

**ENGINEERING EVALUATION**  
**Owens-Brockway Glass Container, Inc.**  
**PLANT NO. 11362**  
**BANKING APPLICATION NO. 8152**

**BACKGROUND**

Owens-Brockway Glass Container, Inc. (Owens-Brockway) has submitted this application to bank emission reduction credits (ERCs) from the permanent shutdown of the following equipment:

**S-1 Glass Melting Furnace A, 56 MMBtu/hr**

The S-1 Glass Melting Furnace A was located at Owens-Brockway's Glass Container Manufacturing Plant in Hayward, California. The plant has not been in production since June 11, 2003 when the S-1 Glass Melting Furnace A developed a leak and was rendered inoperable. On August 19, 2003, Owens-Brockway announced in a press release that the company would not rebuild the furnace. On November 17, 2003, the Owens-Brockway plant in Hayward officially closed. The Hayward facility opened in 1949 and was owned by the Anchor Glass Container Corporation when it was purchased by Owens-Brockway in 1997. The Hayward plant produced bottles for the wine industry. Owens-Brockway also owns another glass container manufacturing plant in Oakland, California. This application is to bank emission reduction credits of NOx, SO2, CO, and PM10 from the permanent shutdown of the S-1 Glass Melting Furnace.

**EMISSIONS REDUCTION CREDIT CALCULATIONS**

The District's ERC banking rule is Regulation 2, Rule 4. The emission calculation procedure in Section 2-4-601 refers to the emission calculation procedures in the New Source Review rule, which is Regulation 2, Rule 2. For emission reduction credits, the calculation procedure is described in Section 2-2-605. Per Section 2-2-605.1, the baseline period consists of the 3-year period immediately preceding the submittal of a *complete* banking application. This application was determined to be complete on November 19, 2003. ***Therefore, the baseline period for this application is November 1, 2000 through October 31, 2003.***

Owens-Brockway has supplied the monthly production numbers for glass pulled at S-1 Glass Melting Furnace. The production logs are in agreement with the annual updates for the calendar years 2000 and 2001 that were submitted by Owens-Brockway as part of their annual permit renewal process. Appendix A contains the monthly production or throughput and baseline throughput calculations for glass pulled at S-1 Glass Melting Furnace. The annual throughput of S-1 Glass Melting Furnace is summarized in the following table.

	Tons of Glass
11/01/00 to 10/31/01	91,928
11/01/01 to 10/31/02	89,004
11/01/02 to 10/31/03	46,844
36 Month Total	227,775
Average (Baseline Throughput)	75,925

Emission factors for the calculation of ERCs for criteria pollutants are from District and District approved source tests that were done during the emission reduction credit generation period. Regulation 2-2-605.5 requires adjustment of the baseline emission rate to comply with the most stringent of RACT, BARCT, and District rules and regulations in effect or contained in the most recently adopted Clean Air Plan. Regulation 9-12-301 and permit condition #8756 limit the emissions of NOx from glass melting furnaces to 5.50 lb NOx per ton of glass pulled. Source tests show that Owens-Brockway met the NOx limit of

Regulation 9-12-301 and permit condition #8756. In June 1999, Owens-Brockway obtained ERCs from the permanent closure of their facility and glass melting furnace in Antioch, California (Application Number 18833). For emissions of NOx from the glass melting furnace, RACT was determined to be 4.0 lb NOx per ton of glass. For this application, to determine ERC credits from the shutdown of S-1 Glass Melting Furnace, a NOx limit of 4.0 lb NOx per ton of glass pulled will also be considered RACT.

Permit condition #8756 limits S-1 Glass Melting Furnace to 300 ppmv SO2 or 5.99 lb SO2 per ton of glass pulled. Source tests show that Owens-Brockway met the permit condition limit. Permit condition #8756 also limits S-1 Glass Melting Furnace to 40 lb PM10 per hour or 3.69 lb PM10 per ton of glass pulled. Source tests show that Owens-Brockway met the permit condition limit. CO limits were not imposed in permit condition #8756. Unlike Regulation 9 Rule 12 Nitrogen Oxides from Glass Melting Furnaces, no other District regulations expressly limit SO2, PM10, or CO from glass melting furnaces.

**Source Test Results for S-1 Glass Melting Furnace (lb/ton)**

Source Test	NOx	SO2	PM10	CO
Limits	5.5	5.99	3.69	na
11/18/99 & 12/8/99	4.52**	1.48	0.77	0*
12/19/00	2.44	2.79	na	0*
3/14/01	4.8**	4.30	0.41	0.48
9/13/01	3.33	na	na	1.38
10/2/02 & 10/4/02	4.34**	2.36	0.53	2.1

\* less than the detection limit of analytical method

\*\* Emission rate capped at a limit of 4.0 lb NOx per ton of glass pulled for RACT

Adjustments for RACT, BARCT, and District Rules and Regulations

S-1 Glass Melting Furnace is subject to permit condition #8756, which follows. The annual amount of glass pulled does not exceed the limit of 107,670 tpy in part 1. The source tests results tabulated above with the permit condition limits show that Owens-Brockway did not exceed the limits for NOx, SO2, or PM10 in condition #8756, part 3.

COND# 8756 -----

For S-1, Glass Melting Furnace

1. Total glass pulled at this facility shall not exceed 107,670 tons in any consecutive twelve month period. (basis: cumulative increase)
2. Plant shall maintain monthly records of the amount of glass pulled at this facility. Records shall be retained on site for five years from the date of entry, and be available for inspection by District staff upon request. (basis: Regulation 2-6-501; cumulative increase)
3. A District-approved source test shall be conducted annually and submitted to the District within 30 days of the test date to demonstrate compliance with the following:
  - a. Nitrogen oxides emission limit of 5.5 lb/ton of glass pulled. (basis: Regulation 9-12-301, 9-12-501)
  - b. Sulfur dioxide emission limit of 300 ppm (dry). (basis: Regulation 9-1-301)
  - c. PM grain loading of 0.15 gr/dscf, and emission limit of 40 lb/hr. (basis: Regulation 6-310, 6-311)

d. Lead emission limit of 15 lb/day. (basis: Regulation 11-1-301)

(basis: Regulation 2-6-501)

4. Visible particulate emissions from S-1 shall be monitored weekly using either the District method (Manual of Procedures, Volume I, Evaluation of Visible Emissions) or EPA Method 9, and shall be retained on site for a minimum period of five years from the date of data entry and be made available to the District staff for inspection.

(basis: Regulation 6-301, Regulation 2-6-501)

5. The glass melting furnace shall be fired exclusively with natural gas, liquefied petroleum gas, or any combination thereof. (basis: cumulative increase).

Although Owens-Brockway met the permit conditions for S-1 Glass Melting Furnace, Owens-Brockway must also comply with the most stringent of RACT, BARCT, and District rules and regulations in effect or contained in the most recently adopted Clean Air Plan as per Regulation 2-2-605.5. There are nine stationary source control measures contained in the District's most current Clean Air Plan (Year 2000). They are 1) improvements to Rule 8-3 Architectural Coatings Rule; 2) the addition of surface preparation and clean up standards for Rule 8-19 Metal Parts Coating; 3) improvements to Rule 8-45 Motor Vehicle Coating; 4) improvements to Rule 8-32 Wood Products Coating; 5) adding VOC limits to concrete coating; 6) improvements to Rule 8-5 Storage of Organic Liquids; 7) improvements to Rule 8-10 Process Vessel Depressurization; 8) improvements to Rule 9-6 Residential Water Heaters; 9) seasonal limitations on organic liquid storage tank operations, wastewater separator cleaning operations, and refinery shutdown operations. Glass melting furnaces were not part of the Year 2000 plan, but as explained in the discussion above, a NOx limit of 4.0 lb NOx per ton of glass pulled was determined to be RACT for the latest banking application for a glass melting furnace (Owens-Brockway in Antioch, California, Plant Number 11361, Application Number 18833). For the shutdown of S-1 Glass Melting Furnace in Hayward, the emissions of NOx and baseline emission rate of NOx have been adjusted downward by capping NOx emissions at the RACT limit of 4.0 lb NOx per ton of glass pulled.

There are no other proposed regulatory activities affecting the ERCs calculated for SO2, PM10, and CO for S-1 Glass Melting Furnace.

Regulation 2-2-605.3 defines the baseline emission rate, expressed in units of mass of emissions per unit of throughput, as the average actual emission rate during the baseline period. Regulation 2-2-605.5 states that the baseline emission rate shall be adjusted downward, if necessary, to comply with the most stringent of RACT, BARCT, and District rules and regulations in effect or contained in the most recently adopted Clean Air Plan. Results from source tests will be used to determine emissions during the baseline period except when NOx emission rates exceed the RACT limit of 4.0 lb NOx per ton of glass pulled. A NOx emission rate of 4.0 lb NOx per ton of glass pulled is used when the source test emissions exceed this RACT limit.

**RACT-Adjusted Emission Factors for S-1 Glass Melting Furnace (lb/ton)**

Source Test	NOx	SO2	PM10	CO
11/18/99 & 12/8/99	4.0	1.48	0.77	0
12/19/00	2.44	2.79	na	0
3/14/01	4.0	4.30	0.41	0.48
9/13/01	3.33	na	na	1.38
10/2/02 & 10/4/02	4.0	2.36	0.53	2.1

Appendix A of this evaluation report contains the S-1 Glass Melting Furnace Emissions. Annual emissions from the glass melting furnace are summarized in the following table. The baseline emission rates (average actual emission rates) for each pollutant are determined by dividing the total baseline emissions by the total baseline throughput. The baseline emission rates are also tabulated in the following table.

**S-1 Glass Melting Furnace Emissions and Baseline Emission Rate**

	<b>NOx</b>	<b>SO2</b>	<b>PM10</b>	<b>CO</b>
<b>Emissions</b>				
11/01/00 to 10/31/01	324,227.56 lb	339,710.14 lb	48,357.98 lb	43,560.64 lb
11/01/01 to 10/31/02	301,628.89 lb	367,522.67 lb	37,431.22 lb	128,463.48 lb
11/01/02 to 10/31/03	187,374.00 lb	110,550.66 lb	24,827.06 lb	98,371.35 lb
36 Month Total	813,230.45 lb	817,783.47 lb	110,616.26 lb	270,395.47 lb
<b>Throughput of glass</b>				
36 Month Total	227,775 tons	227,775 tons	227,775 tons	227,775 tons
<b>Baseline Emission Rate</b>	3.57 lb/ton	3.59 lb/ton	0.49 lb/ton	1.19 lb/ton

Regulation 2-2-605.6 defines the ERCs as the difference between the adjusted baseline emission rate times the baseline throughput, and the emission cap or rate accepted by the applicant as a limiting condition. Since the equipment has been permanently shutdown, there is no emission cap. ERCs are tabulated below.

**Emission Reduction Credit Calculations**

	Average Baseline Throughput (tons/yr)	Emission Factor (lb/ton)	Emissions (lb/yr)	Emission Reduction Credits (tons/yr)
NOx	75,925	3.57	271,052.25	135.53
SO2	75,925	3.59	272,570.75	136.29
PM10	75,925	0.49	37,203.25	18.60
CO	75,925	1.19	90,350.75	45.18

**Emission Reduction Credits**

**NOx = 135.53 tpy**  
**SO2 = 136.29 tpy**  
**PM10 = 18.60 tpy**  
**CO = 45.18 tpy**

The bankable emissions calculated for S-1 Glass Melting Furnace have been adjusted for RACT and are not in excess of any other applicable District, state or federal regulatory limit.

**SMALL FACILITY BANK AND BANKING ACCOUNT**

Owens-Brockway has not been the recipient of NOx, SO2, PM10, or CO offsets from the Small Facility Banking Account (SFBA). Therefore, no such emission offsets are required to be repaid to the SFBA as per Regulation 2-4-303.5. Appendix B of this evaluation report contains a printout from the District's databank that shows both Owens-Brockway and the previous owner's (Anchor Glass Container Corporation, Plant Number 2086) cumulative NOx, SO2, PM10, and CO increases and any contemporaneous reductions and/or offsets provided. The data displays the Banking Certificate Numbers (if any) that were used to offset any cumulative increases. No credits from the SFBA are shown.

## STATEMENT OF COMPLIANCE

The ERC calculations were performed in accordance with the procedures outlined in Regulation 2-2-605. ERCs for S-1 Glass Melting Furnace are calculated based on the equipment throughput over the 3-year baseline period from November 1, 2000 through October 31, 2003. The application was determined to be complete as of November 19, 2003. The bankable ERCs were calculated using a limit of 4.0 lb NO<sub>x</sub> per ton of glass pulled which was determined to be RACT. ERCs for SO<sub>2</sub>, PM<sub>10</sub>, and CO are calculated using District and District approved source tests that were taken during the emission reduction credit generation period.

To meet the standards of Regulation 2-4-302.2 for Bankable Reductions for closures, Owens-Brockway was required to prove that the shutdown of S-1 Glass Melting Furnace in Hayward would not result in the transfer of production to another source owned by the applicant within the District.

**2-4-303 Limitations on Deposits:** The following cannot be banked:

303.2 Emission reductions from closure of sources where the demand for the services or product would merely shift to other sources in the District, with little or no decrease in emissions basin-wide.

2.1 The APCO may, at his or her discretion, require submittal of data to document that reductions from the closure of such types of operations will not result in such a shift, and could therefore be banked.

2.2 Only the net reduction (if any) shall be banked for shutdowns of manufacturing operations where the operation is being transferred elsewhere within the same stationary source or to a different stationary source owned by the applicant within the District.

(Amended 7/17/91; 6/15/94; 10/7/98; 5/17/00)

In a January 28, 2004 letter to the District, the applicant demonstrated that after the shutdown of the Hayward facility, production at Oakland did not increase. Although some production from Hayward was transferred to Oakland, production from Oakland was also transferred to other plants outside of the Bay Area, which resulted in a net decrease in the production of glass in the Bay Area. The January 28, 2004 letter to the District disclosed that Owens-Brockway transferred production from the Hayward Plant to the following plants:

Bay Area Facilities

Oakland Plant: 3600 Alameda Avenue, Oakland, CA 94601

Facilities Outside of the Bay Area

Lavington Plant: Hill Drive, Lavington, B.C. Canada, VOE 2B0  
Muskogee Plant: York and Shawnee Streets, Muskogee, OK 74403  
Lapel Plant: 2481 S. Brookside Road, Lapel, IN 46051  
Portland Plant: 9710 NE Glass Plant Road, Portland, OR 97220  
Los Angeles Plant: 2901 Fruitland Avenue, Vernon, CA 90058  
Tracy Plant: 14700 W. Schulte Road, Tracy, CA 95376

Owens-Brockway has submitted a production schedule for 2004 (Appendix C), which shows an item-by-item analysis of items that were produced at Hayward that are shifted to Oakland and items that were produced at Oakland that are shifted to plants out of the Bay Area. The amount of production shifted to Oakland is less than that shifted from the facility resulting in a net decrease in production.

Production transferred to Oakland from Hayward	27,344.4 tpy
Production transferred from Oakland to other plants located outside of the District	29,036.8 tpy

Net glass production in the District

-1,692.40 tpy

Owens-Brockway has submitted 2003 production data for Oakland that shows that overall production did not shift to the Oakland facility when the glass furnace at Hayward failed. A graph showing 2003 production data for the Oakland facility is in Appendix C. Owens-Brockway has shown as per Regulation 2-4-303.2 that emission reductions from the shutdown of S-1 Glass Melting Furnace at the Hayward facility did not shift and will not shift to other sources in the District. The Owens-Brockway Oakland facility is the last glass plant in the District. The furnaces at the Oakland facility are conditionally permitted not to exceed a combined throughput limit of 360,000 tons of glass pulled per year (Permit Conditions #13900 and 19301).

Consistent with Regulation 2-4-302.3, the permanency of the closure of S-1 Glass Melting Furnace has been accomplished since the furnace is inoperable.

Based on the data and communications provided by Owens-Brockway, the ERCs are real, quantifiable, enforceable, and permanent as required by the definition of Emission Reduction Credit in Regulation 2-2-201.

The ERCs for S-1 Glass Melting Furnace exceed 40 tons/yr of POC and the application is therefore subject to the Publication, Public Comment and Inspection requirements of Regulation 2-4-405. Before approving this banking application, the District must publish a notification of the preliminary decision to approve the ERCs. Following publication, there will be a 30-day public comment period, during which the District will accept written comments.

Applications to deposit emission reductions in the emissions bank pursuant to Regulation 2, Rule 4 are exempt from CEQA as stated in Regulation 2-1-312.10. Owens-Brockway has completed and signed an Appendix H Environmental Information Form to ensure that the project has no potential for causing a significant adverse impact on the environment.

A toxics risk screening analysis is not required since there is no emission increase associated with the project.

BACT, PSD, Offsets, NSPS, and NESHAPS do not apply.

**CONDITIONS**

Conditions are commonly imposed on banking applications when an emission reduction is permanent at the source but it is unclear whether the reduction will be replaced by an emissions increase elsewhere at the facility or within the District, or to ensure the permanency of the closure. After the permanent shutdown of S-1 Glass Melting Furnace in Hayward, only one glass plant remains in operation in the jurisdiction of the BAAQMD. The only remaining glass plant is in Oakland (Plant Number 30), which is also owned by Owens-Brockway. Owens-Brockway has provided production data from both the Hayward and the Oakland facilities, which show that the production in Oakland remained constant after the Hayward glass melting furnace was shutdown. The shutdown of the Hayward facility did not result in a production or emission increase at the Oakland facility. The glass furnaces at Oakland are conditionally permitted not to exceed a combined throughput limit of 360,000 tons of glass pulled per year (Permit Conditions #11930 and #11931). For the glass furnaces in Oakland, Owens-Brockway will continue to be subject to Permit Conditions #11930 and #11931.

COND# 11930 -----

Plant 30, Sources S-10 and S-11, Glass Melting  
Furnaces

1. Total glass pulled at each S-10 and S-11 shall each not exceed 125,000 tons in any consecutive twelve month period. (basis: emissions banking)
2. NOx Emissions from S-10 shall not exceed 212.7 tons in any consecutive 12 month period. (basis: legal agreement)
3. Within 6 months of final issuance of the Major Facility Review permit, the owner/operator of S-10 shall install and operate a District-approved continuous emissions monitor (CEM) to measure the NOx emissions from S-10, a District-approved flowmeter to measure the exhaust gas flowrate from S-10, a District-approved method of measuring the tons of glass pulled, and a data logger and recorder. All of the above monitoring equipment shall be pre-approved by the District Source Test Manager. The monitoring shall demonstrate compliance with both part #2 of this condition and Regulation 9-12-301. (basis: 1-521, 2-6-501)
- 4a. Plant shall maintain monthly records of the amount of glass pulled at S-10, all source test data, CEM data, exhaust gas flowrate data, mass emissions per ton using 3 hour averaging, and total consecutive 12 month mass emissions. Records shall be retained on site for five years from the date of entry, and be available for inspection by District staff upon request. (basis: emissions banking)
- 4b. Plant shall maintain monthly records of the amount of glass pulled at S-11. Records shall be retained on site for five years from the date of entry, and be available for inspection by District staff upon request. (basis: emissions banking)
4. The owner/operator of S-10 and S-11 shall conduct a District-approved annual source test at each furnace in order to demonstrate compliance with Regulation 11-1-301. The results of this test shall be kept on site for at least five years from the date of the test and be made available to District staff upon request. (basis: Regulation 2-6-501)
5. The owner/operator of S-10 and S-11 shall conduct a District-approved annual source test at each furnace in order to demonstrate compliance with Regulations 9-1-302. The

results of these tests shall be kept on site for at least five years from the date of the test and be made available to District staff upon request. (basis: Regulation 2-6-501)

6. The owner/operator of S-10 and S-11 shall conduct an annual District-approved source test at each furnace in order to demonstrate compliance with Regulations 6-310 and 6-311. The results of these tests shall be kept on site for at least five years from the date of the test and be made available to District staff upon request. (basis: Regulation 2-6-501)

7. The owner/operator of S-10 and S-11 shall maintain and operate continuous opacity monitors in accordance with the Manual of Procedures, Volume V. (basis: Regulation 6-501)

\*9. S-11 shall be abated, at all times of operation by the properly maintained and properly operated A-9 Electrostatic Precipitator. (basis: Proposition 65)

COND# 11931 -----

Plant 30, Source 12, Glass Melting Furnace

1) Total glass pulled at this S-12 furnace shall not exceed 110,000 tons in any consecutive twelve month period. (basis: emissions banking)

2) Plant shall maintain monthly records of the amount of glass pulled at this furnace. Records shall be retained on site for five years from the date of entry, and be available for inspection by District staff upon request. (basis: emissions banking)

3. The owner/operator of S-12 shall conduct a District-approved annual source test at each furnace in order to demonstrate compliance with Regulation 11-1-301. The results of this test shall be kept on site for at least five years from the date of the test and be made available to District staff upon request. (basis: Regulation 2-6-501)

4. The owner/operator of S-12 shall conduct a District-approved annual source test at each furnace in order to demonstrate compliance with Regulations 9-1-302. The results of these tests shall be kept on site for at least five years

from the date of the test and be made available to District staff upon request. (basis: Regulation 2-6-501)

5. The owner/operator of S-12 shall conduct an annual District-approved source test at each furnace in order to demonstrate compliance with Regulations 6-310 and 6-311. The results of these tests shall be kept on site for at least five years from the date of the test and be made available to District staff upon request. (basis: Regulation 2-6-501)

6. The owner/operator of S-12 shall maintain and operate continuous opacity monitors in accordance with the Manual of Procedures, Volume V. (basis: Regulation 6-501)

\*7. S-12 shall be abated, at all times of operation by the properly maintained and properly operated A-9 Electrostatic Precipitator. (basis: Proposition 65)

**RECOMMENDATION**

Cancel the Permit to Operate for the following Equipment:

**S-1 Glass Melting Furnace A, 56 MMBtu/hr**

Issue emission reduction credits (ERCs) to Owens-Brockway in the amounts shown below.

**NO<sub>x</sub> 135.53 tons per year**  
**SO<sub>2</sub> 136.29 tons per year**  
**PM<sub>10</sub> 18.60 tons per year**  
**CO 45.18 tons per year**

Mail the Banking Certificate to the owner.

Mr. Mark Tussing  
Manager Environmental Affairs  
Owens-Brockway Glass Container Inc.  
One Seagate – 30 LDP  
Toledo, OH 43666

By: \_\_\_\_\_  
Pamela J. Leong  
Air Quality Engineer II  
March 11, 2004



APPENDIX B

Emission Increases  
Source: BAAQMD Database

N O X E M I S S I O N I N C R E A S E (tpy, post 4/5/91)

Owens Brockway Glass Container, Inc [plant: 11362] 03Mar04

---

Application No.	incr.	contemp	reduction	ratio	offsets	Bank
-----------------	-------	---------	-----------	-------	---------	------

---

-

Balance (tons/year): .000 (\* = ERCs returned to Small Facility Bank)

S O 2 E M I S S I O N I N C R E A S E (tpy, post 4/5/91)

Owens Brockway Glass Container, Inc [plant: 11362] 03Mar04

---

Application No.	incr.	contemp	reduction	ratio	offsets	Bank
-----------------	-------	---------	-----------	-------	---------	------

---

-

Balance (tons/year): .000 (\* = ERCs returned to Small Facility Bank)

P M 1 0 E M I S S I O N I N C R E A S E (tpy, post 4/5/91)

Owens Brockway Glass Container, Inc [plant: 11362] 03Mar04

---

Application No.	incr.	contemp	reduction	ratio	offsets	Bank
-----------------	-------	---------	-----------	-------	---------	------

---

18538 .002

Balance (tons/year): .002 (\* = ERCs returned to Small Facility Bank)

C O E M I S S I O N I N C R E A S E (tpy, post 4/5/91)

Owens Brockway Glass Container, Inc [plant: 11362] 03Mar04

---

Application No.	incr.	contemp	reduction	ratio	offsets	Bank
-----------------	-------	---------	-----------	-------	---------	------

-----  
-

-----  
-

Balance (tons/year): .000 (\* = ERCs returned to Small Facility Bank)

N O X E M I S S I O N I N C R E A S E (tpy, post 4/5/91)

Anchor Glass Container Corporation [plant: 2086] 03Mar04

---

Application No.	incr.	contemp	reduction	ratio	offsets	Bank
-----------------	-------	---------	-----------	-------	---------	------

-----  
-

-----  
-

Balance (tons/year): .000 (\* = ERCs returned to Small Facility Bank)

S O 2 E M I S S I O N I N C R E A S E (tpy, post 4/5/91)

Anchor Glass Container Corporation [plant: 2086] 03Mar04

---

Application No.	incr.	contemp	reduction	ratio	offsets	Bank
-----------------	-------	---------	-----------	-------	---------	------

-----  
-

-----  
-

Balance (tons/year): .000 (\* = ERCs returned to Small Facility Bank)

P M 1 0 E M I S S I O N I N C R E A S E (tpy, post 4/5/91)

Anchor Glass Container Corporation [plant: 2086] 03Mar04

---

-----  
-

Application No.	incr.	contemp	reduction	ratio	offsets	Bank
-----------------	-------	---------	-----------	-------	---------	------

-----  
-

-----  
-

Balance (tons/year): .000 (\* = ERCs returned to Small Facility Bank)

C O E M I S S I O N I N C R E A S E (tpy, post 4/5/91)

Anchor Glass Container Corporation [plant: 2086] 03Mar04

---

Application No.	incr.	contemp	reduction	ratio	offsets	Bank
-----------------	-------	---------	-----------	-------	---------	------

-----  
-

-----  
-

Balance (tons/year): .000 (\* = ERCs returned to Small Facility Bank)

APPENDIX C

Owens-Brockway  
2003 Production  
2004 Production Schedule