

**Bay Area Air Quality Management District**

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**Permit Evaluation  
and  
Statement of Basis  
for  
Renewal of  
MAJOR FACILITY REVIEW PERMIT**

for  
**Owens-Brockway Glass Container, Inc.**  
**Facility #A0030**

**Facility Address:**  
3600 Alameda Avenue  
Oakland, CA 94601

**Mailing Address:**  
One Seagate  
Toledo, OH 43666

November 2013

Application Engineer: Brenda Cabral  
Site Engineer: Brenda Cabral

Application: 22604

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## **Title V Statement of Basis**

### **A. Background**

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Volume 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a major facility as defined by BAAQMD Regulation 2-6-212. It is a major facility because it has the “potential to emit,” as defined by BAAQMD Regulation 2-6-218, of more than 100 tons per year of the following regulated air pollutants: NO<sub>x</sub> and SO<sub>x</sub>.

Major Facility Operating permits (Title V permits) must meet specifications contained in 40 CFR Part 70 as contained in BAAQMD Regulation 2, Rule 6. The permits must contain all applicable requirements (as defined in BAAQMD Regulation 2-6-202), monitoring requirements, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all monitoring at least every six months and compliance certifications at least every year.

In the Bay Area, state and District requirements are also applicable requirements and are included in the permit. These requirements can be federally enforceable or non-federally enforceable. All applicable requirements are contained in Sections I through VI of the permit.

Each facility in the Bay Area is assigned a facility identifier that consists of a letter and a 4-digit number. This identifier is also considered to be the identifier for the permit. The identifier for this facility is A0030.

The proposed minor permit revision to the Major Facility Review Permit for Owens Brockway Glass Company (OB) is evaluated under Permit Application #17196. The revision incorporates modifications in Permit Applications #14034 and #17195 described below.

This facility received its initial Title V permit on January 5, 2004 and was renewed on March 21, 2006. This application is for a permit renewal. Although the current permit expired on March 20, 2011, it continues in force until the District takes final action on the permit renewal. The standard sections of the permit have been upgraded to include new standard language used in all Title V permits. The proposed permit shows all changes to the permit in strikeout/underline format.

### **B. Facility Description**

Owens-Brockway Glass Container Inc (OB) makes glass containers at its facility located in Oakland, CA. OB uses three glass melting furnaces (S10, S11, and S12) to form molten glass from a mixture of sand, soda ash, salt cake, limestone and cullet (recycled crushed glass). After the furnaces, the molten glass is removed from the furnace, cooled to a uniform temperature and cut into "gobs." Each gob will form a single glass container. Gobs are then diverted into forming machines where they are molded into glass containers. These containers pass through the Lehr, where they are reheated and gradually cooled to relieve any stresses in the glass. This conditioning step, which includes the Hot End Surface Treatment, strengthens glass containers and helps prevent breakage. Finally, the finished product is cooled, inspected and packaged.

The following is a list of applications that have been filed and processed since the issuance of the permit renewal:

*Permit Application #14034:* Sources S25, S27, S29, S30, S32 and S33 are Hot End Surface Treatment sources that apply a coating onto glass containers to make them resistant to scratches. The coating used at these sources was changed from stannic chloride to monobutyltin trichloride (MBTT).

*Permit Application #15652:* This application was for a repair of the charger wall and the refiner at S10 Glass Melting Furnace. The refractory replacement did not change the firebox configuration, and combustion emissions did not increase. S10 is equipped with NOx and O2 monitors to demonstrate compliance with a NOx emission rate and annual emission limit.

*Permit Application #17195:* OB modified Source S10, Furnace C, to add a new forming line (S135). S135 replaced S75 forming line (that included S24 and S31 Hot End Surface Treatment) that was taken out of service, dismantled, and the parts have been removed from the Oakland site. The new forming line was installed in the same location as S75, but did not increase the capacity of the furnace since it was an “identical” replacement. In addition, new S136 replaced S24 and S31, Hot End Surface Treatment. This project did not result in an emissions increase.

*Permit Application #17196:* Minor Revision to add sources covered by Permit Applications Nos. 17195. The permit dates were also updated.

*Permit Application #20634:* Bottom cooling was installed in the C-1 forehearth located at S10 C Furnace, for more precise control of glass temperature as glass flows to the forming machines. Cooling air holes were drilled into the outer refractory of the forehearth, and a new forced draft fan supplies the cooling air. No increase in emissions resulted from the installation of the cooling system.

*Permit Application #21992:* Title V Administrative Amendment to change responsible official.

*Permit Application #23026:* Title V Administrative Amendment to change responsible official.

*Permit Application #23321:* This application was for the repair of S11 “D” Furnace, which prior to the repair, had been drained, cooled, and idled for several months due to a slow economy. Repairs were performed in several places in the furnace including the furnace floor and ceiling, the forehearths, and melters. The project did not change the size or shape of the furnace, nor the heat generation or absorption characteristics of S11. Thus, the project did not result in an emissions increase.

*Permit Application #25540:* Application for an additional baghouse for the Hot End Surface Treatment sources S25, S27, S29, S30, S32, S33 and S136.

**Administrative amendments:**

The facility submitted a letter on July 22, 2013, advising the District that the new Responsible Official is Deon van den Berg. This is an administrative amendment as defined by Regulation 2-6-201.

The facility submitted an email on August 28, 2013, advising the District that the new corporate address has changed. This is an administrative amendment as defined by Regulation 2-6-201.

Changes in emissions

Following are the emissions estimated by the facility and submitted in the Title V renewal applications that were submitted on June 30, 2004 and September 20, 2010. The differences are minor and the result of normal variations in production. The District considers that there has been no significant change in emissions.

	6/30/2004	9/20/2010
Pollutant	tpy	tpy
Particulate	80.4	104
Organics	0.1	0.14
NOx	430.7	383
SO2	257.1	282
CO	22.9	32.8
Lead	0.2	0.15
Ammonia	3	2.7
Arsenic	0	0
Cadmium	0	0
Manganese	0	0
Nickel	0	0
Selenium	0.1	0.14

**C. Permit Content**

**I. Standard Conditions**

This section contains administrative requirements and conditions that apply to all facilities. Many of these conditions derive from 40 CFR § 70.6, Permit Content, which dictates certain standard conditions that must be placed in the permit. The language that the District has developed for many of these requirements has been adopted into the BAAQMD Manual of Procedures, Volume II, Part 3, Section 4, and therefore must appear in the permit.

The standard conditions also contain references to BAAQMD Regulation 1 and Regulation 2. These are the District's General Provisions and Permitting rules.

The dates in Section I.A have been updated

The dates in Section I.B.1 will be updated upon issuance.

Regulation 2-6-409.20 has been added as a basis for Condition I.B.12.

Regulation 3 has been removed as a basis for Conditions E.2 and F.

## **II. Equipment**

This section of the permit lists all permitted or significant sources. Each source is identified by an S and a number (e.g., S24).

Permitted sources are those sources that require a BAAQMD operating permit pursuant to BAAQMD Rule 2-1-302.

Significant sources are those sources that have a potential to emit of more than 2 tons per year of a “regulated air pollutant” (as defined in BAAQMD Rule 2-6-222) or 400 pounds per year of a “hazardous air pollutant” (as defined in BAAQMD Rule 2-6-210).

All abatement (control) devices that control permitted or significant sources are listed. Each abatement device whose primary function is to reduce emissions is identified by an A and a number (e.g., A-24). If a source is also an abatement device, such as when an engine controls VOC emissions, it will be listed in the abatement device table but will have an “S” number. An abatement device may also be a source (such as a thermal oxidizer that burns fuel) of secondary emissions. If the primary function of a device is to control emissions, it is considered an abatement (or “A”) device. If the primary function of a device is a non-control function, the device is considered to be a source (or “S”).

The equipment section is considered to be part of the facility description. It contains information that is necessary for applicability determinations, such as fuel types, contents or sizes of tanks, etc. This information is part of the factual basis of the permit.

Each of the permitted sources has previously been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. These permits are issued in accordance with state law and the District’s regulations. The capacities in the permitted sources table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-403.

### Changes to permit:

The following sources have been deleted: S63, Mold Repair Shop Cold Cleaner, and S81 Forming Machine.

The description of S67, Mold Repair Coating Oven, has been corrected to “Mold Repair Spray Booth.”

The following abatement device was added: A25 abating sources S25, S27, S29, S30, S32, S33, and S136.

The citation of BAAQMD Regulation 6, Rule 1, Particulate Matter, General Provisions, has been updated in Table II-B, Abatement Devices.

The citation of SIP Regulation 6, Particulate Matter and Visible Emissions, has been added to Table II-B, Abatement Devices.

The process weight standard in BAAQMD Regulation 6-1-311 and SIP Regulation 6-311 was added for the following abatement devices and sources to conform with the citations in Section IV and VII:

- S11, S12, S25, S27, S29, S30, S32, S33, S41, S42, S48, S50, S52, S56, S58, S97, and S136
- A1, A3, A9, A41, A42, A48, A50, A58, A520, A521, A522, A560, A561, A562, and A563

### **III. Generally Applicable Requirements**

This section of the permit lists requirements that generally apply to all sources at a facility including insignificant sources and portable equipment that may not require a District permit. If a generally applicable requirement applies specifically to a source that is permitted or significant, the standard will also appear in Section IV and the monitoring for that requirement will appear in Sections IV and VII of the permit. Parts of this section apply to all facilities (e.g., particulate, architectural coating, odorous substances, and sandblasting standards). In addition, standards that apply to insignificant or unpermitted sources at a facility (e.g., refrigeration units that use more than 50 pounds of an ozone-depleting compound) are placed in this section.

Unpermitted sources are exempt from normal District permits pursuant to an exemption in BAAQMD Regulation 2, Rule 1. They may, however, be specifically described in a Title V permit if they are considered “significant sources” as defined in BAAQMD Rule 2-6-239.

#### Changes to permit:

The dates of several standards have been updated or corrected.

Table III has been updated by adding the following rules and standards to conform to current practice:

- BAAQMD Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants
- SIP Regulation 8, Rule 3, Architectural Coatings
- BAAQMD Regulation 8, Rule 16, Solvent Cleaning
- Regulation 9, Rule 2, Hydrogen Sulfide
- BAAQMD and SIP Regulation 11, Rule 1, Lead
- The citations for EPA’s Protection of Stratospheric Ozone regulation have been clarified.

#### **IV. Source-Specific Applicable Requirements**

This section of the permit lists the applicable requirements that apply to permitted or significant sources. These applicable requirements are contained in tables that pertain to one or more sources that have the same requirements. The order of the requirements is:

- District Rules
- SIP Rules (if any) are listed following the corresponding District rules. SIP rules are District rules that have been approved by EPA for inclusion in the California State Implementation Plan. SIP rules are “federally enforceable” and a “Y” (yes) indication will appear in the “Federally Enforceable” column. If the SIP rule is the current District rule, separate citation of the SIP rule is not necessary and the “Federally Enforceable” column will have a “Y” for “yes”. If the SIP rule is not the current District rule, the SIP rule or the necessary portion of the SIP rule is cited separately after the District rule. The SIP portion will be federally enforceable; the non-SIP version will not be federally enforceable, unless EPA has approved it through another program.
- Other District requirements, such as the Manual of Procedures, as appropriate.
- Federal requirements (other than SIP provisions)
- BAAQMD permit conditions. The text of BAAQMD permit conditions is found in Section VI of the permit.
- Federal permit conditions. The text of Federal permit conditions, if any, is found in Section VI of the permit.

Section IV of the permit contains citations to all of the applicable requirements. The text of the requirements is found in the regulations, which are readily available on the District or EPA websites, or in the permit conditions, which are found in Section VI of the permit. All monitoring requirements are cited in Section IV. Section VII is a cross-reference between the limits and monitoring requirements. A discussion of monitoring is included in Section C.VII of this permit evaluation/statement of basis.

#### Complex Applicability Determinations

##### BAAQMD Regulation 6, Rule 1, Particulate Matter, General Requirements and SIP Regulation 6, Particulate Matter and Visible Emissions

(These two rules have identical requirements, but have different names and numbering.)

The District has determined that the following requirements do not apply to sources S39, Raw material unloading station, and S76, S77, S79 to S81, S83, S84, S135, Forming Machines, because they do not have stacks and only have fugitive emissions, and therefore are not subject to testing requirements.

- BAAQMD 6-1-310, Particulate Weight Limitation
- SIP 6-310, Particulate Weight Limitation
- BAAQMD 6-1-311, General Operations
- SIP 6-311, General Operations

The District has determined that the following requirements do not apply to source S67, Mold Repair Spray Booth, because spray booths are not considered to be processes.

- BAAQMD 6-1-311, General Operations
- SIP 6-311, General Operations



### NESHAPS

S11 and S12, Glass Melting Furnaces are subject to the following NESHAPS: 40 CFR 63, Subpart SSSSSS, National Emission Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources, because chromium is added when making green glass. The requirements of the NESHAPS and the applicable portions of 40 CFR 63, Subpart A, General Provisions, have been added to Tables IV-B and IV-C.

S67, Mold Repair Spray Booth, is not subject to the NESHAPS, Subpart HHHHHH, National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources because metal parts are not sprayed coatings containing “target HAP” and methylene chloride is not used to strip the parts. Target HAP are defined in Section 63.11180 as compounds of chromium, lead, manganese, nickel, or cadmium.

S130, S131, S132, and S133, Emergency Engines, are now subject to the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines in 40 CFR 63, Subpart ZZZZ (NESHAPS). S131, S132, and S133 are subject to the California Air Resources Board Air Toxics Control Measure for Stationary Compression Ignition Engines (ATCM) in CCR Title 17, Section 93115, et seq. because they are diesel engines. These requirements have been added to Table IV-L. Because the engines were built before 2000, the ATCM limits their use for reliability testing to 20 hours per year. There is no limit on usage during emergencies.

The NESHAPS adds the following maintenance requirements:

- Change oil and filter every 500 hours of operation or annually, whichever comes first
- Inspect air cleaner every 1000 hours of operation or annually, whichever comes first
- Inspect air cleaner every 1000 hours of operation or annually, whichever comes first

### CAM

40 CFR 64, Compliance Assurance Monitoring, applies when a source (emission unit) emits more than 100% of the major source threshold of a pollutant before abatement, is subject to a federally-enforceable limit for that pollutant, and has a control device for that pollutant. At Owens-Brockway, the only sources that are large enough to consider are the 3 glass furnaces, S10, S11, and S12.

The furnaces are subject to the federally-enforceable limitations on opacity and filterable particulate in SIP Regulation 6, Particulate Matter and Visible Emissions.

Of these, only S11 and S12 have a control device, A9, Electrostatic Precipitator, for particulate. The emissions of filterable particulate from both furnaces are about 0.54 lb/ton of glass pulled. S11 and S12 have throughput limits of 125,000 tpy and 110,000 tpy, respectively, or 235,000 tpy total. The source tests on which the emission factor is based were performed in the 1992 and 1995.

Based on the emission factor, the total emissions of filterable particulate before abatement are about 63.45 tpy and the sources are not subject to CAM for the limits in SIP Regulation 6-310 and 6-311.

In regards to the opacity limit, the test to determine whether there are 100 tpy of particulate would be based on total particulate. The tests at the furnaces have only measured filterable particulate. EPA's AP-42 chapter on glass, Chapter 11.15, was published in October, 1986, and only has a factor for uncontrolled "particulate" of 1.4 lb/ton for a furnace producing glass for containers. Presumably, this number includes TSP and may not contain condensables. However, TSP would be expected to have more of an impact on opacity than condensables, so this emission factor will be used to determine whether the sources are subject to CAM for opacity. Based on a maximum throughput of 235,000 tpy and an emission factor of 1.4 lb/ton, the potential to emit of uncontrolled "particulate" would be 164.5 tpy and the source could be subject to CAM.

Section 64.2(b)(1)(vi) exempts "emission limitations or standards for which a part 70 or 71 permit specifies a continuous compliance determination method, as defined in §64.1." Opacity at the furnaces is monitored with opacity meters and the Title V (part 70) permit specifies opacity monitors as a "continuous compliance determination method," so the sources are exempt from CAM for opacity.

BAAQMD Regulation 8, Rule 19, Surface Preparation and Coating of Miscellaneous Metal Parts and Products

S67, Mold Repair Spray Booth, is not subject to Regulation 8, Rule 19, or Regulation 8, Rule 2, Miscellaneous Operations, because the coating contains graphite, not VOC.

Other changes in this action

- The dates of several standards have been updated or corrected.
- BAAQMD Regulation 6, Particulate Matter and Visible Emissions, was renumbered to Regulation 6, Rule 1, and was renamed as "Particulate Matter, General Requirements.
- SIP Regulation 6, Particulate Matter and Visible Emissions, was added because the District's particulate regulation was renumbered and renamed and is no longer in the SIP (State Implementation Plan).
- Monthly monitoring for SO<sub>2</sub> has been added to Condition 11930 for S10 and S11, Glass Melting Furnaces and Condition 11931 for S12, Glass Melting Furnace. See discussion in Section C.VI.
- Monthly monitoring for CO has been added to Condition 20003 for S12, and Condition 21614 for S11, Glass Melting Furnaces. See discussion in Section C.VI.
- Sources S25, S27, S29, S30, S32, S33 and S136, Hot End Bottle Surface Treatment
  - BAAQMD Regulation 8, Rule 4, was added to the applicable requirements for Sources S25, S27, S29, S30, S32, S33 and S136, Hot End Bottle Surface Treatment because the tin treatment now contains VOC.
  - Condition 23142 for Sources S25, S27, S29, S30, S32, S33, and S136, Hot End Bottle Treatment, has been amended. Parts of previous condition 8395 that were mistakenly dropped are being reinstated. These are the standard requirements for abatement by the abatement device, the requirement to monitor pressure drop with

- a manometer, and the requirement for annual baghouse inspection. The pressure drop range for the manometer had already been determined.
- Part 2 of Condition 23142, which contains the emission limits, has been split into two parts. The first part contains the federally enforceable PM and VOC limits. The second part contains the non-federally enforceable HCl and NH<sub>3</sub> limits. The basis for the second part has been changed to “Regulation 2, Rule 5.”
  - A requirement for performing an annual test using a tracer has been added as part 10 of Condition 23142. In this test, a light-scattering tracer is released upstream of the baghouse. An ultraviolet leak detection instrument is placed downstream to detect the tracer. If any tracer is detected, the owner/operator will take correction action to fix the baghouse.
  - S63, Mold Repair Shop Cold Cleaner, has been removed.
  - S67, Mold Repair Coating Oven
    - The description of S67, Mold Repair Coating Oven, has been corrected to “Mold Repair Spray Booth.”
    - Regulation 8, Rule 2, has been deleted from the requirements for S67 because the coating is graphite, not a VOC coating.
  - Sources S76, S77, S79 to S81, S83, S84, S135, Forming Machines
    - Sources S76, S77, S79 to S81, S83, S84, S135, Forming Machines, have a new table in Section IV because they have different requirements than S39, Raw material unloading station, and S57, Ecology cullet elevator.
    - BAAQMD Regulation 8, Rule 4, was added to the applicable requirements for Sources S76, S77, S79 to S81, S83, S84, and S135, Forming Machines. The facility uses a heavy crude oil product as a mold release in the forming machines. Coating the inside of the forming machines prevents the glass from sticking to the molds. Therefore, each forming machine is subject to the limit of 5 tons per year of organic compound emissions. The sources are not subject to the surface preparation standard of 0.42 lb VOC/gallon because surface preparation is defined in Section 8-4-220 as cleaning, and the mold release is not functioning as cleaning.
    - S81, Forming Machine, has been removed.
  - Sources S130-S133, Engines
    - The parametric monitoring requirements in BAAQMD Regulation 1 and SIP Regulation 1 were added because the use of fuel meters and hours of operation meters is parametric monitoring.
    - The non-federally enforceable requirements of the California Air Toxics Control Measure for Stationary Compression Ignition Engines were added for S131-S133, Emergency Standby Diesel Engines.
    - Regulation 9-1-304 was deleted from the requirements for S130, Engine, because it only applies to sources that burn liquid or solid fuel.
    - The requirements of BAAQMD Regulation 9, Rule 8, NO<sub>x</sub> and CO from Stationary Internal Combustion Engines, were updated.
    - Condition 22050 for sources S131-S133 was replaced by Condition 22820. See discussion in Section C.VI.

## **V. Schedule of Compliance**

A schedule of compliance is required in all Title V permits pursuant to BAAQMD Regulation 2-6-409.10 which provides that a major facility review permit shall contain the following information and provisions:

“409.10 A schedule of compliance containing the following elements:

- 10.1 A statement that the facility shall continue to comply with all applicable requirements with which it is currently in compliance;
- 10.2 A statement that the facility shall meet all applicable requirements on a timely basis as requirements become effective during the permit term; and
- 10.3 If the facility is out of compliance with an applicable requirement at the time of issuance, revision, or reopening, the schedule of compliance shall contain a plan by which the facility will achieve compliance. The plan shall contain deadlines for each item in the plan. The schedule of compliance shall also contain a requirement for submission of progress reports by the facility at least every six months. The progress reports shall contain the dates by which each item in the plan was achieved and an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.”

Since the District has not determined that the facility is out of compliance with an applicable requirement, the schedule of compliance for this permit contains only sections 2-6-409.10.1 and 2-6-409.10.2.

## **VI. Permit Conditions**

During the Title V permit development, the District has reviewed the existing permit conditions, deleted the obsolete conditions, and, as appropriate, revised the conditions for clarity and enforceability. Each permit condition is identified with a unique numerical identifier, up to five digits.

When necessary to meet Title V requirements, additional monitoring, recordkeeping, or reporting requirements have been added to the permit.

All changes to existing permit conditions are clearly shown in “strike-out/underline” format in the proposed permit. When the permit is issued, all “strike-out” language will be deleted and all “underline” language will be retained, subject to consideration of comments received.

The existing permit conditions are derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). Permit conditions may also be imposed or revised as part of the annual review of the facility by the District pursuant to California Health and Safety Code (H&SC) § 42301(e), through a variance pursuant to H&SC § 42350 et seq., an order of abatement pursuant to H&SC § 42450 et seq., or as an administrative revision initiated by District staff. After issuance of the Title V permit, permit conditions will be revised using the procedures in Regulation 2, Rule 6, Major Facility Review.

The regulatory basis is listed following each condition. The regulatory basis may be a rule or regulation. The District is also using the following terms for regulatory basis:

- BACT: This term is used for a condition imposed by the Air Pollution Control Officer (APCO) to ensure compliance with the Best Available Control Technology in Regulation 2-2-301.
- Cumulative Increase: This term is used for a condition imposed by the APCO which limits a source's operation to the operation described in the permit application pursuant to BAAQMD Regulation 2-1-403.
- Offsets: This term is used for a condition imposed by the APCO to ensure compliance with the use of offsets for the permitting of a source or with the banking of emissions from a source pursuant to Regulation 2, Rules 2 and 4.
- PSD: This term is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit issued pursuant to Regulation 2, Rule 2.
- TRMP: This term is used for a condition imposed by the APCO to ensure compliance with limits that arise from the District's Toxic Risk Management Policy.

All changes to existing permit conditions are clearly shown in "strike-out/underline" format in the proposed permit. When the permit is issued, all "strike-out" language will be deleted and all "underline" language will be retained, subject to consideration of comments received.

Additional monitoring has been added, where appropriate, to assure compliance with the applicable requirements.

#### Changes in this action

BAAQMD Regulation 6, Particulate Matter and Visible Emissions, was renumbered to Regulation 6, Rule 1, and was renamed as "Particulate Matter, General Requirements.

SIP Regulation 6, Particulate Matter and Visible Emissions, was added because the District's particulate regulation was renumbered and renamed and is no longer in the SIP (State Implementation Plan).

Condition 11930 was amended to add monthly SO<sub>2</sub> monitoring for Sources S10 and S11, Glass Melting Furnaces.

Condition 11931 was amended to add monthly SO<sub>2</sub> monitoring for Source S12, Glass Melting Furnace.

Condition 15855 was amended to delete weekly visible emissions monitoring for S76, S77, S79-S81, S83, S84, and S135, Forming Machines because these sources exhaust within the building, so no visible emissions monitoring is feasible or required.

The following sources were deleted from the description of Condition 15855 because the condition no longer has requirements for these sources: S11 and S12, Glass Melting Furnaces, S24, S25, S27, S30, S31, S32, S33, Hot End Bottle Surface Treatment, S41, S42, Batch Mixers, S48, Lime Storage Bins, S50, Soda Ash Storage Bins, S52, Sand Storage Bins, and S58, Salt Cake Storage Area.

The name of S67 was corrected in Condition 15855 from “Mold Repair Coating Oven” to Mold Repair Spray Booth.”

The following sources were deleted from the description of Condition 16591 because the condition no longer has requirements for these sources: S43, Cullet Crusher, and S44, Sand Elevator.

Condition 20003 was amended to add monthly CO monitoring for Source S12, Glass Melting Furnace.

Condition 21614 was amended to add monthly CO monitoring for Source S11, Glass Melting Furnace.

Condition 22050 for Natural Gas Emergency Generator S130 has been amended. The provisions regarding diesel fuel have been deleted because the engine is not fired on diesel. The number of hours that it is allowed to run for reliability-related activities has been lowered to 50 hour/year, in accordance with the recent amendments to Regulation 9, Rule 8, Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines.

Condition 22050 for Diesel Emergency Generators S131, S132, and S133 has been replaced with new standard condition 22820. This condition contains the CARB ATCM requirements that were promulgated in 2007.

Condition 23142 for Sources S25, S27, S29, S30, S32, and S33, Hot End Bottle Treatment, has been amended. Parts of previous condition 8395 that were mistakenly dropped are being reinstated. These are the standard requirements for abatement by the abatement device, the requirement to monitor pressure drop with a manometer, and the requirement for annual baghouse inspection. The pressure drop range for the manometer had already been determined.

Part 2, which contains the emission limits, has been split into two parts. The first part contains the federally enforceable PM and VOC limits. The second part contains the non-federally enforceable HCl and NH3 limits. The basis for the second part has been changed to “Regulation 2, Rule 5.”

A requirement for performing an annual test using a tracer has been added as part 10 of the condition. In this test, a light-scattering tracer is released upstream of the baghouse. An instrument is placed downstream to detect the tracer. If any tracer is detected, the owner/operator will take corrective action to fix the baghouse.

## **VII. Applicable Limits and Compliance Monitoring Requirements**

This section of the permit is a summary of numerical limits and related monitoring requirements for each source. The summary includes a citation for each monitoring requirement, frequency of monitoring, and type of monitoring. All applicable requirements for monitoring are contained in Sections IV, Source-Specific Applicable Requirements, and VI, Permit Conditions, of the permit.

The District has reviewed all monitoring and has determined that much of the existing monitoring is adequate. Several improvements have been made based on an analysis of the

results of existing monitoring . Additional monitoring was added for CO at S11 and S12, Glass Melting Furnaces; SO2 at S10, S11, and S12, Glass Melting Furnaces, and PM and HCl at S25, S27, S29, S30, S32, S33 and S136, Hot End Bottle Surface Treatment. The details are discussed below.

The District now finds that the monitoring as proposed is adequate.

Following is an analysis of the limits and associated monitoring. The tables are sorted by the Emission Limit Citation.

PM Sources

<b>S# and Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S10, S11, S12, Glass Furnaces	BAAQMD Regulation 6-1-301 and SIP Regulation 6-301	Ringelmann 1.0	Continuous opacity monitors
S25, S27, S29, S30, , S32, S33 and S136, Hot End Bottle Surface Treatment	BAAQMD Regulation 6-1-301 and SIP Regulation 6-301	Ringelmann 1.0	None
S39, Unloading Station	BAAQMD Regulation 6-1-301 and SIP Regulation 6-301	Ringelmann 1.0	Weekly visible emission monitoring
S41 and S42, Mixers, S48, S50, S52, and S56, Bins, S58, Salt Cake Storage Area	BAAQMD Regulation 6-1-301 and SIP Regulation 6-301	Ringelmann 1.0	Pressure drop monitoring , annual inspection
S43 AND S44, Cullet Crusher and Sand Elevator	BAAQMD Regulation 6-1-301 and SIP Regulation 6-301	Ringelmann 1.0	None
S57, Cullet Elevator	BAAQMD Regulation 6-1-301 and SIP Regulation 6-301	Ringelmann 1.0	Weekly visible emission monitoring
S67, Mold Repair Spray Booth	BAAQMD Regulation 6-1-301 and SIP Regulation 6-301	Ringelmann 1.0	Weekly visible emission monitoring
S76, S77, S79-S81, S83, S84, and S135, Forming Machines	BAAQMD Regulation 6-1-301 and SIP Regulation 6-301	Ringelmann 1.0	None
S97, Baler	BAAQMD Regulation 6-1-301 and SIP Regulation 6-301	Ringelmann 1.0	Weekly visible emission monitoring
S10, S11, S12, Glass Furnaces	BAAQMD Regulation 6-1-302 and SIP Regulation 6-302	20% Opacity	Continuous opacity monitors

PM Sources

<b>S# and Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S130, Natural Gas Emergency Generator	BAAQMD Regulation 6-1-303 and SIP Regulation 6-303	Ringelmann 2.0	None
S131-S132, Diesel Emergency Generators	BAAQMD Regulation 6-1-303 and SIP Regulation 6-303	Ringelmann 2.0	None
S10, S11, S12, Glass Furnaces	BAAQMD Regulation 6-1-310 and SIP Regulation 6-310	0.15 gr/dscf (filterable particulate)	Annual source test
S25, S27, S29, S30, , S32, S33 and S136, Hot End Bottle Surface Treatment	BAAQMD Regulation 6-1-310 and SIP Regulation 6-310	0.15 gr/dscf (filterable particulate)	Source test every five years; Pressure drop monitoring
S41 and S42, Mixers, S48, S50, S52, and S56, Bins, S58, Salt Cake Storage Area	BAAQMD Regulation 6-1-310 and SIP Regulation 6-310	0.15 gr/dscf (filterable particulate)	Pressure drop monitoring , annual inspection
S43 AND S44, Cullet Crusher and Sand Elevator	BAAQMD Regulation 6-1-310 and SIP Regulation 6-310	0.15 gr/dscf (filterable particulate)	None
S57, Cullet Elevator,	BAAQMD Regulation 6-1-310 and SIP Regulation 6-310	0.15 gr/dscf (filterable particulate)	Weekly visible emission monitoring
S67, Mold Repair Spray Booth	BAAQMD Regulation 6-1-310 and SIP Regulation 6-310	0.15 gr/dscf (filterable particulate)	Weekly visible emission monitoring
S97, Baler	BAAQMD Regulation 6-1-310 and SIP Regulation 6-310	0.15 gr/dscf (filterable particulate)	Visible emission monitoring
S130, Natural Gas Emergency Generator	BAAQMD Regulation 6-1-310 and SIP Regulation 6-310	0.15 gr/dscf (filterable particulate)	None
S131-S132, Diesel Emergency Generators	BAAQMD Regulation 6-1-310 and SIP Regulation 6-310	0.15 gr/dscf (filterable particulate)	None
S10, S11, S12, Glass Furnaces	BAAQMD Regulation 6-1-311 and SIP Regulation 6-311	4.10P <sup>0.67</sup> lb/hr, where P is process weight, ton/hr (filterable particulate)	Annual source test
S25, S27, S29, S30, , S32, S33 and S136, Hot End Bottle Surface Treatment	BAAQMD Regulation 6-1-311 and SIP Regulation 6-311	4.10P <sup>0.67</sup> lb/hr, where P is process weight, ton/hr (filterable particulate)	Pressure drop monitoring



PM Sources

<b>S# and Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S41 and S42, Mixers, S48, S50, S52, and S56, Bins, S58, Salt Cake Storage Area	BAAQMD Regulation 6-1-311 and SIP Regulation 6-311	4.10P <sup>0.67</sup> lb/hr, where P is process weight, ton/hr (filterable particulate)	Pressure drop monitoring , annual inspection
S43 and S44, Cullet Crusher and Sand Elevator	BAAQMD Regulation 6-1-311 and SIP Regulation 6-311	4.10P <sup>0.67</sup> lb/hr, where P is process weight, ton/hr (filterable particulate)	None
S57, Cullet Elevator,	BAAQMD Regulation 6-1-311 and SIP Regulation 6-311	4.10P <sup>0.67</sup> lb/hr, where P is process weight, ton/hr (filterable particulate)	Visible emission monitoring
S97, Baler	BAAQMD Regulation 6-1-311 and SIP Regulation 6-311	4.10P <sup>0.67</sup> lb/hr, where P is process weight, ton/hr (filterable particulate)	Visible emission monitoring
S25, S27, S29, S30, , S32, S33 and S136, Hot End Bottle Surface Treatment	BAAQMD Condition #23142, part 2	0.55 lb PM/gal monobutyltin trichloride (MBTT)	Source test every five years, Annual tracer test Pressure drop monitoring

**PM Discussion:**

BAAQMD Regulation 6, Rule 1, Particulate Matter, General Requirements, and SIP Regulation 6, Particulate Matter and Visible Emissions.

Visible Emissions: BAAQMD Section 6-1-301, 6-1-302, 6-1-303; SIP Sections 6-301, 6-302, and 6-303:

Glass Furnaces

The glass furnaces, S10, S11, and S12, have historically been the source of visible emissions; therefore, the APCO has required the installation of opacity meters on the furnaces. These are considered to be appropriate and adequate monitoring for these sources. As discussed in Section C.IV of this statement of basis, S11 and S12 would likely be subject to 40 CFR 64, Compliance Assurance Monitoring, for the opacity limits, based on potential to emit and the presence of a control device, but are exempt because the permit already has a “continuous compliance determination method.”

S25, S27, S29, S30, S32, S33 and S136, Hot End Bottle Surface Treatment; S43, Cullet Crusher, and S44, Sand Elevator; S76, S77, S79-S81, S83, S84, and S135, Forming Machines

These sources exhaust within the building, so no visible emissions monitoring is feasible or required.

S41 and S42, Mixers; S48, S50, S52, S56, Bins; and S58, Salt Cake Storage Area

The monitoring for these sources is pressure drop monitoring and annual inspection of the dust collectors. If the pressure drop is within limits, the dust collectors should be operating properly opacity will be below Ringelmann 1.

S39, Unloading Station, S57, Cullet Elevator, S67, Mold Repair Spray Booth; and S97, Baler

The monitoring for these sources is weekly visible emissions monitoring, which is appropriate for opacity.

S130, Natural gas-fired Emergency Generator, and S131, S132, S132, Diesel-fired Emergency Generators

The standard for emergency engines is a high standard, Ringelmann 2.0, which is roughly equivalent to 40% opacity. The natural gas fired engines are not expected to have visible emissions, so no monitoring is necessary. Because the diesel emergency engines must run on diesel containing 15 ppm sulfur or less, the diesel engines are not expected to exceed the standard.

Moreover, in accordance with *EPA's June 24, 1999 agreement with CAPCOA and ARB titled "Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP"*, no visible emissions monitoring is required for emergency engines because they operate so infrequently and because they use low-sulfur fuel in California.

Particulate Weight Limitation

BAAQMD Regulation 6-310 limits filterable particulate (FP) emissions from any source to 0.15 grains per dry standard cubic foot (gr/dscf) of exhaust volume. Section 310.3 limits filterable particulate emissions from "heat transfer operations" to 0.15 gr/dscf @ 6% O<sub>2</sub>. These are the "grain loading" standards.

Glass Furnaces

Each glass furnace is tested annually, which is considered to be adequate monitoring because there is an adequate margin of compliance. The maximum FP measured in any source test was 0.059 gr/dscf, which is 40% of the standard.

S25, S27, S29, S30, S32, S33 and S136, Hot End Bottle Surface Treatment

Each source is relatively small. Condition 23142, part 2a, limits the PM emissions to less than 0.55 pounds per gallon of treatment. Each source is allowed 950 gallons per year, so the annual limit for each source is 522.5 pounds per source. Together, the seven sources are allowed to emit 3,660 lb PM/yr. Condition 23142 requires source testing every five years to ensure compliance with the pound per gallon limit. The requirement will be expanded so that testing for the grain-loading standard is also performed. Also, the baghouses for these sources have pressure drop monitoring, which should ensure good condition of the bags.

S57, Cullet Elevator , S67, Mold Repair Spray Booth; and S97, Baler

The monitoring for these sources is weekly visible emissions monitoring, which is adequate for small sources. Visible emissions below Ringelmann 1 mean that compliance with the grain loading standard is likely.

S41 and S42, Mixers; S48, S50, S52, S56, Bins; and S58, Salt Cake Storage Area

The monitoring for these sources is pressure drop monitoring and annual inspection of the dust collectors. If the pressure drop is within limits, the dust collectors should be operating properly and the grain loading will be below 0.15 grains/dscf.

S43, Cullet Crusher and S44, Sand Elevator

These sources have low emissions (2.1 and 8.3 lb particulate/day, respectively) and vent within the building, so no monitoring has been required.

S39, Unloading Station, S76, S77, S79-S81, S83, S84, and S135, Forming Machines

These sources have no stacks, so the grain loading standard does not apply.

S130, Natural Gas-fired Engine and S131, S132, S132, Diesel-fired Emergency Generators

Exceedances of the grain loading standards are normally not associated with combustion of gaseous fuels, such as natural gas. Source S130 burns natural gas exclusively, therefore, per the EPA's July 2001 agreement with CAPCOA and ARB entitled "CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources: Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", no monitoring is required to assure compliance with this limit for this source.

EPA has also agreed in the document cited in the paragraph above that emergency diesel fueled engines that run less than 200 hours per year for maintenance and testing do not require any additional monitoring for the grain loading standard.

*Allowable Rate of Emissions Based on Process Weight Rate*

Glass Furnaces

The monitoring for process weight for the glass furnaces is an annual source test, which is considered to be sufficient monitoring for the standard. The hourly capacity of S10, S11, and S12 is about 33,600 lb/hr, 29,800 lb/hr, and 26,200 lb/hr, respectively. Based on the equation in Section 6-1-311, the FP limit would be between 10.7 lb/hr and 12.5 lb/hr, depending on the weight in any particular hour at any of the furnaces. The highest FP emission rate at any of the furnaces during a source test has been 7.41 lb/hr. Comparing the highest hourly emissions to the lowest limit shows that the emissions are less than 70% of the limit, and that the margin of compliance is high.

S25, S27, S29, S30, S32, S33 and S136, Hot End Bottle Surface Treatment

No monitoring will be required for this standard for these sources because the margin of compliance is high. Each source is allowed to use 950 gallons of coating per year. At 0.55 pounds of PM per gallon, this means that 522.5 pounds of particulate per year may be

emitted. The process weight standard compares the amount of glass processed to the amount of particulate emitted. Assuming continuous operation, these sources together could emit 3,658 pounds of particulate per year or 0.418 pounds per hour or 0.06 pounds per hour per source. The glass throughput can be as high as 44.8 tons per hour, which is equivalent to 12,800 pounds of glass per hour at each hot end bottle surface treatment source. Regulation 6-1-311 would allow about 10 pounds per hour per source, so it can be seen that the margin of compliance is very high and monitoring is not required. Also, the baghouses for these sources have pressure drop monitoring, which should ensure good condition of the bags.

S57, Cullet Elevator,; and S97, Baler

The monitoring for these sources is weekly visible emissions monitoring, which is adequate for small sources.

S41 and S42, Mixers; S48, S50, S52, S56, Bins; and S58, Salt Cake Storage Area

The monitoring for these sources is pressure drop monitoring and annual inspections, which is adequate for small sources.

S43, Cullet Crusher and S44, Sand Elevator

These sources have low emissions (2.1 and 8.3 lb particulate/day, respectively) and vent within the building, so no monitoring has been required.

S39, Unloading Station, S76, S77, S79-S81, S83, S84, and S135, Forming Machines

These sources have no stacks, so the process weight standard does not apply.

S25, S27, S29, S30, S32, S33 and S136, Hot End Bottle Surface Treatment

Condition 23142, part 2: 0.55 lb PM/gal MBTT

The condition requires a source test every five years to determine compliance with the following limit: 0.55 lb PM/gal monobutyltin trichloride (MBTT). The source test showed compliance with the limit in 2007 and noncompliance in 2012. Following are the results of the source tests:

Date	PM emissions, lb/gal MBTT
2/13/07	0.06
1/27/12	1.37
2/22/12	0.18

Owens-Brockway determined that the non-complying test was caused by improper installation of bags in the baghouse after periodic maintenance. The test on February 22, 2012, was a follow-up test after corrective action was taken.

A source test frequency of every five years is too far apart to determine whether the sources are in compliance. The facility will perform a test with a tracer every year to determine whether the baghouse is functioning properly. In this test, a light-scattering tracer is released upstream of the baghouse. An instrument is placed downstream to detect the tracer. If any tracer is detected, the owner/operator will take correction action to fix the baghouse.

Following is an analysis of the NOx limits. The table is sorted by the Emission Limit Citation.

NOX Sources

S# and Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S10, S11, S12, Glass Furnaces	BAAQMD 9-12-301	5.5 lb/ton	CEM and annual source test
S10, Glass Furnace	BAAQMD Condition #11930, part 2	212.7 ton NOx in any consecutive 12 month period	CEM
S12, Glass Furnace	Condition #20003, part 5	4.0 lb/ton	CEM
S11, Glass Furnace	Condition #21614, part 5	4.0 lb/ton	CEM

**NOx Discussion:**

The glass furnaces are the only sources at the facility that have NOx limits. Use of continuous emission monitors is considered to be appropriate and adequate monitoring for the lb/ton and annual limits. The furnaces have flow meters as well as NOx concentration meters, so the hourly and annual mass emissions can be measured and compared against the limits.

Following is an analysis of the CO limits. The table is sorted by the Emission Limit Citation.

CO Sources

S# and Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S12, Glass Furnace	Condition #20003, part 6	0.70 lb/ton	Annual Source Test, monthly monitoring with portable monitor
S11, Glass Furnace	Condition #21614, part 6	0.70 lb/ton	Annual Source Test, monthly monitoring with portable monitor

**CO Discussion:**

All source tests for CO but one have a result of 0.3 lb CO/ton or less, which is an adequate margin of compliance. However, the source test of January 13, 2009, for S11 and S12 combined, had a result of 1.6 lb CO/ton.

Owens-Brockway will use a portable monitor for additional monthly monitoring for CO. The portable monitor will measure concentration. Using the glass pull rate and the flow rate that is already being measured at the stacks, the facility will estimate whether they are under the 0.70 lb/ton limit. If the estimate is less than 0.53 lb CO/ton (75% of the limit), the facility will not

need to consider any additional actions. If the estimate is more than 0.53 lb CO/ton, the facility will perform an additional source test for CO within a month of the reading.

Following is an analysis of the SO<sub>2</sub> limits. The table is sorted by the Emission Limit Citation.

**SO<sub>2</sub> Sources**

<b>S# and Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S10, S11, S12, Glass Furnaces	BAAQMD 9-1-301	Ground level concentrations of SO <sub>2</sub> shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours	None
S10, S11, S12, Glass Furnaces	BAAQMD 9-1-302	300 ppm (dry)	Annual Source Test, monthly monitoring with portable monitor
S130, Natural Gas Fired Engine	BAAQMD 9-1-302	300 ppm (dry)	None
S131, S132, S133, Diesel Engines	BAAQMD 9-1-304	Sulfur content of fuel < 0.5% by weight	None

**SO<sub>2</sub> Discussion:**

**BAAQMD Regulation 9-1-301**

Area monitoring to demonstrate compliance with the ground level SO<sub>2</sub> concentration requirements of Regulation 9-1-301 is at the discretion of the APCO (per BAAQMD Regulation 9-1-501). The emissions of the SO<sub>2</sub> emitting equipment at this facility (furnaces, engines) are expected to have a concentration of less than 300 ppm and therefore, the APCO has not required ground level monitoring.

**BAAQMD Regulation 9-1-302: 300 ppm SO<sub>2</sub> limit**

The glass furnaces, S10, S11, and S12, burn natural gas. If they were only natural gas combustion sources, the emissions from the furnaces would be expected to have very low concentrations of SO<sub>2</sub>, up to approximately 20 ppm. However, part of the recipe for glass is “salt cake,” which is an impure form of sodium sulfate. Salt cake contributes some SO<sub>2</sub> to the emissions.

The glass furnaces are tested annually to determine compliance with the 300 ppm limit in BAAQMD Regulation 9-1-302. The District has the results of 22 source tests. The results for S11 and S12 are all below 140 ppm SO<sub>2</sub>, which is an adequate margin of compliance with the limit. The results for S10 are higher and have exceeded 300 ppm on one occasion.

Owens-Brockway will use a portable monitor for additional monthly monitoring for SO<sub>2</sub>. The portable monitor will measure concentration directly. If the concentration measurement exceeds 90% (270 ppm), the facility will measure the SO<sub>2</sub> every day until SO<sub>2</sub> has been below 270 ppm for seven days. Then the facility will resume monthly monitoring. Concentrations over 300 ppm will be presumed to indicate non-compliance.

S130, Natural gas-fired engine, burns only natural gas and is expected to have emissions of no more than 20 ppm SO<sub>2</sub> at any time, so additional monitoring is not necessary to ensure compliance.

**BAAQMD Regulation 9-1-304: 0.5% S in liquid fuel**

S131, S132, and S133, Diesel-fired generators, are subject to the limit on sulfur concentration in liquid fuel. Since the diesel fuel sold in California now contains 15 ppm S (0.0015%), monitoring or recordkeeping for the sulfur content is no longer necessary. In this action, the District proposes to delete the recordkeeping requirement for sulfur in the diesel fuel.

Following is an analysis of the POC and VOC limits. The table is sorted by the Emission Limit Citation.

**POC/VOC Sources**

<b>S# and Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S25, S27, S29, S30, S32, S33 and S136, Hot End Bottle Surface Treatment	BAAQMD 8-4-302.2	VOC emissions < 5 tpy	Records of usage and source testing
S76, S77, S79-S81, S83, S84, and S135, Forming Machines	BAAQMD 8-4-302.2	VOC emissions < 5 tpy	Records of usage
S25, S27, S29, S30, , S32, S33 and S136, Hot End Bottle Surface Treatment	BAAQMD Condition #23142, part 2	0.62 lb POC/gal monobutyltin trichloride (MBTT)	Source tests every five years

**POC Discussion:**

**BAAQMD Regulation 8-4-302.2:**

Each hot end bottle surface treatment source, S25, S27, S29, S30, S32, S33, and S136, is subject to the 5 tpy VOC limitation in BAAQMD Regulation 8-4-302.2. Compliance is determined by source test because the VOC is generated as a breakdown product when the coating breaks down on the surface of the hot glass containers that are being coated.

Each gallon of coating is expected to generate 0.62 lb of VOC/gal or less, so each source is expected to emit no more than 0.3 tpy VOC.

Each forming machine source, S76, S77, S79-S81, S83, S84, and S135, is subject to the 5 tpy VOC limitation in BAAQMD Regulation 8-4-302.2. Compliance will be determined by recordkeeping because all of the VOC is considered to be emitted.

Condition 23152, part 2: 0.62 lb POC/gal coating, S25, S27, S29, S30, S32, S33, and S136: Compliance with this limit will be determined for all sources together at the outlet of the common abatement device, A1, Pulseflo Fabric Filter, Tin System, every 5 years. The initial source test on February 13, 2007, showed that the VOC emissions were about 0.14 lb/gal. The emissions of VOC during the initial source test were less than 25% of the limit, which is a good margin of compliance with the limit. Because the margin of compliance was high and each source is expected to emit about 0.3 tpy VOC, this is sufficient.

Following is an analysis of the lead monitoring.

**Lead Sources**

<b>S# and Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S10, S11, S12, Glass Furnaces	BAAQMD 11-1-301	15 lb/day	Annual source test
S10, S11, S12, Glass Furnaces	BAAQMD 11-1-302	GLC not to exceed 1.0 ug/m <sup>3</sup> , 24 hr. avg.	None

**Lead Discussion:**

11-1-301:

The glass furnaces, S10, S11, and S12, emit some lead and are subject to BAAQMD Regulation 11, Rule 1, Hazardous Pollutants, Lead. About 18 source tests for lead have been performed since 2004 at the furnaces. All of the results were under 1 lb lead per day per stack. Therefore, each source meets the standard of 15 lb lead/day. The results are shown in Appendix \_\_\_.

11-1-302

The glass furnaces are also subject to the ground level concentration standard of 1.0 microgram lead per cubic meter on a 24-hr average basis. An analysis of the lead concentrations was prepared by the District's Toxics Evaluation Section. The table below summarizes the results.

24-hour Average Concentration, µg/m <sup>3</sup> :	0.039
30-day Average Concentration, µg/m <sup>3</sup> :	0.017
Annual Average Concentration, µg/m <sup>3</sup> :	0.0087

The 24-hour average concentration is about two orders of magnitude below the standard. The furnaces comply with Sections 301 and 302 of the rule.



Following is an analysis of the metal HAP monitoring:

**Metal HAP Sources**

<b>S# and Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S10, S11, S12, Glass Furnaces	40 CFR 63.11451, Table 1	0.2 lb PM/ton glass pulled or 0.02 lb/ton metal HAP/ton glass pulled when using metal HAP	None

The limit was imposed by EPA as part of the NESHAPS for Glass Manufacturing that was promulgated on December 26, 2007. The NESHAPS imposes no additional monitoring if the initial test is acceptable. Monitoring or lack of monitoring pursuant to a NESHAPS that has been promulgated after 1990 is presumed to be acceptable.

Following is an analysis of the HCl monitoring:

**HCl Sources**

<b>S# and Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S25, S27, S29, S30, , S32, S33 and S136, Hot End Bottle Surface Treatment	BAAQMD condition 23142, part 2b	0.058 lb HCl/gal monobutyltin trichloride (MBTT)	Source test every 5 years, annual tracer test

**S25, S27, S29, S30, S32, S33 and S136, Hot End Bottle Surface Treatment**

Condition 23142, part 2b: 0.058 lb HCl/gal MBTT

The condition requires a source test every five years to determine compliance with the following limit: 0.058 lb HCl /gal monobutyltin trichloride (MBTT). The source test showed compliance with the limit in 2007 and noncompliance in 2012. Following are the results of the source tests:

Date	HCl emissions, lb/gal MBTT
2/13/07	0.004
1/27/12	1.301
2/22/12	0.052

Owens-Brockway determined that the non-complying test was caused by improper installation of bags in the baghouse after periodic maintenance. The test on February 22, 2012, was a follow-up test after corrective action was taken.

A source test frequency of every five years is too far apart to determine whether the sources are in compliance. The facility will perform a test with a tracer every year to determine whether the baghouse is functioning properly. In this test, a light-scattering tracer is released

upstream of the baghouse. An instrument is placed downstream to detect the tracer. If any tracer is detected, the owner/operator will take correction action to fix the baghouse.

This is the same test to determine whether the baghouse complies with the PM standard in Condition 23142, part 2. Because the baghouse controls both the HCl and PM, this is appropriate.

Following is an analysis of the NH3 monitoring:

**NH3 Sources**

<b>S# and Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S25, S27, S29, S30, , S32, S33 and S136, Hot End Bottle Surface Treatment	BAAQMD Condition #2314, part 2b	0.85 lb NH3/gal monobutyltin trichloride (MBTT)	Source test every 5 years

The source tests of 2007 and 2012 had results of 0.61 and 0.55 lb NH3/gal MBTT. The highest result is 72% of the limit. This is an adequate margin of compliance.

Other changes in this action.

BAAQMD Regulation 6, Particulate Matter and Visible Emissions, was renumbered to Regulation 6, Rule 1.

SIP Regulation 6, Particulate Matter and Visible Emissions, was added because the District’s particulate regulation was renumbered and renamed and is no longer in the SIP (State Implementation Plan).

The limit in the NESHAPS Subpart SSSSSS, National Emission Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources, were added to the tables for S11 and S12, Glass Melting Furnaces. This limit applies only when metal HAP, as defined by the standard, is used.

The particulate standards in BAAQMD Regulation 6 and SIP Regulation 6, Particulate Matter and Visible Emissions were added to Table VII-D for S25, S27, S29, S30, S32, S33 and S136, Hot End Bottle Surface Treatment.

Regulation 8, Rule 4, Miscellaneous Operations, was added to Table VII-D for sources S25, S27, S29, S30, S32, S33 and S136, Hot End Bottle Surface Treatment because the tin treatment now contains VOC.

Regulation 8, Rule 2, has been deleted from the requirements for S67 because the coating is graphite, not a VOC coating.

The limits on hours of operation in BAAQMD Regulation 9, Rule 8, NESHAPS Subpart ZZZZ, and the California ATCM have been added to Table L and M for the emergency engines.

### **VIII. Test Methods**

This section of the permit lists test methods that are associated with standards in District or other rules. It is included only for reference. In most cases, the test methods in the rules are source test methods that can be used to determine compliance but are not required on an ongoing basis. They are not applicable requirements.

If a rule or permit condition requires ongoing testing, the requirement will also appear in Section IV of the permit.

#### Other changes in this action.

BAAQMD Regulation 6, Particulate Matter and Visible Emissions, was renumbered to Regulation 6, Rule 1.

SIP Regulation 6, Particulate Matter and Visible Emissions, was added because the District's particulate regulation was renumbered and renamed and is no longer in the SIP (State Implementation Plan).

### **IX. Permit Shield:**

The District rules allow two types of permit shields. The permit shield types are defined as follows: (1) A provision in a major facility review permit explaining that specific federally enforceable regulations and standards do not apply to a source or group of sources, or (2) A provision in a major facility review permit explaining that specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting are subsumed because other applicable requirements for monitoring, recordkeeping, and reporting in the permit will assure compliance with all emission limits.

The second type of permit shield is allowed by EPA's White Paper 2 for Improved Implementation of the Part 70 Operating Permits Program. The District uses the second type of permit shield for all streamlining of monitoring, recordkeeping, and reporting requirements in Title V permits. The District's program does not allow other types of streamlining in Title V permits.

This facility has the first type of permit shield. The permit shield is shown below.

Rebricking at the facility is shielded from NSPS, Subpart CC, Standards of Performance for Glass Manufacturing Plants. The furnace is periodically rebricked, due to wear on the refractory. This is not considered to be a reconstruction for the purposes of NSPS, Subpart A, Section 60.15, Reconstruction, and Subpart CC, Standards of Performance for Glass Manufacturing Plants, per Section 60.292(c) of Subpart CC.

**Table IX A - 1**  
**Permit Shield for Non-applicable Requirements**  
**S10, S11, S12, GLASS MELTING FURNACES**

Citation	Title or Description (Reason not applicable)
40 CFR 60, Subpart CC	Standards of Performance for Glass Manufacturing Plants (Rebricking of the furnace, which occurs every several years, does not meet the definition of reconstruction under 40 CFR 60.15.)

**X. Revision History**

This section contains the details of issuance and revisions for each permit.

The following information will be added:

**Renewal of Title V Permit (Application: 22604) \_\_\_\_\_, 2013**

**XI. Glossary**

This section contains terms that may be unfamiliar to the general public or EPA.

Changes to permit:

A definition of “MBTT” (monobutyltin trichloride) has been added.

**D. Alternate Operating Scenarios:**

No alternate operating scenario has been requested for this facility.

**E. Compliance Status:**

A September 27, 2013 office memorandum from the Director of Compliance and Enforcement, to the Director of Permit Services, presents a review of the compliance record of Owens-Brockway (Site #: A0030). The Compliance and Enforcement Division staff has reviewed the records for Owens-Brockway for the period between March 21, 2006, through June 30, 2013. This review was initiated as part of the District evaluation of an application by Owens-Brockway for a Title V permit. During the period subject to review, activities known to the District include:

- There were seventeen (17) Notices of Violation issued during this review period.
- The District received fourteen air pollution complaints alleging Owens-Brockway as the source. Three were confirmed.

- The facility is not operating under a Variance or an Order of Abatement from the District Board.
- There were 165 notifications for Reportable Compliance Activities. In the case of this facility, these can be breakdown requests, indicated monitor excesses, and inoperative monitor reports.

The owner certified that all equipment was operating in compliance on September 15, 2010.

No ongoing non-compliance issues have been identified to date.

The District concludes that Owens-Brockway was in intermittent compliance during the time period under review. However, the facility has demonstrated no evidence of ongoing noncompliance and no recurring pattern of violations that would warrant consideration of a Title V permit compliance schedule for this facility.

F. Differences between the Application and the Proposed Permit:

*None*

## **APPENDIX A**

### **GLOSSARY**

**ACT**

Federal Clean Air Act

**APCO**

Air Pollution Control Officer

**ARB**

Air Resources Board

**BAAQMD**

Bay Area Air Quality Management District

**BACT**

Best Available Control Technology

**Basis**

The underlying authority which allows the District to impose requirements.

**CAA**

The federal Clean Air Act

**CAAQS**

California Ambient Air Quality Standards

**CAPCOA**

California Air Pollution Control Officers Association

**CEM**

Continuous Emission Monitor

**CEQA**

California Environmental Quality Act

**CFR**

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

**CO**

Carbon Monoxide

**Cumulative Increase**

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Cumulative increase is used to determine whether threshold-based requirements are triggered.

**District**

The Bay Area Air Quality Management District

**dscf**

Dry Standard Cubic Feet

**EPA**

The federal Environmental Protection Agency.

**Excluded**

Not subject to any District regulations.

**FDOC**

Final Determination of Compliance (FDOC), prepared pursuant to District Regulation 2, Rule 3, Power Plants.

**Federally Enforceable, FE**

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (MACT), and Part 72 (Permits Regulation, Acid Rain), including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

**FP**

Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

**HAP**

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by 40 CFR Part 63.

**HRSG**

Heat Recovery Steam Generator

**Major Facility**

A facility with potential emissions of: (1) at least 100 tons per year of regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants as determined by the EPA administrator.

**MFR**

Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

**MBTT**

**Monobutyltin trichloride**

**MOP**

The District's Manual of Procedures.

**NAAQS**

National Ambient Air Quality Standards

**NESHAPS**

National Emission Standards for Hazardous Air Pollutants. See in 40 CFR Parts 61 and 63.

**NMHC**

Non-methane Hydrocarbons (Same as NMOC)



**NMOC**

Non-methane Organic Compounds (Same as NMHC)

**NO<sub>x</sub>**

Oxides of nitrogen.

**NSPS**

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Federal Clean Air Act, and implemented by 40 CFR Part 60 and District Regulation 10.

**NSR**

New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

**Offset Requirement**

A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of POC, NO<sub>x</sub>, PM<sub>10</sub>, and SO<sub>2</sub>.

**Phase II Acid Rain Facility**

A facility that generates electricity for sale through fossil-fuel combustion and is not exempted by 40 CFR 72 from Titles IV and V of the Clean Air Act.

**POC**

Precursor Organic Compounds

**PM**

Particulate Matter

**PM<sub>10</sub>**

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

**PSD**

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of those air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

**PUC**

Public Utilities Commission (California)

**SIP**

State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

**SO<sub>2</sub>**

Sulfur dioxide

**THC**

Total Hydrocarbons (NMHC + Methane)

**Title V**

Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

**TOC**

Total Organic Compounds (NMOC + Methane, Same as THC)

**TPH**

Total Petroleum Hydrocarbons

**TRMP**

Toxic Risk Management Plan

**TSP**

Total Suspended Particulate

**VOC**

Volatile Organic Compounds

**Units of Measure:**

bhp	=	brake-horsepower
btu	=	British Thermal Unit
cfm	=	cubic feet per minute
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m <sup>2</sup>	=	square meter
min	=	minute
mm	=	million
MMbtu	=	million btu
MMcf	=	million cubic feet
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year

## **APPENDIX B**

### **BAAQMD Compliance Report**

**COMPLIANCE & ENFORCEMENT DIVISION**

**Inter-Office Memorandum**

**September 27, 2013**

TO: JIM KARAS – DIRECTOR OF ENGINEERING  
FROM: WAYNE KINO – DIRECTOR OF ENFORCEMENT  
SUBJECT: REVIEW OF COMPLIANCE RECORD OF:



**OWENS-BROCKWAY GLASS CONTAINER INC.- SITE # A0030**

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**Background**

This review was initiated as part of the District evaluation of an application by Owens-Brockway Glass Container Inc. for a Title V Permit Renewal. It is standard practice of the Compliance and Enforcement Division to undertake a compliance record review in advance of a renewal of a Title V Permit to Operate. The purpose of this review is to ensure that any non-compliance problems identified during the prior year permit term have been adequately addressed, or, if non-compliance persists, that a schedule of compliance is properly incorporated into the Title V permit compliance schedule. In addition, the review checks for patterns of recurring violation that may be addressed by additional permit terms. Finally, the review is intended to recommend, if necessary, any additional permit conditions and limitations to improve compliance.

**Compliance Review**

Compliance records were reviewed for the time period from March 21, 2006 through June 30, 2013. The results of this review are summarized as follows.

**1. Violation History**

Staff reviewed the Owens-Brockway Glass Container's Annual Compliance Certifications and found no ongoing non-compliance. A recurring pattern of violation of visible emissions from the glass melting furnaces has resulted in the issuance of 13 violations (a total of 17 issued). These violations have been addressed through increased maintenance and monitoring.

Permit Evaluation and Statement of Basis: Site A0030, Owens-Brockway Glass Container, Inc.  
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The District issued 17 Notice of Violation(s):

NOV#	Regulation	Date Occur	# of Days	Comments	Disposition
A46814	6-302	2/2/06	1	Opacity Excess	Resolution
A48086	6-302	12/23/06	1	Opacity Excess	Resolution
A48089	6-302	1/21/07	1	Opacity Excess	Resolution
A48093	6-302	7/8/07	1	Opacity Excess	Resolution
A48094	6-302	8/31/07	1	Opacity Excess	Resolution
A48095	6-302	10/31/07	1	Opacity Excess	Resolution
A48096	6-302	11/22/07	1	Opacity Excess	Resolution
A48780	2-6-307	1/13/09	1	Failed source test	Resolution
A48866	6-1-302	2/9/09	1	Opacity Excess	Resolution
A48867	6-1-302	2/16/09	1	Opacity Excess	Resolution
A48869	6-1-302	5/27/09	1	Opacity Excess	Resolution
A51237	6-1-302	11/7/11	1	Opacity Excess	Resolution
A51243	2-6-307	1/27/12	1	Failed source test	Pending
A51244	1-522.7	12/26/11	1	Late excess reported	Pending
A51245	6-1-302	4/10/12	1	Opacity Excess	Pending
A51246	1-522.7	12/23/11	1	Failure to report an excess	Pending
A51247	6-1-302	8/15/12	1	Opacity Excess	Pending

**NOTE:** There are 3 furnaces, "C" (S# 10), "D" (S# 11) and "E" (S# 12) that Owens-Brockway uses in a batch process to form molten glass from a mixture of sand, soda ash, limestone, salt cake and cullet (recycled crushed glass). On 8/15/10, furnace E was taken out of production, drained of molten glass and its monitor turned off. In November 2010, furnace D was drained, cooled, and idled. Demand for glass bottles subsequently picked up, and furnace D started

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back into production in July 2011. Prior to the startup of Furnace D, maintenance repairs were done including refractory replacement.

**2. Complaint History**

The District received fourteen (14) air pollution complaints alleging Owens-Brockway Glass Container Inc. as the source of which 3 were confirmed.

**3. Reportable Compliance Activity**

Reportable Compliance Activity (RCA), also known as "Episode" reporting, is the reporting of compliance activities involving a facility as outlined in District Regulations and State Law. Reporting covers breakdown requests, indicated monitor excesses, pressure relief device releases, inoperative monitor reports and flare monitoring.

Within the permit period, March 21, 2006 to June 30, 2013, the District received one hundred forty-five (165) notifications for RCA's. Twelve (13) NOV's were issued as a result of these RCA's.

The District received 165 notifications for Reportable Compliance Activities (RCA):

Episode	Date Occur	# of Days	Comments	Disposition
04T56 611	3/31/06	1	Opacity excess	No Action
04T66	4/4/06	1	Opacity excess	No Action
04V34	4/4/06	1	Opacity excess	No Action
04V40	6/11/06	1	Opacity excess	No Action
04V78	7/5/06	1	Opacity excess	No Action
04V87	7/8/06	1	Opacity excess	No Action
04W68	8/26/06	1	Opacity excess	No Action
04W71	9/7/06	1	Opacity excess	No Action
04W83	9/20/06	1	Opacity excess	No Action
04W94	9/26/06	1	Opacity excess	No Action
04X25	10/19/06	1	Opacity excess	No Action

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Episode	Date Occur	# of Days	Comments	Disposition
04X37	11/1/06	1	Opacity excess	No Action
04Y20 <i>GI0</i>	12/22/06	1	Opacity excess	NOV# A48086
04Y68	1/18/07	1	Opacity excess	No Action
04Y72	1/21/07	1	Opacity excess	No Action
04Y73	1/20/07	1	Opacity excess	No Action
04Y75 <i>GI0</i>	1/21/07	1	Opacity excess	NOV# A48089
04Y84	1/23/07	1	Opacity excess	No Action
04Y97	1/31/07	1	Opacity excess	No Action
04Z55	3/16/07	1	Opacity excess	No Action
05A48	5/19/07	1	Opacity excess	No Action
05A73	6/14/07	1	Opacity excess	No Action
05B10 <i>GI0</i>	7/8/07	1	Opacity excess	NOV# A48093
05B15	7/10/07	1	Opacity excess	No Action
05B17	7/11/07	1	Opacity excess	No Action
05B18	7/12/07	1	Opacity excess	No Action
05B39	7/31/07	1	Opacity excess	No Action
05B44	8/6/07	1	Opacity excess	No Action
05B75	8/22/07	1	Opacity excess	No Action
05B80	8/23/07	1	Opacity excess	No Action
05B81	8/27/07	1	Opacity excess	No Action
05B89	8/28/07	1	Opacity excess	No Action
05B91 <i>GI0</i>	8/31/07	1	Opacity excess	NOV# A48094

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Episode	Date Occur	# of Days	Comments	Disposition
05B96	9/3/07	1	Opacity excess	No Action
05C01	9/5/07	1	Opacity excess	No Action
05C05	9/14/07	1	Opacity excess	No Action
05C07	9/17/07	1	Opacity excess	No Action
05C55	10/31/07	1	Opacity excess	No Action
05C58	10/31/07	1	Opacity excess	NOV# A48095
05C76	11/22/07	1	Opacity excess	NOV# A48096
05C90	11/28/07	1	Opacity excess	No Action
05D23	12/17/07	1	Opacity excess	No Action
05D35	12/31/07	1	Opacity excess	No Action
05D61	1/13/08	1	Opacity excess	No Action
05D86	1/25/08	1	Opacity excess	No Action
05E17	2/11/08	1	Opacity excess	No Action
05E18	2/12/08	1	Opacity excess	No Action
05E25	2/13/08	1	Opacity excess	No Action
05F28	4/16/08	1	Opacity excess	No Action
05F66	5/13/08	1	Opacity excess	No Action
05F71	5/15/08	1	Opacity excess	No Action
05F73	5/16/08	1	Opacity excess	No Action
05F91	5/17/08	1	Opacity excess	No Action
05G10	6/5/08	1	Opacity excess	No Action
05G31	6/14/08	1	Opacity excess	No Action



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Episode	Date Occur	# of Days	Comments	Disposition
05G74	7/8/08	1	Opacity excess	No Action
05G80	7/10/08	1	Opacity excess	No Action
05H35	8/11/08	1	Opacity excess	No Action
05H36	8/11/08	1	Opacity excess	No Action
05H39	8/13/08	1	Opacity excess	No Action
05H60	8/28/08	1	Opacity excess	No Action
05J18	10/5/08	1	Opacity excess	No Action
05J24	10/7/08	1	Opacity excess	No Action
05K46	1/2/09	1	Opacity excess	No Action
05K89	1/23/09	1	Opacity excess	No Action
05L03 <i>5/10</i>	2/9/09	1	Opacity excess	NOV# A48867
05L08 <i>5/10</i>	2/16/09	1	Opacity excess	NOV# A48866
05L10	2/18/09	1	Opacity excess	No Action
05L11	2/20/09	1	Opacity excess	No Action
05L26	3/6/09	1	Opacity excess	No Action
05L29	3/7/09	1	Opacity excess	No Action
05L48	3/20/09	1	Opacity excess	No Action
05L66	4/3/09	1	Opacity excess	No Action
05M19	5/2/09	1	Opacity excess	No Action
05M29	5/13/09	1	Opacity excess	No Action
05M44	5/22/09	1	Opacity excess	No Action
05M46	5/22/09	1	Opacity excess	No Action

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Episode	Date Occur	# of Days	Comments	Disposition
05M47	5/21/09	1	Opacity excess	No Action
05M50	5/25/09	1	Opacity excess	No Action
05M51	5/25/09	1	Opacity excess	No Action
05M53 <sup>5/10</sup>	5/27/09	1	Opacity excess	NOV# A48869
05M99	6/26/09	1	Opacity excess	No Action
05N59	8/3/09	1	Opacity excess	No Action
05N80	8/22/09	1	Opacity excess	No Action
05N89	8/29/09	1	Opacity excess	No Action
05P25	9/14/09	1	Opacity excess	No Action
05Q24	11/13/09	1	Opacity excess	No Action
05Q46	11/23/09	1	Opacity excess	No Action
05Q53	11/27/09	1	Opacity excess	No Action
05Q69	12/1/09	1	Opacity excess	No Action
05R18	12/28/09	1	Opacity excess	No Action
05R21	12/28/09	1	Opacity excess	No Action
05R28	1/2/10	1	Opacity excess	No Action
05R33	1/6/10	1	Opacity excess	No Action
05S95	4/16/10	1	Opacity excess	No Action
05T01	4/19/10	1	Opacity excess	No Action
05T98	5/27/10	1	Opacity excess	No Action
05U37	6/11/10	1	Opacity excess	No Action
05U76	7/1/10	1	Opacity excess	No Action

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Episode	Date Occur	# of Days	Comments	Disposition
05V26	8/15/10	1	Opacity excess	No Action
05V28	8/14/10	1	Opacity excess	No Action
05X69	12/20/10	1	Opacity excess	No Action
06A54	7/5/11	1	Opacity excess	No Action
06B39	9/5/11	1	Opacity excess	No Action
06B40	9/6/11	1	Opacity excess	No Action
06B64	9/28/11	1	Opacity excess	No Action
06C23 <i>bill</i>	11/7/11	1	Opacity excess	NOV# A51237
06C45	11/27/11	1	Opacity excess	No Action
06C65	12/4/11	1	Opacity excess	No Action
06D16	12/22/11	1	Opacity excess	No Action
06D28	1/19/12	1	Opacity excess	No Action
06D34	1/22/12	1	Opacity excess	No Action
06D38	1/24/12	1	Opacity excess	No Action
06D46	1/31/12	1	Opacity excess	No Action
06D61 <i>5/13/12</i>	2/15/12	1	Opacity excess	NOV# A51243
06D97	3/4/12	1	Opacity excess	No Action
06E39	3/20/12	1	Opacity excess	No Action
06E68 <i>5/10/12</i>	4/10/12	1	Opacity excess	NOV# A51245
06F04	5/2/12	1	Opacity excess	No Action
06F13	5/5/12	1	Opacity excess	No Action
06F43	5/27/12	1	Opacity excess	No Action

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Episode	Date Occur	# of Days	Comments	Disposition
06F99	7/14/12	1	Opacity excess	No Action
06G14	7/25/12	1	Opacity excess	No Action
06G42 <i>510</i>	8/15/12	1	Opacity excess	NOV# A51247
06H19	10/7/12	1	Opacity excess	No Action
06J04	12/15/12	1	Opacity excess	No Action
06J07	12/18/12	1	Opacity excess	No Action
06J18	12/21/12	1	Opacity excess	No Action
06J20	12/23/12	1	Opacity excess	No Action
06J35	1/8/13	1	Opacity excess	No Action
06J56	1/31/13	1	Opacity excess	No Action
06J73	2/13/13	1	Opacity excess	No Action
06K34	5/3/13	1	Opacity excess	No Action
06K51	5/21/13	1	Opacity excess	No Action
06K53	5/22/13	1	Opacity excess	No Action
06K54	5/23/13	1	Opacity excess	No Action
06K56	5/27/13	1	Opacity excess	No Action

NOTE: The above episodes were reported as an indication of opacity excess and it is Technical Division that determines which ones are in violation.

**4. Enforcement Agreements, Variances, or Abatement Orders**

There were no enforcement agreements, variances or abatement orders for Owens-Brockway Glass Container Inc.

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### **Conclusion**

Following its review of all available facility and District compliance records from March 21, 2006 through June 30, 2013, the District's Compliance and Enforcement Division has determined that Owens-Brockway Container Inc. was in intermittent compliance from the initial permit period through the present. However, Owens-Brockway Container Inc. has demonstrated no evidence of ongoing noncompliance and no recurring pattern of violations that would warrant consideration of a Title V permit compliance schedule for this facility.

Based on this review and analysis of all the violations for this review period, the District has concluded that no changes in the permit terms are necessary beyond what is already contained in the facility's current Title V permit.

## **APPENDIX C**

### **Engineering Evaluations for Application No. 14034**

**Evaluation Report  
Owens-Brockway Glass Container, Plant #30  
Application Number 14034**

**Background**

Owens-Brockway Glass Container (OB) is proposing to modify its S-25, S-27, S-29, S-30, S-32, and S-33 Hot End Surface Treatment abated by A-1 Pulseflo Baghouse at its facility located in Oakland. These sources are changing from stannic chloride to monobutyltin trichloride (MBTT). These sources apply a coating on to the glass containers that helps prevent scratches. This new material contains organic compounds and will now have POC emissions associated with these sources. OB submitted source test data from another facility that uses this material in order to support POC and PM10 emissions factors. Ammonia injection is used prior to the Baghouse in order to neutralize the HCl emissions. OB will be required to conduct an initial source test for these sources to demonstrate compliance with the emissions factors used.

**Emission Calculations**

Each source will be permitted to use 950 gallons of MBTT per consecutive 12 month period. OB submitted emissions factors based on source test data that are acceptable as permit conditions. The PM10 emissions factor will be confirmed assuming both TSP and condensable PM since this is a less expensive test.

**S-25 Hot End Surface Treatment abated by A-1 Pulseflo Baghouse**

POC:  $950 \text{ gal/yr}(0.62 \text{ \#/gal}) = 589 \text{ \#/y}$

PM10:  $950 \text{ gal/y}(0.55 \text{ \#/gal}) = 522.5 \text{ \#/y}$

HCl:  $950 \text{ gal/y}(0.0581 \text{ \#/gal}) = 55.2 \text{ \#/y}$

**S-27 Hot End Surface Treatment abated by A-1 Pulseflo Baghouse**

POC:  $950 \text{ gal/yr}(0.62 \text{ \#/gal}) = 589 \text{ \#/y}$

PM10:  $950 \text{ gal/y}(0.55 \text{ \#/gal}) = 522.5 \text{ \#/y}$

HCl:  $950 \text{ gal/y}(0.0581 \text{ \#/gal}) = 55.2 \text{ \#/y}$

**S-29 Hot End Surface Treatment abated by A-1 Pulseflo Baghouse**

POC:  $950 \text{ gal/yr}(0.62 \text{ \#/gal}) = 589 \text{ \#/y}$

PM10:  $950 \text{ gal/y}(0.55 \text{ \#/gal}) = 522.5 \text{ \#/y}$

HCl:  $950 \text{ gal/y}(0.0581 \text{ \#/gal}) = 55.2 \text{ \#/y}$

**S-30 Hot End Surface Treatment abated by A-1 Pulseflo Baghouse**

POC:  $950 \text{ gal/yr}(0.62 \text{ \#/gal}) = 589 \text{ \#/y}$

PM10:  $950 \text{ gal/y}(0.55 \text{ \#/gal}) = 522.5 \text{ \#/y}$

HCl:  $950 \text{ gal/y}(0.0581 \text{ \#/gal}) = 55.2 \text{ \#/y}$

**S-32 Hot End Surface Treatment abated by A-1 Pulseflo Baghouse**

POC:  $950 \text{ gal/yr}(0.62 \text{ \#/gal}) = 589 \text{ \#/y}$

PM10:  $950 \text{ gal/y}(0.55 \text{ \#/gal}) = 522.5 \text{ \#/y}$

HCl:  $950 \text{ gal/y}(0.0581 \text{ \#/gal}) = 55.2 \text{ \#/y}$

**S-33 Hot End Surface Treatment abated by A-1 Pulseflo Baghouse**

POC:  $950 \text{ gal/yr}(0.62 \text{ \#/gal}) = 589 \text{ \#/y}$

PM10:  $950 \text{ gal/y}(0.55 \text{ \#/gal}) = 522.5 \text{ \#/y}$

HCl:  $950 \text{ gal/y}(0.0581 \text{ \#/gal}) = 55.2 \text{ \#/y}$

**A-1 Pulseflo Baghouse**

OB estimates that 0.79 #NH<sub>3</sub>/hr based on 100 ppm at 3000cfm.

$100 \text{ ppm}/10^6(3000 \text{ cfm})(60 \text{ m/h})(17 \text{ \#/mol})(\text{\#mol}/386 \text{ cf}) = 0.79 \text{ \#NH}_3/\text{hr}$

NH<sub>3</sub>:  $0.85 \text{ \#NH}_3/\text{hr}(24 \text{ hr/d})(365 \text{ d/y}) = 7446 \text{ \#/y}$

Total POC emissions from this application: 3534 #/y, 1.767 tpy

**Existing PM10 emissions from these sources**

The three year average usage of stannic chloride (SnCl<sub>4</sub>) is 85,331.67 pounds per year and OB submitted a controlled PM emissions factor of 0.0147 #PM/#SnCl<sub>4</sub>. This PM emissions factor conservatively assumes that 10% SnCl<sub>4</sub> reacts and that the baghouse has a 99% by weight abatement efficiency. The PM is considered to be PM10 for the purposes of this calculation. (see attached)

PM10:  $85,331.67 \text{ \#SnCl}_4/\text{y}(0.0147 \text{ \#PM}/\text{\#SnCl}_4) = 1254.4 \text{ \#PM}_{10}/\text{y}, 0.63 \text{ tpy}$



**Total PM10 emissions increase from this application**

First, estimate the PM10 increase from the new material,

PM10:  $522.5 \text{ \#/y}(6) = 3135 \text{ \#/y}$ , 1.57 tpy

then subtract the existing PM10 emissions:

PM10:  $1.57 \text{ tpy} - 0.63 \text{ tpy} = 0.94 \text{ tpy}$

**Plant Cumulative Increase**

POC: 1.767 tpy

PM10: 0.94 tpy

**Toxic Risk Screening Analysis**

<u>Toxic</u>	<u>Emission Rate(#/h, #/y)</u>	<u>Trigger Level (acute #/h, chronic #/y)</u>
HCl	0.04 #/h, 331.2 #/y	4.6 #/h, 3.5E2 #/y
NH3	0.85 #h, 7446 #/y	7.1 #/h, 7.7E3 #/y
MBTT		N/A

A risk analysis was not required for this application since the toxic emissions either did not exceed the respective trigger levels or have a trigger level.

**Statement of Compliance**

These sources will continue to comply with Regulation 6 sections 301, 305, 310, and 311, which require that emissions not exceed a Ringelmann 1.0 for more than 3 minutes per hour, visible emissions not cause a public nuisance, particulate emissions not exceed 0.15 gr/dscf, and that particulate emissions not exceed the emissions rate specified in Table 1.

These sources will comply with Regulation 8-4-302.1, which requires that VOC emissions not exceed 5 tons during any calendar year.

This application will not trigger BACT since individual source POC and PM10 emissions will each not exceed 10 pounds per highest day.

This application will not require POC emissions offsets since the facility's POC emissions are less than 10 tpy.

This application will not require PM10 emissions offsets per section 2-2-303 since the increase in PM10 emissions are less than 1.0 tpy.

This application is not subject to CEQA since the evaluation is a ministerial action conducted using the fixed standards and objective measurements outlined in the Permit Handbook Chapter 5.7. Therefore the applicant does not need to submit any CEQA-related information to deem the application complete.

This project is not within 1000 feet from the nearest school and is therefore not subject to the public notification requirements of Reg.2-2-412.

A risk analysis was not required for this application since the toxic emissions did not exceed the respective toxic trigger levels.

NSPS, NESHAPS, and PSD do not apply to this application.

**Recommendation**

Recommend that a Change of Conditions be granted for:

- S-25 Hot End Surface Treatment abated by A-1 Pulseflo Baghouse
- S-27 Hot End Surface Treatment abated by A-1 Pulseflo Baghouse
- S-29 Hot End Surface Treatment abated by A-1 Pulseflo Baghouse
- S-30 Hot End Surface Treatment abated by A-1 Pulseflo Baghouse
- S-32 Hot End Surface Treatment abated by A-1 Pulseflo Baghouse
- S-33 Hot End Surface Treatment abated by A-1 Pulseflo Baghouse

**Conditions**

1. The owner/operator of S-25, 27, 29, 30, 32, and S-33 shall not exceed 950 gallons of MBTT per source in any consecutive 12 month period. (cumulative increase)
2. The owner/operator of S-25, 27, 29, 30, 32, and S-33 shall not exceed the following emission rates: 0.62 #POC/gallon of MBTT, 0.55 #PM/gallon MBTT, 0.058 #HCl/gallon of MBTT, and 0.85 #NH3/hour. (cumulative increase/offsets)
3. The owner/operator of S-25, 27, 29, 30, 32, and S-33 shall conduct a district approved source test at the outlet of A-1 within 90 days after the switch to MBTT has been completed at all S-25, 27, 29, 30, 32, and S-33 and once every 5 years thereafter, in order to demonstrate compliance with condition #2. The results of the source test shall be submitted to district within 30 days of the test date. The source test for PM shall include both TSP and condensable PM emissions as determined by EPA Method 5/202. (cumulative increase)
4. The owner/operator of S-25, 27, 29, 30, 32, and S-33 shall maintain a district approved monthly log of all material throughput at each S-25, 27, 29, 30, 32, and S-33 and all source test results. This log shall be kept on site for at least 5 years from the date of entry and be made available to district staff upon request. (Recordkeeping)

by \_\_\_\_\_ date \_\_\_\_\_  
Gregory Solomon  
Senior Air Quality Engineer

## **APPENDIX D**

### **Engineering Evaluations for Application No. 15652**

**Evaluation Report**  
**Owens-Brockway Container, Inc.**  
**Plant # 30**  
**Application Number 15652**

**BACKGROUND**

Owens-Brockway Glass Container (OB) recently repaired its S-10 'C' Furnace at its facility located in Oakland. The repair work was initiated by the discovery of a hot spot on the floor of the furnace melter section. A similar problem in the past resulted in a catastrophic failure (losing entire floor) of the furnace. The plant sprayed water to cool the furnace bottom until the repair could be performed. Additional work, in addition to the furnace floor repair, was performed while the furnace was cold beginning on December 22, 2006. OB has submitted an itemized list of work scheduled during the shutdown (see 'Scope of Work' in application file) and also a list of additional work not originally anticipated (see Scope of Work – Discovery in application file).

There were two repairs undertaken as a result of discovery during the furnace repair in which non-identical refractory was used as a replacement. First, the charger wall was found to be leaning and in need of immediate repair. However, the existing mantle blocks made of castable AZS refractory were not in stock. The lead time to get these blocks is several weeks. Instead, the plant bonded AZS pieces to form the mantle blocks. The old and new charger wall configurations can be compared on drawing G-3603. Second, the cover blocks for the refiners were replaced with non-identical blocks. The replacement blocks were in the plant inventory and differ from existing ones with the elimination of the side exhaust holes (see sketches 10 & 11).

Generally, refractory in fired furnaces are operated at high temperatures that cause wear on the lining over time, eventually requiring replacement. The replacement of worn refractory does not normally change the heat release or heat output characteristics of the furnace. Thus, unless the firebox configuration is altered, combustion emissions do not increase from a refractory replacement. The repair project reviewed under this application is not expected to increase emissions at S10. The glass furnaces at OB need to be extensively rebricked (replacement of refractory) approximately every ten years. S10 was previously rebuilt in 1998 and is scheduled for the next rebuild in 2009. The interim repair performed did not extend the rebricking schedule. Therefore this repair project is not deemed a new or modified source pursuant to regulations 2-1-232 and 234, respectively. Instead, this repair project is deemed an alteration pursuant to Regulation 2-1-233.

This Permit to Operate will include only the work specified and if more work is required another application will be required. OB claims that this repaired unit's emissions will not exceed the existing unit's emissions. This source is equipped with both NO<sub>x</sub> and O<sub>2</sub> CEMs to demonstrate compliance with both a NO<sub>x</sub> emission rate and annual emission limit.

#### **EMISSION CALCULATIONS**

No emission increases are expected as a result of this application.

#### **PLANT CUMULATIVE INCREASE:**

Emissions are not expected to increase as a result of this application.

#### **TOXIC RISK SCREENING ANALYSIS**

A risk analysis was not required for this application since the emissions are not expected to increase.

#### **STATEMENT OF COMPLIANCE**

The S-10 'C' Furnace will comply with Regulation 9-12-301, which requires that NOx emissions not exceed 5.5 #/ton pulled.

This application will not trigger BACT since this repair will not result in an increase in emissions.

This application will not require offsets since the facility's emissions are not expected to increase as a result of this application.

The project is categorically exempt from CEQA under Regulation 2-1-312.6, which exempts applications exclusively for repair, maintenance or minor alteration of existing facilities, equipment or sources involving negligible or no expansion of use beyond that previously existing.

This project is not within 1000 feet from the nearest school and is therefore not subject to the public notification requirements of Reg. 2-2-412.

A risk analysis was not required for this application since the toxic emissions are not expected to increase.

NSPS, NESHAPS, and PSD do not apply to this application.

#### **RECOMMENDATION**

Recommend that a Permit to Operate be granted for:

**S-10 Glass Melting Furnace C, 51 MMBtu/hr, Natural Gas Fired.**

**CONDITIONS**

No operating conditions are required since the repair work has already been completed as described in Documents #01010-F and #01010-F-Discovery. Furthermore, no new emissions limits will be imposed since NSR is not triggered. Compliance with applicable emission limits will be determined by CEM and annual source tests pursuant to Permit Condition #11930.

By   
Weyman Lee, Senior Air Quality Engineer

Date 1/17/07

## **APPENDIX E**

### **Engineering Evaluations for Application No. 17195**



**Evaluation Report**  
**Owens-Brockway Glass Container, Inc.**  
**Plant #30**  
**Application Number 17195**

**Background**

Owens-Brockway Glass Container (OB), a subsidiary of Owens-Illinois, is located in Oakland. The company manufactures glass beverage bottles of various sizes and colors. Recycled glass (cullet) is crushed and used to make new glass, although the company will use sand if insufficient quantities of recycled glass are available. Other raw materials used in the manufacturing process include soda ash and limestone.

The manufacturing process begins in a furnace that melts cullet, sand, soda ash, limestone, and other raw materials in a temperature range between 2,300 and 2,800° F. A Refiner distributes the molten glass to the hearth, which makes the temperature of the molten glass uniform. The molten glass is sheared and cut into uniform gobs and fall into forming machines that forms the molten gobs into the mold shape. Formed glass bottles are cooled rapidly to change phase from liquid to solid. The bottles are placed in an annealing lehr, where their temperature is raised close to the melting point and then gradually lowered again. This heat treatment eliminates the stress in the bottles or jars to make them stronger and shock resistant.

OB is proposing to modify Source S-10, Furnace C, to add a forming line. The new forming line replace the C-1 forming line that was taken out of service in 2000. The applicant stated that the C-1 forming line was dismantled and the parts have been removed from the Oakland site. The new forming line will be entirely new, and installed in the same location as C-1, but will not increase the capacity of the furnace since it is a replacement.

It should be noted the applicant has never submitted a requested to cancel the permits for the C-1 Forming Line and associated sources that include S-75 C-1 Forming Line, S-110 Annealing Lehr (exempt), S-24 and S-31 HEST sources, and S-120 Cold End Treatment (exempt). Consequently, the District has treated these sources as being current.

OB has submitted an application for altering:

**S-10 Glass Melting Furnace C**

And Authorities to Construct/Permit to Operate:

**S-135 C-1A Forming Machine**  
**S-136 Hot End Bottle Surface Treatment**

S-135 Forming Machine will replace S-75, and S-136 HEST will replace S-24 and S-31.

**Emission Calculations**

No emission increases to the S-10 furnace are expected as a result of this application. The maximum throughput of 125,000 tons glass pulled and associated emissions will remain unchanged.

The emissions from the new C-135 C-1A Forming Machine is estimated using emissions factors from EPA AP-42 11.15 for Glass Manufacturing. Table 11.15-1 indicates that emissions of criteria pollutants are either negligible or non-detectable, except for organic emissions that originate from decorating processes. OB has stated that “there will be no decorating equipment for this production line (C-1A)” in an email date May 9, 2008. Therefore there will be not net increase in emissions charged to this source.

Source S-136 is an application of an exterior coating to the bottles to increase line mobility, reduce abrasions and to maintain the inherent strength of the glass containers. The calculation method will use same emission factors used for the other HEST operations at the plant (from Application #17195):

	<b>Emission Factor<sup>1</sup></b>	<b>Throughput</b>	<b>Emissions</b>	<b>Emissions</b>	<b>Emissions</b>
<b>Pollutant</b>	<b>(lb/gal)</b>	<b>(gal/yr)</b>	<b>(lb/day)</b>	<b>(lb/yr)</b>	<b>(ton/yr)</b>
POC	0.62	950	1.6	589	0.29
PM <sub>10</sub>	0.55	950	1.4	522.5	0.26
HCl	0.0581	950		55.195	0.03

<sup>1</sup> source test results indicate the following emission factors: POC 0.56 lb/gal, PM10 0.06 lb/gal, HCl 0.004 lb/gal

**Plant Cumulative Increase**

<b>Pollutant</b>	<b>Current</b>	<b>New</b>	<b>Total</b>
	<b>(ton/yr)</b>	<b>(ton/yr)</b>	<b>(ton/yr)</b>
POC	1.767	0.29	2.057
NO <sub>x</sub>	0	0	0
SO <sub>2</sub>	0	0	0
PM <sub>10</sub>	0.94	0.26	1.2
CO	0	0	0

### **Toxic Risk Screening Analysis**

Source S-136 is expected to run continuously year-round. Therefore HCl emissions rates are 6.3E-03 lb/hr and 5.5E01 lb/yr. The risk screening trigger levels are 4.6E00 lb/hr and 3.5E02. The expected HCl emissions from S-136 do not exceed their respective trigger levels, and is not subject to a risk screening analysis pursuant to Regulation 2-5.

### **Statement of Compliance**

The installation of the replacement forming line is not deemed a significant revision per section 2-6-226 for the purposes of Title V. The facility has submitted an application (#17196) to modify the Major Facility Permit.

The S-10 C Furnace is deemed an altered source pursuant to Regulation 2-1-233.2.

S-135 will comply with Regulation 6-1-301 for visible emissions and 6-1-305 for visible particles.

S-136 will comply with Regulation 8-4-302.1, which requires that VOC emissions not exceed 5 tons per calendar year.

The maximum daily POC and PM<sub>10</sub> emissions from S-136 are less than 10 pounds per day, and therefore will not trigger BACT in accordance with Regulation 2-2-301. Source S-135 emissions are negligible according to guidance given by the EPA AP-42 Chapter 11.

S-136 does not trigger the offsets requirement for POC and PM<sub>10</sub> emissions pursuant to Regulations 2-2-302 and 2-2-303.

The project is not subject to CEQA under Regulation 2-1-312.6 since the evaluation is a ministerial action conducted using fixed standards and objective measurements. Therefore the applicant does not need to submit CEQA related information to deem the application complete.

This project is not within 1000 feet from the nearest school and is therefore not subject to the public notification requirements of Reg.2-2-412.

A risk analysis was not required for this application since the toxic emissions did not exceed the respective trigger levels.

NSPS, NESHAPS, and PSD do not apply to this application.

## Recommendation

It is recommended that an Alteration be issued to Owens Brockway for:

### **S-10 Glass Melting Furnace C**

and an Authority to Construct be granted for:

### **S-135 C-1A Forming Machine S-136 Hot End Bottle Surface Treatment**

## Conditions

### Condition #15855 for S-135

S-39, Ray Material Unloading Station; S-57, Ecology Cullet Elevator; S-67, Mold Repair Coating Oven; S-76, S-77, S-79, S-80, S-81, S-83, S-84, S-135 Forming Machines

#### 1. deleted per Source Test recommendation

2. The owner/operator of S-39, S-57, S-67, S-76, S-77, S-79, S-80, S-81, S-83, S-84 and S-135 shall conduct weekly visible emissions monitoring in order to determine compliance with Regulations 6-301 using either District method or EPA Method 9, and shall not exceed a Ringelmann 1.0 for more than three minutes in any hour. Weekly records of visible emissions data shall be retained on site for at least five years from the date of entry and be made available to District staff upon request. (basis: Regulation 2-6-501)

### Condition #23142 for S-136

S-25, 27, 29, 30, 32, 33 and 136  
Applications Nos.14034 & 17195

1. The owner/operator of S-25, 27, 29, 30, 32, 33 and S-136 shall not exceed 950 gallons of MBTT per source in any consecutive 12 month period. (cumulative increase)

2. The owner/operator of S-25, 27, 29, 30, 32, 33 and S-136 shall not exceed the following emission rates: 0.62 #POC/gallon of MBTT, 0.55 #PM/gallon MBTT, 0.058 #HCl/gallon of MBTT, and 0.85 #NH3/hour. (cumulative increase/offsets)

3. The owner/operator of S-25, 27, 29, 30, 32, 33 and S-136 shall conduct a District approved source test at the outlet of A-1 that is downstream of S-25, 27, 29, 30, 32, 33 and S-136, once every 5 years after the initial source test conducted on February 13, 2007, in order to demonstrate compliance with condition #2. The results of the source test shall be submitted to District within 30 days of the test date. The source test for PM shall include both TSP and condensable PM emissions as determined by EPA Method 5/202. (cumulative increase)

4. The owner/operator of S-25, 27, 29, 30, 32, 33 and S-136 shall maintain a district approved monthly log of all material (MBTT) throughput for each HEST source, S-25, 27, 29, 30, 32, 33 and S-136, and of all source test results. This log shall be kept on site for at least 5 years from the date of entry and be made available to district staff upon request. (Recordkeeping)

by \_\_\_\_\_ date \_\_\_\_\_  
Weyman Lee  
Senior Air Quality Engineer

## **APPENDIX F**

### **Engineering Evaluations for Application No. 20634**

**Evaluation Report**  
**Owens-Brockway Glass Container, Plant #30**  
**Application Number 20634**

**Background**

Owens-Brockway Glass Container (OB) is proposing to add bottom cooling to the C-1 forehearth located at S-10 C Furnace. The new cooling system, which the applicant claims will result in more precise control of glass temperature as glass flows to the forming machines, requires installation of a new blower (located under the refiner) to provide cooling air. Cooling air holes will be drilled into the outer refractory of the forehearth, but will not penetrate into the chamber. Thus, the cooling is external, and the hot air will exhaust into the furnace building. Thus, no increase in emissions will result from the installation of the cooling system.

**Emission Calculations**

As mentioned in the Background Section, the cooling air will be circulated in the outer refractory of the forehearth only. The inner refractory will not be compromised so the cooling air will not mix with the molten glass that flows from the furnace, through the refiner and forehearth, into forming machines. As a result, there will be no net increase in emissions.

**Plant Cumulative Increase**

There will be no net increase in emissions.

**Toxic Risk Screening Analysis**

There will be no toxic emissions from the installation of the cooling system. Therefore, a risk analysis is not required for this application.

**Statement of Compliance**

Regulation 2-5: New Source Review of Toxic Air Contaminants

A risk analysis is not required for this application since the toxic emissions will not result from the installation of the cooling system.

Regulation 2-1-233: Alter

S-10 C Furnace is an altered source pursuant to Regulation 2-1-233.

Regulation 2, Rule 2: New Source Review

This project is not subject to New Source Review since S-10 is not considered a new or modified source because this project will not result in a net increase in emissions.

Regulation 9, Rule 12: Nitrogen Oxides from Glass Melting Furnaces

The S-10 C Furnace will be subject to and in compliance with Regulation 9-12-301, which requires that NO<sub>x</sub> emissions not exceed 5.5 pounds per ton of glass pulled.

Regulation 6, Rule 1: Particulate Matter

S-10 C Furnace will be subject to and in compliance with Regulation 6-1-301, 302, 305, 310, and 311 that limit opacity, visible emissions, particulate weight, and general operations.

Regulation 9, Rule 1: Sulfur Dioxide

S-10 C Furnace will be subject to and in compliance with Regulation 9-1-301 and 302, that limit SO<sub>2</sub> emissions.

Regulation 11, Rule 1: Lead

S-10 C Furnace will be subject to and in compliance with Regulation 11-1-301 and 302, that limit the daily ground level concentration of lead.

CEQA

This project is categorically exempt from CEQA under Regulation 2-1-312.6, which exempts “permit applications relating exclusively to the repair, maintenance or minor alteration of existing facilities, equipment or sources involving negligible or no expansion of use beyond that previously existing”.

School Notification

This project is not within 1000 feet from the nearest school and is therefore not subject to the public notification requirements of Reg.2-2-412.

Federal Requirements

NSPS, NESHAPS, and PSD do not apply to this application.



**Recommendation**

It is recommended that an Alteration be issued to Owens-Brockway for:

S-10      C Glass Furnace, with External Bottom Cooling System for  
C-1 Forehearth.

**Conditions**

Not required.

by \_\_\_\_\_ date \_\_\_\_\_  
Weyman Lee  
Senior Air Quality Engineer

## **APPENDIX G**

### **Engineering Evaluations for Application No. 23321**

**Evaluation Report**  
**Owens-Brockway Glass Container, Inc.**  
**Plant #30**  
**Application Number 23321**

**Background**

Owens-Brockway Glass Container (OB) is a glass bottle manufacturer located in Oakland. The plant produces glass containers of various shapes and sizes, of which approximately 90% are wine bottles. There are three furnaces, “C” (S-10), “D” (S-11), and “E” (S-12), that OB uses in a batch process to form molten glass from a mixture of sand, soda ash, salt cake, limestone and cullet (recycled crushed glass). S-11 “D” Furnace was drained, cooled, and idled in January 2011 due to a slow economy. Demand for glass bottles has subsequently picked up, and the company has made a decision to restart S-11.

OB identified a number of maintenance repairs to be performed on S-11 prior to restarting. Glass furnaces are subjected to high temperature operation that causes wear and tear on the lining over time. The replacement of worn refractory does not significantly change the heat absorption characteristics of the furnace unless the firebox configuration is altered. In fact, it is likely that the repairs will improve the heat retention and increase the efficiency of the furnace. According to OB, these repairs will not change the size or shape of the furnace, result in increased emissions, or change the heat generation or absorption. Thus, the repairs would not deem S-11 a new source pursuant to Regulation 2-1-232.6 that includes as a definition of a new source, the rebricking of glass melting furnaces where the changes in the furnace design result in a change to the heat generation or absorption. Instead, the maintenance repairs is considered an alteration pursuant to District Regulation 2-1-233.2.

This Permit to Operate will include only the repair work specified by OB (see Scope of Work – Furnace Refractory) and if more work is required another application will be required. OB claims that this repaired unit’s emissions will not exceed the existing unit’s emissions. This source is equipped with both NO<sub>x</sub> and O<sub>2</sub> CEMs to demonstrate compliance with both a NO<sub>x</sub> emission rate and annual emission limit.

OB installed an oxygen-enriched air system (OEAS) in 2002 to reduce NO<sub>x</sub> emissions. The OEAS utilizes a fuel staging technique in which combustion is initiated in a high temperature, fuel rich (reduced oxygen) primary combustion zone, and then completed downstream in a low temperature zone with a secondary oxidant such as air, oxygen-enriched air, or pure oxygen introduced through secondary air ports, thereby minimizing the formation of NO<sub>x</sub>. Furnace D is subject to and has demonstrated a NO<sub>x</sub> emissions rate less than 4.0 pounds per ton pulled.

The District considered lowering this limit to 3.5 pounds per ton pulled to ensure there would be no real increase in NO<sub>x</sub> emissions after the furnace is repaired. However, source test data (see Table 1 below) indicate that the furnace emitted 3.4 lb/ton on two tests and 3.6 lb/ton during one test. Moreover, OB stated that CEM results show several instances in which the

three hour average exceeded 3.8 lb/ton<sup>1</sup> at D furnace in 2010. The District determined that both Source Test and CEM data support keeping the NO<sub>x</sub> limit at the current 4.0 pounds per ton pulled.

	ST #	NOX (lb/ton)	CO (lb/ton)	TOC (lb/hr)	PM (gr/dscf)	SO2 (ppm)	Lead (lb/day)	Combined <sup>1</sup>
Limit		4	0.7		0.15	300	15	
Date								
2/25/2010	10210	3.6	0.07	0.3	0.032		0.59	
4/2/2009	OS-2811	3.4	0.14			134		
1/13/2009	9128				0.011		0.15	Y
1/13/2009	9120	2.4	1.6	0.3		138		Y
12/12/2008	OS-2630	3.1	0.08			95		
12/12/2008	OS-2632				0.022		0.912	Y
9/4/2007	OS-2029	3.4	0.06			137		
9/4/2007	OS-2031				0.03		0.702	Y
4/17/2007	7236	2.4	0.1	0.3	0.015	97	0.38	Y
9/21/2005	OS-1152				0.037		0.912	Y

<sup>1</sup> Combined results for both D & E furnaces.

OB will use replacement refractory of exact material and shape wherever possible. However, because some exact replacement parts are no longer available or because of time constraints, OB will in some instances use similar or same refractory material, and shape them to match the existing parts. Table 2 below identifies the repairs using non-exact parts.

OB submitted an addendum to replace the plug fan at D furnace prior to restart. The plug fan (forced draft) is used to push exhaust from the furnace through the stack, bypassing the ESP during maintenance periods.<sup>2</sup> The fan was removed and installed on the C furnace when the fan failed on that furnace. The replacement fan will use the existing motor and the capacity rating is the same (80,000 acfm).

<sup>1</sup> See Thomas Bost, Owens-Illinois, letter dated May 26, 2011 to Weyman Lee, BAAQMD re: Voluntary NO<sub>x</sub> Limit Reduction on D Glass Melting Furnace. Owens-Illinois stated there were 32 instances in which the CEM indicated a three-hour average emissions rate of 4.0 lb NO<sub>x</sub>/ton in 2010, and 84 days (of 314 operating days) in which CEM indicated at least one three-hour average emissions rate of 3.8 lb NO<sub>x</sub>/ton in 2010.

<sup>2</sup> Permit Condition #11930, Part 9 allows 144 hours of maintenance per year on D furnace. An induced draft fan pulls exhaust from the furnace through the ESP and out the stack during normal operation.

Permit Evaluation and Statement of Basis: Site A0030, Owens-Brockway Glass Container, Inc.  
3600 Alameda Avenue, Oakland, CA 94601

Table 2: Itemized Repairs utilizing non-exact parts						
No	Location	Description	Details	Refractory		Reference
				Existing	New	
1	Melter Tuckstones	Replace three doghouse corner blocks	Identical shape as existing.	Fused Cast AZS	Tank AZS	C-1603-L C-1603-R
2	Port Sills	Replace Port Sills	Identical shape as existing.	Fused Cast AZS	Tank AZS	G-3340-400-1, G-3340-400-2, G-3340-400-3
3a	Melter Doghouse	Replace left side entrance arch	7 piece assembly replaced by a single piece identical in shape.	Fused Cast AZS	Tank AZS	C-1856
3b	Melter Doghouse	Replace Mantle Block	Identical shape as existing.	Zimul AZS	Tank AZS	C-1602
4	Throat <sup>a</sup>	Replace throat covers and melter facers	10 piece assembly replaced by 5 piece assembly. The shape and dimensions of throat covers will remain the same, but melter facers will be 0.25" shorter.	SEFERO Chromic Oxide Blocks; Monfrax AZS Blocks	Monfrax AZS	Pg 3 cover letter
5	Melter Bottom	Replace refractory on the melter bottom as required in areas of metal penetration	In some cases, replacement refractory may not have exact dimensions, but identical shape and dimensions of floor will be retain.	Fused Cast AZS	Narco AZS; Fused Cast AZS	Pg 4 cover letter
6	Checkers	Replace top two layers of checkers	Identical shape as existing.	Narmag 98	Narmag VZ	Pg 4 cover letter
7	Refiner	Replace six baffle blocks	Identical shape as existing.	Narco Tamax	Tank AZS	C-1743
8	Forehearths	Replace one mantle block	Identical shape as existing.	Tank AZS	Tank AZS	C-1785; C-1872
9	Entrance Arch	Replace #4 port regenerator entrance	Identical shape as existing.	high MgO mat'l	Tank AZS	Pg 5 cover letter
10	Melter Breastwalls	Pack open joints with mortar	NA	NA	NA	NA
11	Refiner Electrode Overcoat	Overcoat electrode block if required	NA	NA	NA	NA
12	Refiner Upperstructure	Replace two assess covers only if damaged, otherwise will be reused	NA	NA	NA	NA
13	Fan					

<sup>a</sup> Although the melter facers are 0.25" shorter, the overall dimensions of the throat will not change.

### **Emission Calculations**

No emission increases are expected as a result of this application.

### **Plant Cumulative Increase**

Emissions are not expected to increase as a result of this application.

### **Toxic Risk Screening Analysis**

A risk analysis was not required for this application since the emissions are not expected to increase.

### **Statement of Compliance**

The S-11 D Furnace will comply with Regulation 9-12-301, which requires that NO<sub>x</sub> emissions not exceed 5.5 #/ton pulled.

This application will not trigger BACT since facility is accepting permit conditions that ensure that this repair will not result in an increase in emissions.

This application will not require offsets since the facility's emissions are not expected to increase as a result of this application.

The project is categorically exempt from CEQA under Regulation 2-1-312.6, which exempts applications exclusively for repair, maintenance or minor alteration of existing facilities, equipment or sources involving negligible or no expansion of use beyond that previously existing.

This project is not within 1000 feet from the nearest school and is therefore not subject to the public notification requirements of Reg.2-2-412.

A risk analysis was not required for this application since the toxic emissions are not expected to increase.

NSPS, NESHAPS, and PSD do not apply to this application.

**Recommendation**

Recommend that an Alteration be granted for:

- S-11 Glass Melting Furnace D, 52.5 MMBtu/h, equipped with OEAS and Individual Port Control, a rectangular refiner and two Forehearths

**Conditions**

The following conditions will only apply for the duration of the repair and maintenance of S-11 D Furnace, and will be deleted thereafter. The operation of S-11 will be subject to Permit Condition #20003.

1. The owner/operator of S-11 shall only perform the refractory repairs as described in the following Owens-Illinois documents:
  - a. Section No. 01010-R, Scope of Work, Furnace Refractory, dated May 9, 2011
  - b. Memo, Oakland 'D' Furnace – Restart Repair, dated May 2, 2011
2. The owner/operator shall not change the shape or size of any structure or part during the repair and maintenance of S-11.
3. The owner/operator shall use the existing motor with the replacement plug fan. The replacement plug fan shall have a capacity of 80,000 acfm.

by \_\_\_\_\_ date \_\_\_\_\_  
Weyman Lee  
Senior Air Quality Engineer

## **APPENDIX H**

### **Engineering Evaluations for Application No. 25187**



**ENGINEERING EVALUATION**  
**Owens-Brockway, Plant No. 30**  
**Application No. 25187**

**BACKGROUND**

Owens-Brockway has submitted an application for an alteration of the following source:  
S10, Glass Melting Furnace C

On December 18, 2012, the glass furnace suffered a glass leak, which caused an opening in the furnace floor. The glass was drained from the furnace and the facility inserted a brick plug to repair the furnace floor. The plug was sealed with a patching material made of alumina, zirconia, and silica.

In addition to damage to the furnace floor, the following components were damaged and replaced:

- One 15-hp furnace combustion air fan motor
- One furnace pressure transmitter
- The cables and electrodes for the electric boost system
- Three 1-hp motors on the cooling wind fans

All equipment was replaced with identical equipment, except for the furnace combustion air fan motor. The old one was a GE motor and the new one is a Baldor motor. However, the motors are functionally equivalent.

**EMISSIONS**

The equipment that was replaced is either identical or functionally equivalent. Therefore, the replacement will not cause an increase in emissions.

**PLANT CUMULATIVE INCREASE, OFFSETS**

The cumulative increase will not change. No offsets are required.

**TOXIC RISK SCREENING ANALYSIS**

The equipment that was replaced is either identical or functionally equivalent. Therefore, the replacement will not cause an increase in emissions. Since there is no increase in emissions, the replacement is not a modification and the alteration is not subject to BAAQMD Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants per Section 2-5-101.

**BACT**

The equipment that was replaced is either identical or functionally equivalent. Therefore, the replacement will not cause an increase in emissions. Since there is no

increase in emissions, the replacement is not a modification per BAAQMD Regulation 2-1-234. The source is not subject to BACT because the source is not new or modified.

#### STATEMENT OF COMPLIANCE

Regulation 6, Rule 1, Particulate Matter, General Requirements

Regulation 9, Rule 1, Sulfur Dioxide

Regulation 9, Rule 12, Nitrogen Oxides From Glass Melting Furnaces

Regulation 11, Rule 1, Lead

The alteration will not change the status of compliance with these standards.

#### CEQA

This application is not subject to CEQA because BAAQMD Regulation 2-1-312.6 exempts "Permit applications relating exclusively to the repair, maintenance or minor alteration of existing facilities, equipment or sources involving negligible or no expansion of use beyond that previously existing."

#### PSD

PSD is not triggered because there will be no emissions increase.

#### NSPS

This alteration is not subject to NSPS Subpart CC, Standards of Performance for Glass Manufacturing Plants, because it is not a modification or a reconstruction.

Section 60.14(a) defines a modification as "any physical or operational change to an existing facility which results in an increase in the emission rate..." There will be no increase in emissions.

Section 60.15(b) defines a reconstruction as the replacement of components such that the repairs exceed 50% of the value of building a new furnace. The cost of this repair is relatively minor.

#### NESHAPS, Subpart SSSSSS—National Emission Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources

S10 is not subject to the NESHAPS because clear glass is produced in this furnace. Per Section 63.11449(a)(2), the furnace must be charged with "compounds of one or more glass manufacturing metal HAP as raw materials." The metal HAP are defined by Section 63.11459 as compounds of arsenic, cadmium, chromium, lead, manganese, and nickel. The furnace is not charged with metal HAP when clear glass is made.

Public School, Schools

The facility is not within 1000 feet of a school and there will be no increase in toxic air contaminants, therefore, the application is not subject to public notification pursuant to BAAQMD Regulation 2-1-412, Public Notice, Schools.

Regulation 2, Rule 6, Major Facility Review

The facility is a major facility as defined by Section 2-6-212 of the rule and has a Major Facility Review permit. This alteration requires no revisions to the Major Facility Review permit, so it will not be processed as a revision. The Major Facility Review permit does not contain the details of the components of the equipment that was replaced.

The alteration is also not described as a significant revision defined by Section 2-6-215 as shown below:

- The incorporation of a change considered a major modification under 40 CFR Parts 51 (NSR) or 52 (PSD);
- The incorporation of a change considered a modification under 40 CFR Parts 60 (NSPS), 61 (NESHAPS), or Section 112 of the Clean Air Act (HAP);
- Any significant change or relaxation of any applicable monitoring, reporting or recordkeeping condition;
- The establishment of or change to a permit term or condition allowing a facility to avoid an applicable requirement, including:
  1. a federally enforceable emission limit assumed in order to avoid classification as a modification under any provision of Title I of the federal Clean Air Act, or
  2. an alternative hazardous air pollutant emission limit pursuant to Section 112(i)(5) of the Clean Air Act;
- The establishment of or change to a case-by-case determination of any emission limit or other standard;
- The establishment of or change to a facility-specific determination for ambient impacts, visibility analysis, or increment analysis on portable sources;  
or
- The incorporation of any requirement promulgated by the U. S. EPA under the authority of the Clean Air Act provided that three or more years remain on the permit term.

The alteration will be mentioned as one of the facility's applications in the Statement of Basis for the permit renewal, which is likely to be completed early in 2014.

## PERMIT CONDITIONS

The permit condition for S10 is being shown for information only. It is not being amended.

### **CONDITION #11930**

Plant 30, Sources S10 and S11, Glass Melting Furnaces

1. Total glass pulled at each S10 and S11 shall each not exceed 125,000 tons in any consecutive twelve-month period. (basis: emissions banking)
2. NOx Emissions from S10 shall not exceed 212.7 tons in any consecutive 12-month period. (basis: legal agreement)
3. By December 1, 2000, the owner/operator of S10 shall have installed and be operating a District-approved continuous emissions monitor (CEM) to measure the NOx emissions from S10, a District-approved flowmeter to measure the exhaust gas flowrate from S10, 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)
  - 4a. Plant shall maintain daily records of the amount of glass pulled at S10, 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 daily records of the amount of glass pulled at S11. 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)
  - 4c. The owner/operator of S10 and S11 shall maintain a district approved daily log of the glass pull-rate (in tons per calendar day) at each S10 and S11. The glass pull-rate shall be determined by the production rate (containers/minute), as reported on the computer control log at each setting, multiplied by the container specification weight (pounds) multiplied by the minutes of operation during each calendar day and then divided by 2000 pounds/ton. Any changes in either the container/container weight and production rate shall be clearly identified in the log. The measurement error shall not exceed 10% of measurement. This log shall be maintained on site for at least 5 years from the date of entry and be made available to district staff upon request. (basis: emissions banking)
5. The owner/operator of S10 and S11 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, 2-6-503)

6. The owner/operator of S10 and S11 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, 2-6-503)
7. The owner/operator of S10 and S11 shall conduct an annual District-approved source test at each furnace in order to demonstrate compliance with BAAQMD 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, 2-6-503)
8. The owner/operator of S10 and S11 shall maintain and operate continuous opacity monitors in accordance with the Manual of Procedures, Volume V. This condition does not apply to S11 during periods of maintenance of A9, not to exceed 144 hours in any consecutive 12-month period. (basis: Regulation 6-501)
- \*9. S11 shall be abated, at all times of operation by the properly maintained and properly operated A9 Electrostatic Precipitator. This condition does not apply during periods of maintenance of A9 not to exceed 144 hours in any consecutive 12-month period. (basis: Regulation 2-1-301)

### RECOMMENDATION

Issue a letter to Owens-Brockway determining that the following source has been altered, not modified:

**S10, Glass Melting Furnace C**

By: \_\_\_\_\_  
**Brenda Cabral**  
**Supervising Air Quality Engineer**

Date: \_\_\_\_\_

## **APPENDIX I**

### **Engineering Evaluations for Application No. 25540**

**ENGINEERING EVALUATION**  
**Owens-Brockway, Plant No. 30**  
**Application No. 25540**

BACKGROUND

Owens-Brockway has submitted an application for the following spare baghouse for Sources S25, S27, S29, S30, S32, S33 and S136, Hot End Surface Treatment:  
A25, Baghouse, Aeropulse, 5500 cfm

The above sources are currently abated by A1, Baghouse. Installation of a second baghouse will enable the source to continue operating during maintenance or when a baghouse is out of order. The baghouses are similar, but the old baghouse is rated at 4400 cfm and the new baghouse is rated at 5500 cfm.

EMISSIONS

The flow through the baghouse is 25% more than the flow through the new baghouse, so actual emissions may go up by 25%. However, each source is subject to a stringent limits of 950 gallons of coating (MBTT or monobutyl tin) and 0.55 lb PM/gallon of coating, which is equivalent to 522.5 lb PM/yr for each source. Permitted emissions will not go up.

PLANT CUMULATIVE INCREASE, OFFSETS

The cumulative increase will not change. No offsets are required.

TOXIC RISK SCREENING ANALYSIS

The emissions of toxic air contaminants were analyzed for this source in Application 14034. Staff concluded that the emissions of toxic air contaminants were not high enough to trigger the need for a toxic risk screen analysis. The trigger levels have not changed since the sources were evaluation in 2006 in Application 14034.

BACT

This application will not trigger BACT since individual source POC and PM10 emissions will each not exceed 10 pounds per highest day, per Application 14034.

## STATEMENT OF COMPLIANCE

### **Regulation 6, Rule 1, Particulate Matter, General Requirements**

A coating operation with a baghouse is expected to comply with the Ringelmann 1 opacity standard in Section 6-1-301, the visible particle requirement in Section 6-1-305, the 0.15 g/dscf grain loading standard in Section 6-1-310, and the process weight standard in Section 6-1-311. The highest source test result (test of 1/17/13) had results of 0.0089 gr/dscf and 1.37 lb PM/hr. This result did not comply with part 3 of Condition 23142, but did show compliance with all limits in Regulation 6, Rule 1. (Note: S1 was re-tested after repairs on 2/22/12 and was determined to be in compliance with part 3 of Condition 23142 after the repairs.)

### **Regulation 7, Odorous Substances**

S25, S27, S29, S30, S32, S33 and S136, Hot End Surface Treatment, emit ammonia, which is an odorous substance. However, Regulation 7 does not apply unless there have been ten or more complainants within a 10 day period. There have been no Notices of Violation for odor in the past five years, so for the purposes of this evaluation, it will be assumed that Regulation 7 does not apply to the facility.

### **Regulation 8, Rule 4, General Solvent and Surface Coating Operations**

Each source will comply with the 5 tpy limit for organics in Section 8-4-301.2 because each source has a throughput limit of 950 gal/yr of coating and a limit of 0.62 lb/gal, which is equivalent to 589 lb organics/yr or 0.295 tpy organics. All sources have shown that the sources are in compliance with the limit in the condition and therefore, the rule.

## CEQA

This application is considered to be ministerial under the District's Regulation 2-1-311 and therefore is not subject to CEQA review. The engineering review for this project requires only the application of standard permit conditions and standard emission factors in accordance with Permit Handbook Chapter 5.1.

## PSD

PSD is not triggered because the emissions increase is not significant.

## NSPS

There is no applicable NSPS.

## NESHAPS

There is no applicable NESHAPS for this source.

## Public School, Schools

The facility is not within 1000 feet of a school, therefore, the application is not subject to public notification pursuant to BAAQMD Regulation 2-1-412, Public Notice, Schools.

## Regulation 2, Rule 6, Major Facility Review

The facility is a major facility as defined by Section 2-6-212 of the rule and has a Major Facility Review permit. The addition of this baghouse is a minor revision as defined by Section 2-6-215 because it is not any of the following:



- The incorporation of a change considered a major modification under 40 CFR Parts 51 (NSR) or 52 (PSD);
- The incorporation of a change considered a modification under 40 CFR Parts 60 (NSPS), 61 (NESHAPS), or Section 112 of the Clean Air Act (HAP);
- Any significant change or relaxation of any applicable monitoring, reporting or recordkeeping condition;
- The establishment of or change to a permit term or condition allowing a facility to avoid an applicable requirement, including:
  - 4.1 a federally enforceable emission limit assumed in order to avoid classification as a modification under any provision of Title I of the federal Clean Air Act, or
  - 4.2 an alternative hazardous air pollutant emission limit pursuant to Section 112(i)(5) of the Clean Air Act;
- The establishment of or change to a case-by-case determination of any emission limit or other standard;
- The establishment of or change to a facility-specific determination for ambient impacts, visibility analysis, or increment analysis on portable sources; or
- The incorporation of any requirement promulgated by the U. S. EPA under the authority of the Clean Air Act provided that three or more years remain on the permit term.

The revision will be incorporated in the Major Facility Review permit at the same time that the permit Major Facility Review is renewed, which is expected to be at the end of 2013.

**Regulation 2-1-412.**

The facility is not within 1000 feet of a school and there is no increase in toxic air contaminants, therefore, the application is not subject to public notification pursuant to BAAQMD Regulation 2-1-412.

**PERMIT CONDITIONS**

Part 12 is a new condition that has been imposed to ensure that monitoring for particulate breakthrough occurs more than once every five years. The leak testing will be required annually.

**Condition #23142**

Sources S25, S27, S29, S30, S32, S33 and S136

Applications Nos. 14034, 17195, & 25540

1. Particulate matter emissions from sources S25, S27, S29, S30, S32, S33, and S136, Hot End Bottle Surface Treatment shall be routed under negative pressure to A1 or A25 for abatement at all times that any Hot End Bottle Surface Treatment source is operated and/or emits particulate matter emissions. (basis: cumulative increase)

2. The owner/operator of S25, S27, S29, S30, S32, S33 and S136 shall not exceed 950 gallons of monobutyltin trichloride (MBTT) per source in any consecutive 12 month period. (basis: cumulative increase, offsets)
3. The owner/operator of S25, S27, S29, S30, S32, S33 and S136 shall not exceed the following emission rates: 0.62 lb POC/gallon of MBTT, 0.55 lb PM/gallon MBTT. (basis: cumulative increase/offsets)
- \*4. The owner/operator of S25, S27, S29, S30, S32, S33 and S136 shall not exceed the following emission rates: 0.058 lb HCl/gallon of MBTT, and 0.85 lb NH<sub>3</sub>/hour. (basis: Regulation 2, Rule 5)
5. The owner/operator of S25, S27, S29, S30, S32, S33 and S136 shall conduct a District-approved source test at the outlet of A1 that is downstream of S25, S27, S29, S30, S32, S33 and S136 once every 5 years after the initial source test conducted on February 13, 2007, in order to demonstrate compliance with parts #3 and 4 of this condition, and Regulations 6-1-310 and 6-1-311. The owner/operator of A25, Baghouse, shall conduct a District-approved source test at the outlet of A25 that is downstream of S25, S27, S29, S30, S32, S33 and S136 within 60 days of startup and once every 5 years after the initial source test, in order to demonstrate compliance with parts #3 and 4 of this condition, and Regulations 6-1-310 and 6-1-311. Glass throughput through each source shall be estimated during the source tests. The results of the source tests shall be submitted to District within 30 days of the test date. The source tests for PM shall include both TSP and condensable PM emissions as determined by EPA Method 5/202. (basis: cumulative increase, 6-1-310, 6-1-311)
6. The owner/operator shall maintain District-approved manometers or other District-approved devices which measure the pressure drop across the A1 and A25 Baghouses. The pressure drop shall be maintained between 1.0 and 9.0 inches of water. (basis: cumulative increase)
7. The pressure drop across A1 and A25 shall be monitored at all times that the Hot End Bottle Surface Treatment sources are operated and recorded once a week to ascertain that the pressure drop is in the normal operating range, and the baghouses are in good operating condition. The records shall be kept on site for at least five years from the date of data entry and be made available to the District staff for inspection. (basis: Regulation 2-6-501)
8. The owner/operator of S25, S27, S29, S30, S32, S33 and S136 shall maintain a district approved monthly log of all material (MBTT) throughput for each HEST source, S25, S27, S29, S30, S32, S33 and S136, and of all source test results. This log shall be kept on site for at least 5 years from the date of entry and be made available to district staff upon request. (basis: cumulative increase)

9. The A1 and A25 Baghouses shall be inspected on an annual basis to ensure proper operation. Records of each annual inspection shall be kept on site for at least five years from the date of data entry and be made available to the District staff for inspection. (basis: Regulation 2-6-501)
  
10. The owner/operator shall perform a test using a tracer at A1 and A25 on an annual basis. A tracer will be released upstream of the baghouses. The owner/operator shall use an ultraviolet leak detection instrument to detect the tracer downstream of the baghouses. If any tracer is detected, the owner/operator will take corrective action to eliminate the leak and test again until no tracer is detected. (basis: Regulation 2-6-503)

RECOMMENDATION

Issue an Authority to Construct for:

A25, Baghouse abating S25, S27, S29, S30, S32, S33 and S136, Hot End  
Surface Treatment

By: \_\_\_\_\_  
**Brenda Cabral**  
**Supervising Air Quality Engineer**

Date: \_\_\_\_\_