Microstrand Source 37D
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P181**
Company Equipment ID:	Microstrand Source 37E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P182**
Company Equipment ID:	Microstrand Source 37F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P183**
Company Equipment ID:	Microstrand Source 37G
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 38A - 38G

Emissions Unit ID:	**P184**
Company Equipment ID:	Microstrand Source 38A
Superseded Permit Number:	04-982

General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P185**
Company Equipment ID:	Microstrand Source 38B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P186**
Company Equipment ID:	Microstrand Source 38C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P187**
Company Equipment ID:	Microstrand Source 38D
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P188**
Company Equipment ID:	Microstrand Source 38E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P189**
Company Equipment ID:	Microstrand Source 38F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P190**
Company Equipment ID:	Microstrand Source 38G
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 39A - 39G

Emissions Unit ID:	**P191**
Company Equipment ID:	Microstrand Source 39A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P192**
Company Equipment ID:	Microstrand Source 39B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P193**
Company Equipment ID:	Microstrand Source 39C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P194**
Company Equipment ID:	Microstrand Source 39D
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P195**
Company Equipment ID:	Microstrand Source 39E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P196**
Company Equipment ID:	Microstrand Source 39F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P197**
Company Equipment ID:	Microstrand Source 39G
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 40A - 40G

Emissions Unit ID:	**P198**
Company Equipment ID:	Microstrand Source 40A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P199**
Company Equipment ID:	Microstrand Source 40B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P200**
Company Equipment ID:	Microstrand Source 40C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P201**
Company Equipment ID:	Microstrand Source 40D
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P202**
Company Equipment ID:	Microstrand Source 40E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P203**
Company Equipment ID:	Microstrand Source 40F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P204**
Company Equipment ID:	Microstrand Source 40G
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 41A - 41G

Emissions Unit ID:	**P205**
Company Equipment ID:	Microstand Source 41A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P206**
Company Equipment ID:	Microstand Source 41B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P207**
Company Equipment ID:	Microstand Source 41C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P208**
Company Equipment ID:	Microstand Source 41D
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P209**
Company Equipment ID:	Microstand Source 41E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
	P210

Emissions Unit ID:	
Company Equipment ID:	Microstand Source 41F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P211**
Company Equipment ID:	Microstand Source 41G
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 42A - 42G

Emissions Unit ID:	**P212**
Company Equipment ID:	Microstand Source 42A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P213**
Company Equipment ID:	Microstand Source 42B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P214**
Company Equipment ID:	Microstand Source 42C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P215**
Company Equipment ID:	Microstand Source 42D
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P216**
Company Equipment ID:	Microstand Source 42E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P217**
Company Equipment ID:	Microstand Source 42F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P218**
Company Equipment ID:	Microstand Source 42G
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 43A - 43G

Emissions Unit ID:	**P219**
Company Equipment ID:	Microstand Source 43A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P220**
Company Equipment ID:	Microstand Source 43B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P221**
Company Equipment ID:	Microstand Source 43C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P222**
Company Equipment ID:	Microstand Source 43D

Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P223**
Company Equipment ID:	Microstand Source 43E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P224**
Company Equipment ID:	Microstand Source 43F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P225**
Company Equipment ID:	Microstand Source 43G
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 44A - 44G

Emissions Unit ID:	**P226**
Company Equipment ID:	Microstand Source 44A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P227**
Company Equipment ID:	Microstand Source 44B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P228**
Company Equipment ID:	Microstand Source 44C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P230**
Company Equipment ID:	Microstand Source 44E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P231**
Company Equipment ID:	Microstand Source 44F
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P232**
Company Equipment ID:	Microstand Source 44G
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Group Name: Microstand Sources 45A - 45F

Emissions Unit ID:	**P233**
Company Equipment ID:	Microstand Source 45A
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P234**
Company Equipment ID:	Microstand Source 45B
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P235**
Company Equipment ID:	Microstand Source 45C
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

Emissions Unit ID:	**P236**
Company Equipment ID:	Microstand Source 45D
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P237**
Company Equipment ID:	Microstand Source 45E
Superseded Permit Number:	04-982
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A.2.a), Severability Clause

(2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements

(3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements

(4) Standard Term and Condition A.9., Reporting Requirements

(5) Standard Term and Condition A.10., Applicability

(6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install

(7) Standard Term and Condition A.14., Public Disclosure

(8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(9) Standard Term and Condition A.16., Fees

(10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

a) 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 re-issuance, or modification.

b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d) This permit does not convey any property rights of any sort, or any exclusive privilege.

e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Toledo Department of Environmental Services.

(2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations,

excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Toledo Department of Environmental Services. The written 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. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Toledo Department of Environmental Services every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

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

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

6. Compliance Requirements

a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

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

c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

(1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

(3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

d) The permittee shall submit progress reports to the Toledo Department of Environmental Services concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

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

8. Air Pollution Nuisance

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

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Toledo Department of Environmental Services.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Toledo Department of

Environmental Services. 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.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

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

a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as “permanently shut down” in Ohio EPA’s “Air Services” along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate

without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

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

12. Permit-To-Operate Application

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

13. Construction Compliance Certification

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

a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.

b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

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

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

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

16. Fees

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

17. Permit Transfers

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

18. Risk Management Plans

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

19. Title IV Provisions

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

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.

C. Emissions Unit Terms and Conditions

1. Emissions Unit Group - 300 X 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 operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-982, as modified 7/22/1998)	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.

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

(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.

(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.

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

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.

(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.

(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.

(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.

(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.

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.

(2) The permittee shall notify the Toledo Department of Environmental Services (TDOES) 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 sent to the TDOES within 30 days after the incident occurs.

(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.

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

(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.

(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.

(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.

f) Testing Requirements

(1) Compliance with the emission limitations in section 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).

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.

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.

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 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:

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.

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.

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.

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.

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.

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.

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.

l. Emission Limitation:

SO2 - negligible

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 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 sections d)(1) and e)(1), respectively.

(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 when required by the Director (the appropriate District Office or local air agency).

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 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 TDOES.

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

Personnel from the TDOES 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 TDOES 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 TDOES.

g) Miscellaneous Requirements

(1) None.

2. 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

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-982, as modified 7/22/1998)	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	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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 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.

(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.

(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.

(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.

(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.

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.

(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.

(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.

(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.

(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).

(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.

(7) Notwithstanding the frequency of reporting requirements specified in the previous section, 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. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(6).

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

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.

(2) The permittee shall notify the Toledo Division of Environmental Services (TDOES) in writing of any daily record showing that neither the Osprey fabric filter nor wet scrubber was in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs. tommarow

(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 section c)(3).

(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 section c)(4):

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

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

(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 TDOES by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

(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.

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).

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)(10), or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

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.

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.

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.

h. Emission Limitation:

0.21 pound of NO_x 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 7 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

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.

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.

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.

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 sections d)(1) and e)(1), respectively.

(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 when required by the Toledo Division of Environmental Services or Ohio EPA Central Office.

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 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 TDOES.

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. 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 TDOES.

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 TDOES. 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 TDOES' refusal to accept the results of the emission test(s).

Personnel from the TDOES 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 TDOES 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 TDOES.

g) Miscellaneous Requirements

(1) None.

3. 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 operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-982, as modified 7/22/1998)	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	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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 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.

(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.

(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.

(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.

(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.

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.

(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.

(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.

(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 the primary control for this emissions unit; and

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

(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).

(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.

(7) Notwithstanding the frequency of reporting requirements specified in the previous section, 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. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(6).

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

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.

(2) The permittee shall notify the Toledo Division of Environmental Services (TDOES) in writing of any daily record showing that neither the Osprey fabric filter nor wet scrubber was in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

(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 section c)(3).

(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 section c)(4):

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

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

(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 TDOES by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

(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.

f) Testing Requirements

(1) Compliance with the emission limitations in section 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).

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 thorough 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.

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.

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.

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.

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.

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.

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 though 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.

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.

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 sections d)(1) land e)(1), respectively.

(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 when required by the Toledo Division of Environmental Services or Ohio EPA Central Office.

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 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 TDOES.

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 TDOES.

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 TDOES. 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 TDOES' refusal to accept the results of the emission test(s).

Personnel from the TDOES 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 TDOES 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 TDOES.

g) Miscellaneous Requirements

(1) None.

4. Emissions Unit Group - Microstand Sources 31A - 31 F: 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 operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-982, as modified 7/22/1998)	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
		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	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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 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.

(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.

(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.

(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.

(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.

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.

(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.

(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.

(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.

(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).

(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.

(7) Notwithstanding the frequency of reporting requirements specified in the previous section, 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. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(6).

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

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.

(2) The permittee shall notify the Toledo Division of Environmental Services (TDOES) in writing of any daily record showing that neither the Osprey fabric filter nor wet scrubber was in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

(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 section c)(3).

(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 section c)(4):

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

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

(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 TDOES by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

(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.

f) Testing Requirements

(1) Compliance with the emission limitations in section 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).

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)(10), or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

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.

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.

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.

h. Emission Limitation:

0.21 pound of NO_x 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 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

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.

j. Emission Limitation:

0.20 pound of VOC per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the 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.

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.

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 sections d)(1) and e)(1), respectively.

(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 when required by the Toledo Division of Environmental Services or Ohio EPA Central Office.

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 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 (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. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the TDOES.

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 TDOES.

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 TDOES. 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 TDOES' refusal to accept the results of the emission test(s).

Personnel from the TDOES 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 TDOES 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 TDOES.

g) Miscellaneous Requirements

(1) None.

5. 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 operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-982, as modified 7/22/1998)	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	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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 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.

(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.

(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.

(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.

(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.

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.

(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.

(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.

(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.

(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).

(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.

(7) Notwithstanding the frequency of reporting requirements specified in the previous section, 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. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(6).

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

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.

(2) The permittee shall notify the Toledo Division of Environmental Services (TDOES) in writing of any daily record showing that neither the Osprey fabric filter nor wet scrubber was in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

(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 section c)(3).

(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 section c)(4):

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

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

(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 TDOES by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

(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.

f) Testing Requirements

(1) Compliance with the emission limitations in section 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).

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)(10), or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

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.

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.

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.

h. Emission Limitation:

0.21 pound of NO_x 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 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

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.

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.

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.

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 sections d)(1) and e(1), respectively.

(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 when required by the Toledo Division of Environmental Services or Ohio EPA Central Office.

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 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 TDOES.

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 TDOES.

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 TDOES. 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 TDOES' refusal to accept the results of the emission test(s).

Personnel from the TDOES 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 TDOES 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 TDOES.

g) Miscellaneous Requirements

(1) None.

6. 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 operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-982, as modified 7/22/1998)	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	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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 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.

(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.

(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.

(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.

(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.

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.

(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.

(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.

(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 the primary control for this emissions unit; and

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

(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).

(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.

(7) Notwithstanding the frequency of reporting requirements specified in the previous section, 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. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(6).

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

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.

(2) The permittee shall notify the Toledo Division of Environmental Services (TDOES) in writing of any daily record showing that neither the Osprey fabric filter nor wet scrubber was in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

(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 section c)(3).

(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 section c)(4):

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

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

(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 TDOES by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

(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.

f) Testing Requirements

(1) Compliance with the emission limitations in section 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).

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 Meethods 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.

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.

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.

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.

h. Emission Limitation:

0.21 pound of NO_x 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 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

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.

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.

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.

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 sections d)(1) and e(1), respectively.

(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 when required by the Toledo Division of Environmental Services or Ohio EPA Central Office.

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 TDOES.

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 TDOES.

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 TDOES. 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 TDOES' refusal to accept the results of the emission test(s).

Personnel from the TDOES 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 TDOES 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 TDOES.

g) Miscellaneous Requirements

(1) None.

7. 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 operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-982, as modified 7/22/1998)	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	See b)(2)b.
e.	OAC rule 3745-31-10 through 20	0.551 pound of PM_{10} per hour

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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 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.

(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.

(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.

(4) The pressure drop across the web 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.

(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.

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.

(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.

(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.

(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 the emissions unit;

b. The number of hours the web 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.

(5) 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).

(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.

(7) Notwithstanding the frequency of reporting requirements specified in the previous section, 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. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(5);

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

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.

(2) The permittee shall notify the Toledo Division of Environmental Services (TDOES) in writing of any daily record showing that neither the Osprey fabric filter nor wet scrubber was in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

(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 section c)(3).

(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 section c)(4):

a. The pressure drop across the scrubber; and

b. The scrubber water flow rate.

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

(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 TDOES by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

(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.

f) Testing Requirements

(1) Compliance with the emission limitations in section 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).

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)(10), or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

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.

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.

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.

h. Emission Limitation:

0.21 pound of NO_x 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 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

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.

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.

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.

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 sections d)(1) and e)(1), respectively.

(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 when required by the Toledo Division of Envrionmental Services or Ohio EPA Central Office.

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 TDOES.

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 TDOES. 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 TDOES' refusal to accept the results of the emission test(s).

Personnel from the TDOES 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 TDOES 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 TDOES.

g) Miscellaneous Requirements

(1) None.

8. 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 operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-982, as modified 7/22/1998)	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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-18-06	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 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.

(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.

(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.

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.

(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.

(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.

(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).

(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.

(6) Notwithstanding the frequency of reporting requirements specified in the previous section, 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. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(5).

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

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.

(2) The permittee shall notify the Toledo Division of Environmental Services (TDOES) 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 sent to the TDOES within 30 days after the incident occurs.

(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 section c)(2).

(4) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section c)(3).

(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 TDOES by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

(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.

f) Testing Requirements

(1) Compliance with the emission limitations in section 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).

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.

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.

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.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.

g. Emission Limitation:

0.21 pound of NO_x 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 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

h. 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.

i. 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.

j. 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.

k. 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 sections d)(1) and e)(1), respectively.

(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 when required by the Toledo Division of Environmental Services or Ohio EPA Central Office.

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 TDOES

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 TDOES. 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 TDOES' refusal to accept the results of the emission test(s).

Personnel from the TDOES 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 TDOES 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 TDOES.

g) Miscellaneous Requirements

(1) None.

9. 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 operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-982, as modified 7/22/1998)	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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-18-06	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 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.

(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.

(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.

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.

(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.

(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.

(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).

(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.

(6) Notwithstanding the frequency of reporting requirements specified in the previous section, 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. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(5).

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

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.

(2) The permittee shall notify the Toledo Division of Environmental Services (TDOES) 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 sent to the TDOES within 30 days after the incident occurs.

(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 section c)(2).

(4) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section c)(3).

(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 TDOES by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

(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.

f) Testing Requirements

(1) Compliance with the emission limitations in section 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).

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, 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.

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.

d. Emission Limitation:

0.551 pound of PM_{10} per year

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 60 Appendix A, 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.

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.

h. Emission Limitation:

0.21 pound of NO_x 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 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

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.

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.

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.

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 sections d)(1) and e)(1), respectively.

(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 when required by the Toledo Division of Environmental Services or Ohio EPA Central Office.

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 A; 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 TDOES.

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 TDOES. 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 TDOES' refusal to accept the results of the emission test(s).

Personnel from the TDOES 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 TDOES 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 TDOES.

g) Miscellaneous Requirements

(1) None.

10. 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 operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-982, as modified 7/22/1998)	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.
c.	OAC rule 3745-17-11(B)(1)	0.551 pound of PE per hour

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-18-06	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 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.

(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.

(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.

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.

(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.

(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.

(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).

(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.

(6) Notwithstanding the frequency of reporting requirements specified in the previous section, 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. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(5).

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

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.

(2) The permittee shall notify the Toledo Division of Environmental Services (TDOES) 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 sent to the TDOES within 30 days after the incident occurs.

(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 section c)(2).

(4) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section c)(3).

(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 TDOES by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

(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.

f) Testing Requirements

(1) Compliance with the emission limitations in section 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).

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 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.

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.

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.

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.

h. Emission Limitation:

0.21 pound of NO_x 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 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA-approved test method, with prior approval from the Ohio EPA.

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.

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.

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.

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 sections d)(1) and e)(1), respectively.

(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 when required by the Toledo Division of Environmental Services or Ohio EPA Central Office.

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, Appendix A; 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.

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 TDOES.

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 TDOES. 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 TDOES' refusal to accept the results of the emission test(s).

Personnel from the TDOES 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 TDOES 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 TDOES.

g) Miscellaneous Requirements

(1) None.

11. 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 operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-982, as modified 7/22/1998)	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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-18-06	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 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.

(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.

(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.

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.

(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.

(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.

(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).

(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.

(6) Notwithstanding the frequency of reporting requirements specified in the previous section, 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. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(5).

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

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.

(2) The permittee shall notify the Toledo Division of Environmental Services (TDOES) 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 sent to the TDOES within 30 days after the incident occurs.

(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 section d)(2).

(4) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section d)(3).

(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 TDOES by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

(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.

f) Testing Requirements

(1) Compliance with the emission limitations in section 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).

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, 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.

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.

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.

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.

h. Emission Limitation:

0.21 pound of NO_x 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 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

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.

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.

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.

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 sections d)(1) and e)(1), respectively.

(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 when required by the Toledo Division of Environmental Services or Ohio EPA Central Office.

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

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 TDOES. 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 TDOES' refusal to accept the results of the emission test(s).

Personnel from the TDOES 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 TDOES 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 TDOES.

g) Miscellaneous Requirements

(1) None.

12. 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 operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-982, as modified 7/22/1998)	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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-18-06	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 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.

(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.

(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.

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.

(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.

(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.

(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).

(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.

(6) Notwithstanding the frequency of reporting requirements specified in the previous section, 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. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(5).

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

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.

(2) The permittee shall notify the Toledo Division of Environmental Services (TDOES) 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 sent to the TDOES within 30 days after the incident occurs.

(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 section c)(2).

(4) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section c)(3).

(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 Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

(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.

f) Testing Requirements

(1) Compliance with the emission limitations in section 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).

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 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.

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.

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.

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.

h. Emission Limitation:

0.21 pound of NO_x per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing in accordance with 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.

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.

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 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.

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.

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 sections d)(1) and e)(1), respectively.

(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 when required by the Toledo Division of Environmental Services or the Ohio EPA Central Office.

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 TDOES.

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 TDOES. 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 TDOES' refusal to accept the results of the emission test(s).

Personnel from the TDOES 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 TDOES 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 TDOES.

g) Miscellaneous Requirements

(1) None.

13. 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 operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-982, as modified 7/22/1998)	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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-18-06	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 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.

(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.

(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.

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.

(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.

(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.

(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).

(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.

(6) Notwithstanding the frequency of reporting requirements specified in the previous section, 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. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(5).

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

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.

(2) The permittee shall notify the Toledo Division of Environmental Services (TDOES) 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 sent to the TDOES within 30 days after the incident occurs.

(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 section c)(2).

(4) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section c)(3).

(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 TDOES by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

(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.

f) Testing Requirements

(1) Compliance with the emission limitations in section 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).

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, 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.

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.

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.

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.

h. Emission Limitation:

0.21 pound of NO_x 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 7 of 40 CFR Part 60, Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

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.

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.

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.

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 sections d)(1) and e)(1), respectively.

(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 when required by the Toledo Division of Environmental Services or Ohio EPA Central Office.

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 TDOES.

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 TDOES. 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 TDOES' refusal to accept the results of the emission test(s).

Personnel from the TDOES 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 TDOES 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 TDOES.

g) Miscellaneous Requirements

(1) None.