



State of Ohio Environmental Protection Agency

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RE: FINAL PERMIT TO INSTALL MODIFICATION

CERTIFIED MAIL

WOOD COUNTY

Application No: 04-01200

Fac ID: 0487010012

DATE: 3/15/2005

Pilkington North America, Inc. -Rossford
Charles Baumgartner
140 Dixie Highway
Rossford, OH 434601215

Y	TOXIC REVIEW
Y	PSD
	SYNTHETIC MINOR
Y	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
Y	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. 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, Ohio 43215

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

TDES



FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 04-01200

Application Number: 04-01200

Facility ID: 0487010012

Permit Fee: \$0

Name of Facility: Pilkington North America, Inc. -Rossford

Person to Contact: Charles Baumgartner

Address: 140 Dixie Highway
Rossford, OH 434601215

Location of proposed air contaminant source(s) [emissions unit(s)]:

**140 Dixie Highway
Rossford, Ohio**

Description of proposed emissions unit(s):

6F3 Float Glass Melting Furnace.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping 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:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. 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:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. 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 appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January

31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., 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.
- iv. 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.

2. 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 appropriate Ohio EPA District Office or local air agency 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).

3. 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.

4. 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.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition

depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

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

7. 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 this Permit To Install.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. 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.
 - ii. 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.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. 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.

10. Permit To Operate Application

- a. If 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).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. 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.

B. State Only Enforceable Permit To Install General Terms and Conditions

1. Compliance Requirements

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

2. 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 appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (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 appropriate Ohio EPA District Office or local air agency. 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., 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.)

3. Permit Transfers

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

4. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. 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.

5. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. 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 the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install 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.

6. 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.

7. 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).

8. Construction Compliance Certification

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit To Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>	<u>Net Increase</u>
PM	144	14.5
SO ₂	272	39.6
NO _x	945	39.8
CO	438	428.2
VOC	20	10.2
Sulfuric Acid Mist	11.7	6.8

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

None

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas-fired float glass melting furnace 6F3 with 3R technology for NOx control	OAC rule 3745-31-05(A)(3)	220 lbs/hr of nitrogen oxides (NOx), 100 lbs/hr of sulfur dioxide (SO ₂), 4.5 lbs/hr and 20 TPY of volatile organic compounds (VOC), 2.67 lbs/hr and 11.7 TPY of acid mist, and see A.I.2.c. and A.I.2.e.
	OAC rule 3745-17-07(C)	See A.I.2.a.
	OAC rule 3745-17-11(B)(1)	41 lbs/hr of particulate emissions (PM).
	OAC rule 3745-18-06(E)(2)	See A.I.2.b.
	OAC rule 3745-21-07(B)	See A.I.2.d.
	OAC rule 3745-21-08(B)	See A.I.2.d.
	OAC rule 3745-23-06(B)	See A.I.2.d.
	OAC rule 3745-31-05(D) Synthetic Minor to avoid PSD	144 TPY of PM, based upon a rolling, 12-month summation of the monthly emissions, 945 TPY of NOx, based upon a rolling, 12-month summation of the monthly emissions, 272 TPY of SO ₂ , based upon a rolling, 12-month summation of the monthly emissions, and

OAC rule 3745-31-10 thru 20

see A.I.2.e.

200 lbs/hr CO and 438 TPY of CO based upon a rolling, 12-month summation of the monthly emissions; and 3.36 lb CO per ton glass draw

2. Additional Terms and Conditions

- 2.a** Pursuant to the provisions of OAC rule 3745-17-07(C), this facility is hereby granted the following equivalent visible particulate emissions limitations for this emissions unit in lieu of the 20 and 60 percent opacity limitations specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).
- i. Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3) and paragraph ii. below, this facility shall not cause or allow the discharge into the ambient air from any stack associated with this emissions unit any air contaminant of a shade or density greater than the equivalent visible emissions limitation (EVEL) established during the most recent stack test (an EVEL of 36.7 percent opacity, as a six-minute average was established on the December 4, 2001 stack test).
 - ii. This facility may cause or allow the discharge into the ambient air from any stack associated with this emissions unit for not more than six consecutive minutes in any 60 minutes any air contaminant of a shade or density not greater than 60 percent opacity, as a six-minute average.

For the purpose of determining compliance with the equivalent visible particulate emissions limitations specified above, visible particulate emissions shall be determined according to the test methods and procedures prescribed in OAC rule 3745-17-03(B)(1).

- 2.b** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.c** The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1) or 3745-17-07(C), OAC rule 3745-17-11(B)(1), OAC rule 3745-31-05(D) and OAC rule 3745-31-10 through 20.
- 2.d** The permittee has satisfied the “best available control techniques and operating practices” required pursuant to OAC rule 3745-21-08(B) and the “latest available control techniques and operating practices” required pursuant to OAC rules 3745-21-07(B) and 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

- 2.e The emission limits for PM and SO₂ were determined using the following emission factors: 1.2 lbs PM per ton of glass draw and 2.37 lbs of SO₂ per ton of glass draw . The annual tons of glass draw operational restriction at A.II.1. are based on these emission factors. If stack testing shows higher emission factors, further restrictions on the annual tons of glass draw will be required.

II. Operational Restrictions

- 1. The production rate of glass draw shall not exceed 229,535 tons per year, based upon a rolling, 12-month summation of the monthly production rate. This production level is based upon the currently established emissions factor for SO₂. If future stack testing results in lower emission factors being developed and approved by Ohio EPA, for sulfur dioxide and particulates, the production restriction will adjust based upon the following formula:

$$PR = EL * (1/EF) * 2000 \text{ lbs/ton}$$

where:

PR = the production rate (tons of glass draw per rolling 12-month period)

EL = the emission limit, 272 TPY of SO₂ or 144 TPY of PM (tons per rolling 12-month period)

EF = the emission factor determined from the most current stack test for SO₂ or PM (lb of pollutant per ton of glass draw)

The new allowable production limit shall be the lowest production rate resulting from the above formula (whichever pollutant with the factor and emissions limit that results in the lowest allowable production shall be used).

The emissions of particulates from this emissions unit shall not exceed 144 tons per year and emissions of sulfur dioxide from this emissions unit shall not exceed 272 tons per year, based upon a rolling, 12-month summation of the monthly emissions.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the production rate specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Production Rate of glass draw (Tons)</u>
1	20,000
1-2	40,000
1-3	60,000
1-4	80,000
1-5	100,000
1-6	120,000
1-7	140,000
1-8	160,000

1-9	180,000
1-10	200,000
1-11	220,000
1-12	229,535

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual glass draw production rate limitation shall be based upon a rolling, 12-month summation of the monthly glass-draw production rate.

2. The salt cake usage rate, in pounds per ton of glass draw, shall not exceed the rate determined during the most recent stack test which demonstrated compliance with the emission limitation.

III. Monitoring and/or Recordkeeping Requirements

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item d. above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. The permittee shall maintain monthly records of the following:
 - a. the tons of glass draw;
 - b. the total number of hours this emissions unit was in operation;
 - c. the monthly average production rate of glass, in tons of glass draw per hour, (a÷b);
 - d. the rolling 12-month summation of the glass draw, in tons,
 - e. the rolling, 12-month summation of CO, in tons;
 - f. the rolling, 12-month summation of PM, in tons;
 - g. the rolling, 12-month summation of SO₂, in tons; and
 - h. the rolling, 12-month summation of NO_x, in tons.
 - i. the salt cake usage rate, in pounds per ton of glass draw.
3. NO_x CEM Monitoring and Recordkeeping
 - a. The permittee shall install, operate and maintain the equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.
 - b. The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of pounds per hour as a rolling, 24-hour average, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
4. CO CEM Monitoring and Recordkeeping
 - a. The permittee shall install, operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.
 - b. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous

(one minute) basis, emissions of CO in units of pounds per hour as a rolling, 3-hour average, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which (a) identify all days during which any abnormal visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions.
2. The permittee shall submit deviation (excursion) reports which identify all exceedences of the rolling 12-month emission limitations for CO, PM, SO₂, NO_x and the glass draw production rate.
3. The permittee shall submit quarterly summations of the monthly records for glass draw and hours of operation. These reports shall be submitted along with the deviation reports and cover the same time period.
4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Terms and Conditions A.1.c. in this permit.
5. The permittee shall submit quarterly summations of the monthly records for the salt cake usage rate, in pounds per ton of glass draw. These reports shall be submitted along with the deviation reports required in Section A.IV of these terms and conditions and cover the same time period.
6. NO_x CEM Reporting
 - a. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in the terms and conditions of this permit. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).
 - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total

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

- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
- d. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

7. CO CEM Reporting

- a. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while

the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

- d. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60 section 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:

37.6 % opacity as a 6-minute average (based on the EVEL established on the December 2001 stack test)

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions readings performed in accordance with the requirements of 40 CFR 60, Appendix A, Method 9 and the methods and procedures of OAC rule 3745-17-03(B)(1).

- b. Emission Limitation:

3.36 lb CO per ton glass draw

Applicable Compliance Method:

The pounds of CO per ton of glass draw limit was calculated by dividing 100 pounds of CO per hour (establish by averaging stack tests) by the rolling, tons of glass draw per month divided by the hours of operation per month. If required, the permittee shall demonstrate compliance using Method 10 of 40 CFR Part 60, Appendix A.

Upon installation and certification of the CEM for CO per the methods specified in A.V.5., compliance can be calculated using the CEM data and the required recordkeeping requirements of section A.III.2.

- c. Emission Limitation:

200 lbs/hr CO.

Applicable Compliance Method:

Until such time that the CEMS is installed and certified, multiply the CO emission factor determined during the most recent stack test that demonstrated compliance, in pound(s) of CO emissions per ton of glass draw, times the average glass draw, in tons per hour. The average glass draw, in tons per hour, shall be determined through the monitoring and recordkeeping requirements of section A.III.2. If required, the permittee shall demonstrate compliance using Method 10 of 40 CFR Part 60, Appendix A.

Upon installation and certification of the CEM for CO per the methods specified in A.V.5., compliance shall be demonstrated per section A.III.4. a. and b.

d. Emission Limitation:

438 TPY of CO.

Applicable Compliance Method:

Until such time that the CEMS is installed and certified, multiply the CO emission factor determined during the most recent stack test that demonstrated compliance, in pound(s) of CO emissions per ton of glass draw, times the rolling, 12-month summation of the glass draw, in tons, and divide by 2000 lbs/ton. The rolling, 12-month summation of the glass draw, in tons, shall be determined by the monitoring and recordkeeping requirements of section A.III.2.

Upon installation and certification of the CEMS for CO, the applicable compliance method shall be the rolling, 12-month summation of CO emissions as determined in section A.III.4.

e. Emission Limitation:

220 lbs/hr of NO_x.

Applicable Compliance Method:

Until such time that the CEMS is installed and certified, multiply the NO_x emission factor determined during the most recent stack test that demonstrated compliance, in pound(s) of NO_x emissions per ton of glass draw, times the average glass draw, in tons per hour. The average glass draw, in tons per hour, shall be determined through the monitoring and recordkeeping requirements of section A.III.2. If required, the permittee shall demonstrate compliance using Method 7 of 40 CFR Part 60, Appendix A.

Upon installation and certification of the CEM for NO_x per the methods specified in A.V.5., compliance shall be demonstrated per section A.III.3. a. and b.

f. Emission Limitation:

945 TPY of NO_x.

Applicable Compliance Method:

Until such time that the CEMS is installed and certified, multiply the NO_x emission factor determined during the most recent stack test that demonstrated compliance, in pound(s) of NO_x emissions per ton of glass draw, times the rolling, 12-month summation of the glass draw, in tons, and divide by 2000 lbs/ton. The rolling 12-month summation of the glass draw, in tons, shall be determined through the monitoring and record keeping requirements of section A.III.2.

Upon installation and certification of the CEMS for NO_x, the applicable compliance method shall be the rolling, 12-month summation of NO_x emissions as determined in section A.III.3.

g. Emission Limitation:

41 lbs/hr of PM.

Applicable Compliance Method:

Multiply the particulate emission factor determined during the most recent stack test that demonstrated compliance, in pounds of particulates per ton of glass draw, by the production rate of glass (tons of glass draw per hour), established through the record keeping requirements of section A.III.2. If required, the permittee shall perform emission testing in accordance with the requirements of 40 CFR 60, Appendix A, Method 5 and the methods and procedures of OAC rule 3745-17-03(B)(10).

h. Emission Limitation:

144 TPY of PM.

Applicable Compliance Method:

Multiply the PM emission factor determined during the most recent stack test that demonstrated compliance, in pound(s) of particulate emissions per ton of glass draw, times the rolling, 12-month summation of the glass draw, in tons, and divide by 2000 lbs/ton. The rolling 12-month summation of the glass draw, in tons, shall be determined through the monitoring and record keeping requirements of section A.III.2.

i. Emission Limitation:

100 lbs/hr of SO₂.

Applicable Compliance Method:

Multiply the sulfur dioxide emission factor determined during the most recent stack test that demonstrated compliance, in pounds of SO₂ per ton of glass draw, by the production rate of glass (tons of glass draw per hour), established through the record keeping requirements of section A.III.2. If required, the permittee shall perform emission testing in accordance with the requirements of 40 CFR 60, Appendix A, Method 6 and the methods and procedures of OAC rule 3745-18-04.

j. Emission Limitation:

272 TPY of SO₂.

Applicable Compliance Method:

Multiply the SO₂ emission factor determined during the most recent stack test that demonstrated compliance, in pound(s) of SO₂ emissions per ton of glass draw, times the rolling, 12-month summation of the glass draw, in tons, and divide by 2000 lbs/ton. The rolling 12-month summation of the glass draw, in tons, shall be determined through the monitoring and record keeping requirements of section A.III.2.

k. Emission Limitation:

4.5 lbs/hr VOC.

Applicable Compliance Method:

Multiply the VOC emission factor determined during the most recent stack test that demonstrated compliance, in pound(s) of VOC emissions per ton of glass draw, times the average glass draw, in tons per hour. The average glass draw, in tons per hour, shall be determined through the monitoring and recordkeeping requirements of section A.III.2. If required, the permittee shall also demonstrate compliance using Method 25 of 40 CFR Part 60, Appendix A.

l. Emission Limitation:

20 TPY of VOC.

Applicable Compliance Method:

Multiply the VOC emission factor determined during the most recent stack test that demonstrated compliance, in pound(s) of VOC emissions per ton of glass draw, times the rolling, 12-month summation of the glass draw, in tons, and divide by 2000 lbs/ton. The rolling, 12-month summation of the glass draw, in tons, shall be determined by the monitoring and recordkeeping requirements of section A.III.2.

m. Emission Limitation:

2.67 lbs/hr of acid mist.

Applicable Compliance Method:

Multiply the acid mist emission factor determined during the most recent stack test, in pound(s) of acid mist emissions per ton of glass draw, times the average glass draw, in tons per hour. If required, the permittee shall perform emission testing in accordance with Method 8 of 40 CFR 60, Appendix A.

n. Emission Limitation:

11.7 TPY of acid mist.

Applicable Compliance Method:

Multiply the acid mist emission factor determined during the most recent stack test, in pound(s) of acid mist emissions per ton of glass draw, times the rolling, 12-month summation of the glass draw, in tons, and divide by 2000 lbs/ton. The rolling 12-month summation of the glass draw, in tons, shall be determined through the monitoring and recordkeeping requirements of section A.III.

2. The permittee shall conduct, or have conducted, emission testing for emissions unit P003 in accordance with the following requirements:
 - a. Initial emission testing shall be completed within 180 days of start-up or within 60 days after reaching full production of the unit. (NOTE: This requirement applied to the original PTI and is not required for the PTI modification.)
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for CO, PM, SO₂, NO_x, VOC, opacity and Acid Mist.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Particulates	Method 5 of 40 CFR 60, Appendix A
SO ₂	Method 6 of 40 CFR 60, Appendix A
NO _x	Method 7 of 40 CFR 60, Appendix A
Opacity	Method 9 of 40 CFR 60, Appendix A
CO	Method 10 of 40 CFR 60 Appendix A
VOC	Method 25 of 40 CFR 60 Appendix A
Acid Mist	Method 8 of 40 CFR 60, Appendix A

The permittee may request to use an alternative method or procedure. The Ohio EPA will consider the request, including any evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.

The stack test(s) shall be conducted while the emission unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services. Operation at less than 90% of the maximum capacity (i.e., less than 90% of an average 30 tons per hour of glass draw during the recorded period of any test) will result in a derating of the maximum capacity of the emission unit, which may result in additional emission limitations and/or additional stack testing.

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

Personnel from the Toledo Division of Environmental Services 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 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 Toledo Division of Environmental Services within 30 days following completion of the test(s).

3. NO_x CEM Initial Certification

- a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

- i. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. 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 Toledo Division of Environmental Services's refusal to accept the results of the emission test(s).
 - ii. Personnel from the Toledo Division of Environmental Services 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.
- b. Cylinder Gas Audit (CGA). If applicable, a CGA may be conducted in three of four calendar quarters, but in no more than three quarters in succession.
 - c. Relative Accuracy Audit (RAA). The RAA may be conducted three of four calendar quarters, but in no more than three quarters in succession. To conduct a RAA, follow the procedure described in the applicable PS in Appendix B for the relative accuracy test, except that only three sets of measurement data are required. Analyses of USEPA performance audit samples are also required.

VI. Miscellaneous Requirements

1. The emissions unit described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

2. **Quality Assurance/Quality Control for NO_x CEMs**
Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

3. **Quality Assurance/Quality Control for CO CEMs**
Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
natural gas-fired float glass melting furnace 6F3 with 3R NOx control	Compliance with the Air Toxics Policy	

2. Additional Terms and Conditions

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall collect and record the following information for each change where the air toxic modeling was required pursuant to the Air Toxic Policy:
 - a. background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.); and,
 - b. a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.

The permit to install for this emissions unit (P003) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-

hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the “worst case” pollutant(s):

Pollutant: Selenium

TLV (mg/m³): 0.2

Maximum Hourly Emission Rate (lbs/hr): 3.81

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.21

MAGLC (ug/m³): 4.76

Pollutant: Sulfuric Acid Mist

TLV (mg/m³): 1000

Maximum Hourly Emission Rate (lbs/hr): 2.67

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.86

MAGLC (ug/m³): 23.8

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the “Air Toxic Policy” is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the “Air Toxic Policy” will still be still satisfied. If, upon evaluation, the permittee determines that the “Air Toxic Policy” will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the “Air Toxic Policy” include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and,

- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the “Air Toxic Policy:”

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the “Air Toxic Policy”; and,
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the “Air Toxic Policy” for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None