



State of Ohio Environmental Protection Agency

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**RE: PERMIT TO INSTALL REGISTRATION**

**ASHTABULA COUNTY**

**Application No: 02-22034**

**Fac ID: 0204020023**

**DATE: 6/6/2006**

GE Electric Co. - Conneaut Base Plant  
Carolyn Iavarone  
880 Maple Ave  
Conneaut, OH 44030

**CERTIFIED MAIL**

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

Enclosed please find an Ohio EPA Permit to Install Registration which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit registration contains several conditions and restrictions I urge you to read it carefully.

The Ohio EPA is urging 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 Pollution Prevention at (614) 644-3469.

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: NEDO

**Permit to Install Registration  
Terms and Conditions**

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**PERMIT TO INSTALL REGISTRATION**

Application Number: 02-22034  
APS Premise Number: 0204020023  
Permit Fee: **\$200**  
Name of Facility: GE Electric Co. - Conneaut Base Plant  
Person to Contact: Carolyn Iavarone  
Address: 880 Maple Ave  
Conneaut, OH 44030

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**880 Maple Ave  
Conneaut, Ohio**

Description of proposed emissions unit(s):  
**Glass remelt furnace no. 1.**

Date of Issuance: 6/6/2006

Effective Date: 6/6/2006

The above named entity is hereby granted a Permit to Install Registration for the above described source(s) 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 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 and specifications, the above described source(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



Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. 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 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 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. Records Retention Requirements

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.

#### 4. Inspections and Information Requests

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

Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

#### **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 of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

#### **6. 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.

#### **7. 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.

#### **8. 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.

#### **9. 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.

#### **10. 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.

#### **11. Applicability**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

#### **12. 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.

#### **13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This 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 emissions unit(s) covered by this permit.

**14. Construction Compliance Certification**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) 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.

**15. 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.

**B. 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>
PE	1.49
SO <sub>2</sub>	0.92
NO <sub>x</sub>	1.36

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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.

**Operations, Property, and/or Equipment - (P046) - Glass remelt furnace no. 1**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	There shall be no visible particulate emissions (PE) from any stack egress serving this emissions unit and no visible emissions of fugitive dust to the ambient air. Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust shall be employed; see Sections A.2.b through A.2.d. The PE rate shall not exceed 0.34 lb/hr and 1.49 tons/yr. The sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 0.21 lb/hr and 0.92 ton/yr. The nitrogen oxides (NO <sub>x</sub> ) emissions shall not exceed 0.31 lb/hr and 1.36 tons/yr. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08.
OAC rule 3745-17-07(B)(1)	The emissions limitation(s) specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-08(B)	The requirements of this rule are equal in stringency to, the above-mentioned control measure requirements
OAC rule 3745-17-08(B)(3)	The requirements of this rule are less stringent than the best available control measure requirements for fugitive dust established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- 2.a The material handling operation(s) that are covered by this permit and subject to the above-mentioned requirements are listed below:

Open top feed hopper(s)  
 Closed screw charger to melter area

- 2.b The permittee shall employ best available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:

material handling operation(s)

Open top feed hopper(s)

control measure(s)

Installation and use of hoods, fans, or other equipment to adequately enclose, contain, capture, vent and control the fugitive dust, if required to maintain compliance with the no visible particulate emissions requirements.

Closed screw charger to melter area Maintain a closed charger system.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.c For each material handling operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measure(s) is unnecessary.
- 2.d Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-17-08 and 3745-31-05.
- 2.e The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established in PTI No. 02-22034. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. This rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.f The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06 by committing to comply with the best available technology (BAT) requirements established in PTI No. 02-22034. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On February 15, 2005, OAC rule 3745-23-06 was rescinded; therefore, this rule is no longer part of the State regulations. This rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

**B. Operational Restrictions**

None.

**C. Monitoring and/or Recordkeeping Requirements**

1. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

<u>material handling operation(s)</u>	<u>minimum inspection frequency</u>
Open top feed hopper(s)	daily

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. The permittee may, upon receipt of written approval from the Ohio EPA Northeast District Office, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
4. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
  - c. the dates the control measure(s) was (were) implemented; and
  - d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in 4.d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

#### D. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency; and
  - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.

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

#### E. Testing Requirements

1. Compliance with the allowable emissions limitations in section A. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emissions Limitation: No visible PE from any stack egress and no visible fugitive dust.

Applicable Compliance Method: If required, for both the stack emissions and the fugitive dust emissions, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 22 and the procedures specified in OAC rule 3745-17-03(B)(4).

- b. Emissions Limitation: 0.34 lb/hr PE rate.

Applicable Compliance Method: Compliance may be based upon the following equations:

- i. Determination of the maximum, uncontrolled (worst case) PE rate from the glass cullet ("chicklets") feed operation:

$$PE\_feed = W\_glass\ feed \times ton/2000\ lbs \times EF\_feed.$$

where:

PE\_feed = the maximum, uncontrolled PE rate, which was determined to be 0.0165 lb PE\_feed/hr.

W\_glass feed = the maximum glass feed rate, which is 165 lbs/hr as noted in the application for PTI 02-22034.

EF\_feed = the factor for the PE rate, which is based on a 0.5 lb PE/ton\_glass factor found in Table 2.9-1, Fugitive Dust Emissions Factors for Glass Manufacturing Plants in Reasonably Available Control Measures for Fugitive Dust Sources, Ohio EPA,

Office of Air Pollution Control, Division of Engineering, September, 1980, multiplied by an adjustment factor 0.40 for a melting furnace.

- ii. Determination of the maximum, uncontrolled (worst case) PE rate from the furnace:

$$PE_{\text{furnace}} = W_{\text{glass furnace}} \times EF_{\text{furnace}}.$$

where:

$PE_{\text{furnace}}$  = the maximum, uncontrolled PE rate from the furnace, which was determined to be 0.064 lb PE/hr.

$W_{\text{glass furnace}}$  = the maximum production, which is 165 lbs/hr of glass as noted in the application for PTI 02-22034.

$EF_{\text{furnace}}$  = the factor for the PE rate from the furnace, which is 0.00039 lb PE/lb glass as derived from results of an exhaust gas test performed on Y-3 furnace (P016) on 8/31/92.

- iii. Determination of the total, PE rate:

$$PE_{\text{total}} = PE_{\text{feed}} + PE_{\text{furnace}}.$$

where:

$$PE_{\text{total}} = 0.0805 \text{ lb PE/hr.}$$

- c. Emissions Limitation: 0.21 lb/hr SO<sub>2</sub> emissions.

Applicable Compliance Method: Compliance may be based upon the following equation:

$$SO_2_{\text{furnace}} = V_{\text{nat'l gas/hr}} \times EF_{SO_2}.$$

where:

$SO_2_{\text{furnace}}$  = the SO<sub>2</sub> emissions from the furnace, which is 0.00053 lb/hr.

$V_{\text{nat'l gas/hr}}$  = the maximum, hourly natural gas fuel rate, which is 331 actual cubic feet (acf) per hour as noted in the application for PTI 02-22034.

$EF_{SO_2}$  = the factor for the SO<sub>2</sub> emissions from the furnace, which is  $1.60 \times 10^{-7}$  lb SO<sub>2</sub>/acf<sub>nat'l gas</sub> as derived from results of an exhaust gas test performed on Y-3 furnace (P016) on 8/31/92.

- d. Emissions Limitation: 0.31 lb/hr NO<sub>x</sub> emissions.

Applicable Compliance Method: Compliance may be based upon the following equation:

$$NO_{X \text{ furnace}} = V_{\text{nat'l gas/hr}} \times EF_{NO_X}$$

where:

$NO_{X \text{ furnace}}$  = the  $NO_X$  emissions from the furnace, which is 0.0042 lb/hr.

$EF_{NO_X}$  = the factor for the  $NO_X$  emissions from the furnace, which is  $1.26 \times 10^{-5}$  lb  $NO_X$ /acf\_nat'l gas as derived from results of an exhaust gas test performed on Y-3 furnace (P016) on 8/31/92.

- e. Emissions Limitations: 1.49 ton PE/yr, 0.92 ton  $SO_2$ /yr and 1.36 tons  $NO_X$ /yr.

Applicable Compliance Method: Compliance may be based upon the following equation:

$$\text{Pollutant}_{\text{annual}} = \text{Pollutant}_{\text{hourly}} \times 8,760 \text{ hrs/yr} \times \text{ton}/2000 \text{ lbs.}$$

where:

$\text{Pollutant}_{\text{annual}}$  = the annual, maximum, uncontrolled rate, which were determined to be as follows: 0.35 ton PE/yr, 0.0023 ton  $SO_2$ /hr, 0.018 tons  $NO_X$ /yr, 0.11 ton VOC/yr and 0.0002 ton CO/yr.

$\text{Pollutant}_{\text{hourly}}$  = maximum, uncontrolled rate as determined in Sections E.1.b. through E.1.d.

## F. Miscellaneous Requirements

1. The maximum daily production of this emissions unit is 1.98 tons/day of glass, as derived from the maximum rate of 165 lbs/hr of glass noted in the application for PTI 02-22034. Since the maximum production rate is less than 4.55 Mg/day (less than 5.02 tons/day), this emissions unit is not subject to 40 CFR 60.290 - 60.296 (NSPS, Subpart CC), Standards of Performance for Glass Manufacturing Plants as specified in 40 CFR 60.290(c).
2. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic pollutant will be less than 1.0 ton and because the emissions unit's maximum annual emissions for each criteria pollutant was below the Ohio Modeling Significant Emissions Rate. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that a new permit to install application would be required for an emissions unit if changes in the composition of the materials or use of new materials would cause the emissions of any pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices"), to increase to above 1.0 ton per year.