

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Saint-Gobain Containers, Inc.
Attn: Valerie Krulic
Post Office Box 4200
Muncie, Indiana 47307-4200

Application No.: 07050050

I.D. No.: 031069AAI

Applicant's Designation:

Date Received: May 21, 2007

Subject: Furnace Rebuild Project

Date Issued: July 20, 2007

Location: 13850 Cottage Grove Avenue, Dolton 60419

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a furnace rebuild project, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.1 Unit: Furnace

1.1.1 Description

Saint-Gobain operates a glass container plant. In this project, the glass furnace will be altered by replacing or reconfiguring numerous components including doghouse, throat, electrodes, port openings, and refractory.

1.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Furnace	Natural Gas-fired Furnace With Electric Boost	None

1.1.3 Applicable Provisions and Regulations

- a. An "affected furnace" for the purpose of these unit-specific conditions, is the rebuilt furnace described in Conditions 1.1.1 and 1.1.2.
- b. The Permittee shall not cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from the affected furnace [35 IAC 212.123(a)].

- c. The affected furnace is subject to 35 IAC 212.316(f), which provides that no person shall cause or allow fugitive particulate matter emission from any emission unit to exceed an opacity of 20 percent.
- d. The affected furnace is subject to 35 IAC 212.321(a), which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c) [35 IAC 212.321(a)].
- e. The affected furnace is subject to 35 IAC 212.425(b), which provides that no person shall cause or allow the emission of PM₁₀, other than that of fugitive particulate matter, into the atmosphere to exceed 0.65 lb/T of glass produced during any one hour period.
- f. The affected furnace is subject to 35 IAC 214.301, which provides that no person shall cause or allow the emission of sulfur dioxide into the atmosphere to exceed 2000 ppm.

1.1.4 Non-Applicability of Regulations of Concern

- a. The Permittee has addressed the applicability of 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203, Major Stationary Sources Construction and Modification (MSSCAM) to this project, to demonstrate that the project is not a major modification. The application indicates future emissions and increases from equipment as follows:

Equipment	Future Emissions ^a /Emissions Increases ^b (Tons/Year)					
	SO ₂	NO _x	VOM	CO	PM	PM ₁₀
Raw Materials Handling	---/---	---/---	---/---	---/---	0.09/ 0.01	0.09/ 0.01
Mixer	---/---	---/---	---/---	---/---	3.65/ 0.48	3.65/ 0.48
Furnace	158.23/ 20.99	288.53/ 38.28	9.31/ 1.23	9.31/ 1.23	65.15/ 8.64	61.89/ 8.21
Mold Shop	---/---	---/---	---/---	---/---	11.82/ 1.57	11.82/ 1.57
Hot End Treatment Hoods	---/---	---/---	5.25/ 0.70	---/---	5.25/ 0.70	5.25/ 0.70
Annealing Lehrs	0.01/---	1.06/0.14	0.06/ 0.01	0.89/ 0.12	0.08/ 0.01	0.08/ 0.01
Sum of Increases	20.99	38.42	1.94	1.35	11.41	10.98

^a For SO₂, CO, and PM, future emissions are the "future projected actual emissions", as defined by 40 CFR

52.21(b)(41). For NO_x, VOM, and PM₁₀, future emissions are the potential to emit.

^b Emissions increases determined from the differences between past actual emissions or baseline actual emissions and future emissions.

b. This permit is issued based on the affected furnace not being subject to 40 CFR Part 61, Subpart N, National Emission Standard for Inorganic Arsenic Emissions From Glass Manufacturing Plants, because the affected furnace does not use commercial arsenic as a raw material [40 CFR 61.160(a)].

1.1.5 Control Requirements and Work Practices

There are no control requirements and work practice standards set for the affected furnace.

1.1.6 Production and Emission Limitations

a. The molten glass production throughput for the affected furnace shall not exceed 15,513 tons/month and 93,075 tons/year.

b. i. Emissions from the affected furnace shall not exceed the following limits:

Pollutant	Emission Limits		
	(Lbs/Ton)	(Tons/Month)	(Tons/Year)
NO _x	6.2	48.09	288.53
VOM	---	1.56	9.31
PM ₁₀	1.33	10.32	61.89

ii. Emissions from the following units, which will experience an increase in utilization as a result of this project, shall not exceed the following limits:

Unit	Emissions					
	NO _x		VOM		PM ₁₀	
	(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)
Raw Material Handling	---	---	---	---	0.02	0.09
Mixer	---	---	---	---	0.61	3.65
Mold Shop	---	---	---	---	1.97	11.82
Hot End Treatment	---	---	0.88	5.25	0.88	5.25
Annealing Lehrs	0.18	1.06	0.01	0.06	0.02	0.08

c. Compliance with the annual limit shall be determined from a running total of 12 months of data.

1.1.7 Testing Requirements

- a. Within 180 of initial startup of the affected furnace, the PM₁₀ and NO_x emissions of the affected furnace shall be measured during conditions which are representative of maximum emissions for determining compliance with Condition 1.1.6(b)(i).
- b. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Illinois EPA: Refer to 40 CFR 60, Appendix A, for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
PM ₁₀	USEPA Method 201A* and 202
Nitrogen Oxides	USEPA Method 7

* The Permittee may also use Method 5, instead of Method 201A, provided that the measured results are considered PM₁₀.

- c. At least 60 days prior to the actual date of emissions testing, a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing, including as a minimum:
 - i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
 - ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions, any constraints on the operating configuration of the affected unit during testing, and the means by which the operating parameters for the emission unit and any control equipment will be determined.
 - iii. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.
 - iv. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods.
 - v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.
 - vi. The format and content of the Source Test Report.
- d. The Illinois EPA shall be notified prior to this emissions test to enable the Illinois EPA to observe the test.

Notification of the expected date of testing shall be submitted a minimum of thirty days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five working days prior to the actual date of the test. The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.

- e. Copies of the Final Report(s) for this emissions test shall be submitted to the Illinois EPA within 60 days after completion of the test program. The Final Report shall include as a minimum:
 - i. A summary of results
 - ii. General information
 - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule
 - iv. Detailed description of test conditions, including
 - A. Process information, i.e., mode(s) of operation, process rate, e.g. raw material consumption
 - B. Control equipment information, i.e., equipment condition and operating parameters during testing
 - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

1.1.8 Monitoring Requirements

There are no monitoring requirements set for the affected furnace.

1.1.9 Recordkeeping Requirements

- a. The Permittee shall keep the following records for emissions of SO₂:
 - i. Before beginning actual construction of the project, the Permittee shall document and maintain a record of the following information [40 CFR 52.21(r)(6)(i)]:
 - A. A description of the project;

- B. Identification of the emissions unit(s) whose emissions of a regulated PSD pollutant could be affected by the project; and
- C. A description of the applicability test used to determine that the project is not a major modification for any regulated PSD pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under 40 CFR 52.21(b)(41)(ii)(c) and an explanation for why such amount was excluded, and any netting calculations, if applicable.
 - ii. The Permittee shall keep records for the emissions of CO, SO₂, and PM that could increase as a result of the project and that is emitted by any emissions unit identified in 40 CFR 52.21(r)(6)(i)(b) (See also Condition 1.1.9(a)(i)(B)) and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change [40 CFR 52.21(r)(6)(iii)].
- b.
 - i. Molten glass production throughput (tons/month and tons/year).
 - ii. Emissions from the affected furnace, raw material handling, mixer, mold shop, hot end treatment, and annealing lehrs (tons/month and tons/year).

1.1.10 Reporting Requirements

- a. The Permittee shall submit a report to the Illinois EPA and USEPA if the annual emissions, in tons per year, from the project identified in 40 CFR 52.21(r)(6)(i) (See also Condition 1.1.9(a)(i)), exceed the baseline actual emissions (as documented and maintained pursuant to 40 CFR 52.21(r)(6)(i)(c), by a significant amount (as defined in 40 CFR 52.21(b)(23) for that regulated PSD pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to 40 CFR 52.21(r)(6)(i)(c). Such report shall be submitted to the Illinois EPA and USEPA within 60 days after the end of such year. The report shall contain the following [40 CFR 52.21(r)(6)(v)]:
 - i. The name, address and telephone number of the plant;
 - ii. The annual emissions as calculated pursuant to 40 CFR 52.21(r)(6)(iii); and
 - iii. Any other information that the Permittee wishes to include in the report (e.g., an explanation as to why

the emissions differ from the preconstruction projection).

- b. The Permittee shall promptly notify the Illinois EPA of deviations of the affected furnace with the permit requirements. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.
- c. One copy of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

and one copy of reports and notifications concerning emission testing shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Source Monitoring Unit
9511 West Harrison
Des Plaines, Illinois 60016

- 2. The furnace and other affected units addressed by this construction permit may be operated under this permit until renewal of the CAAPP permit or a modification of the CAAPP permit to address this equipment is issued provided the Permittee submits a timely application to amend the current CAAPP permit to incorporate this equipment.

If you have any questions on this permit, please contact Jason Schnepf at 217/782-2113.

Edwin C. Bakowski, P.E.
Acting Manager, Permit Section
Division of Air Pollution Control

Date Issued: _____

ECB:JMS:psj

cc: Region 1

Lotus Notes
CES