TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

I. GENERAL INFORMATION

A. APPLICANT

Anchor Glass Container Corporation
2121 Huron Street
Jacksonville, FL 32254

Draft Permit No: 0310005-008-AC
County: Duval

B. PROJECT

On September 20, 2004, Anchor Glass Container Corporation submitted an application for a construction permit to modify glass melting furnace no. 3, located at the Jacksonville Plant (No. 07), 2121 Huron St., Jacksonville, Duval County, Florida. The furnace produces container glass. The furnace will be modified by increasing the maximum process rate to 14.7 tons per hour of raw materials and increasing the capacity of the electric boost system to a maximum of 2500 KVA. The furnace will be fired by natural gas with propane as an alternate fuel. Electric boost will provide additional glass production capacity. The furnace will be permitted to produce 312.26 tons of glass per day.

II. RULE APPLICABILITY

The facility is located in an area designated as attainment for the air pollutant sulfur dioxide, as unclassifiable for the air pollutant particulate matter less than or equal to ten (10) micrometers, and in an area of influence of an air quality maintenance area for particulate matter and ozone pursuant to Chapter 62-204, Florida Administrative Code (FAC), and Jacksonville Environmental Protection Board (JEPB), Rule 2.201.

The facility is a major source of air pollution for Title V purposes because the potential emissions of regulated air pollutants are greater than 100 tons per year and the facility is a major source of air pollution for Prevention of Significant Deterioration (PSD) purposes because the potential emissions of regulated air pollutants are greater than 250 tons per year pursuant to Chapter 62-210, FAC, and JEPB Rule 2.301. This project is not subject to PSD preconstruction review requirements since the modification would not result in a significant net emissions increase in accordance with Rule 62-212.400(2)(e)2., FAC, and Rule 2.401, JEPB.

Glass melting furnace no. 3 is an existing glass melting furnace with a currently permitted maximum process weight of 12.9 tons per hour (equivalent to 274 tons per day of glass production). Anchor Glass Container Corporation has requested that the permitted maximum process weight be increased to 14.7 tons per hour (equivalent to 312.26 tons per day of glass production) to meet customer demand. The modified furnace shall **not** be subject to 40 CFR 60, Subpart CC, Standards of Performance for Glass Manufacturing Plants, and 40 CFR 60, Subpart A, General Conditions. The existing furnace is capable of production at the 312.26 tons per day rate, according to the applicant, and will not be modified as defined by the above referenced 40 CFR 60 regulations. The furnace is subject to the requirement to obtain an air construction permit since the changes proposed are modifications as defined by the Department of Environmental Protection regulations, Chapter 62-210, FAC. The permitted maximum glass process weight will be capped at 14.7 tons per hour and the maximum permitted glass production rate will be capped at 312.26 tons per day and 113,976.1 tons per year. Heat input from fossil fuel firing and electrical boost input shall be limited. Limitations on the emissions of particulate matter (PM),
particulate matter less than or equal to ten (10) micrometers (PM_{10}), sulfur dioxide (SO_2) and oxides of nitrogen (NO_x) are required in order to avoid Prevention of Significant Deterioration regulations. These limitations will limit the increase of each applicable pollutant listed in Rule 62-212.400, Table 212.400-2, Regulated Air Pollutants—Significant Emission Rates, FAC and Rule 2.401, JEPB, to less than significant levels.

III. TECHNICAL EVALUATION

Glass Melting Furnace No. 3

Particulate matter emissions shall be limited to a rate in accordance with the process weight table (Table 296.320-1, FAC) for determining allowable particulate matter emissions. Interpolation of the data in Table 296.320-1, FAC for the process weight rate up to 30 tons per hour shall be accomplished by use of the equation $E = 3.59 \times P^{0.62}$, where P is less than or equal to 30 tons per hour, E = emissions in pounds per hour and P = process weight rate in tons per hour. The maximum process rate shall be limited to 14.7 tons per hour of raw materials, cullet, and additives for glass production. The glass pull rate shall be limited to a maximum of 312.26 tons per day (TPD) and 113,976.1 tons per year (TPY). Maximum allowable PM emissions at the maximum permitted process rate (14.7 tons per hour) shall be limited to 15.05 lbs per hour and 65.90 tons per year. The PM rates from the above equation apply to process rates up to and including 10.09 tons per hour. For process rates above 10.09 tons per hour the maximum allowable PM emissions shall be limited to 15.05 lbs per hour and 65.90 tons per year.

Visible emissions (VE) shall be limited to less than twenty (20) percent (%) opacity in accordance with Rule 62-296.320(4)(b), FAC, and Rule 2.1001, JEPB.

Maximum allowable PM_{10} emissions at the maximum permitted process rate (14.7 tons per hour and 128,772 tons per year) shall be limited to 14.29 pounds per hour and 62.61 tons per year, respectively.

Fossil fuels which may be fired are natural gas or propane. The maximum heat input from the combustion of fossil fuels shall be limited to 51.86×10^6 Btu per hour and $454{,}293.6 \times 10^6$ Btu per year (445.39×10^6 cubic feet per year of natural gas at a nominal heat content of 1020 Btu per cubic foot). The maximum heat input from the electrical boost system shall be limited to 8.6×10^6 Btu per hour and $75{,}336 \times 10^6$ Btu per year.

SO_2emissions shall not exceed 44.24 pounds per hour and 193.76 tons per year.

NO_x emissions shall not exceed 106.26 pounds per hour and 465.43 tons per year.

Testing for demonstration of compliance shall be performed in accordance with Environmental Protection Agency (EPA) Reference Method (RM) 9 (as described in 40 CFR 60, Appendix A) for the visual determination of opacity.

Testing for demonstration of compliance shall be performed in accordance with EPA RM 5 (as described in 40 CFR 60, Appendix A) for the determination of PM emissions.

Testing for demonstration of compliance shall be performed in accordance with EPA RM 6 or 6C (as described in 40 CFR 60, Appendix A) for the determination of sulfur dioxide emissions.

Testing for demonstration of compliance shall be performed in accordance with EPA RM 7 or 7A (as described in 40 CFR 60, Appendix A) for the oxides of nitrogen emissions.

Additional Conditions

In order to provide reasonable assurance that applicable PSD significant levels are not exceeded with the modification and operation of glass melting furnace no. 3, restrictions have been placed on the quantity of glass, which may be pulled from glass melting furnace no. 3 on a calendar year basis, and limitations on the PM, PM_{10}, SO_2, and NO_x emission rates, on a pounds per hour and calendar year basis.

Maximum Tons of Glass Pulled Per Calendar Year

113,976.1

Potential emissions from the modified glass furnace no. 3 based upon the above maximum glass pull rate are as follows:

Pollutant (Tons Per Year)

NOx	SO_2	PM	PM_{10}	CO	VOC
465.43	193.76	65.90	62.61	11.41	11.41

Contemporaneous emission increases from the modification of the no. 3 furnace only:

Pollutant (Tons Per Year)

	NOx	SO_2	PM	PM_{10}	CO	VOC
Proposed PTE	465.43	193.76	65.90	62.61	11.41	11.41
Existing Actual	425.63	159.03	50.32	47.81	9.35	9.35
Net Increase	39.8	34.73	15.58	14.8	2.06	2.06

When comparing the net increase from the project to the Significant Net Increase levels listed in Table 212.400-2, Regulated Air Pollutants—Significant Emission Rates, FAC and Rule 2.401, JEPB, it is determined that no significant net increase was triggered:

Significant Net Increase

Pollutant (Tons Per Year)

NOx	SO_2	PM	PM_{10}	CO	VOC
40	40	25	15	100	40

IV. CONCLUSION

Based upon information provided by the Anchor Glass Container Corporation, the Department has reasonable assurance that the proposed modification of glass melting furnace no. 3 and associated appurtenances, as described in this evaluation and subject to the conditions proposed herein, will not cause, or contribute to a violation of any ambient air quality standard or other technical provision of Chapters 62-296 and 62-297, FAC, or Rules 2.1001 and 2.1101, JEPB.