



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY TIDEWATER REGIONAL OFFICE

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Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Maria R. Nold
Regional Director

June 29, 2015

Mr. Christopher Tonk
Plant Manager
Owens-Brockway Glass Container Inc.- Toano VA Facility
150 Industrial Boulevard
Toano, Virginia 23168

Location: James City County
Registration No.: 60923
ICIS Id. No.: 51-095-00022

Dear Mr. Tonk:

Attached is a permit to operate your glass container manufacturing facility pursuant to 9 VAC 5 Chapter 80 of the Virginia Regulations for the Control and Abatement of Air Pollution. This permit incorporates provisions from the permits dated March 17, 2014, and April 12, 2005.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

The Department of Environmental Quality (DEQ) deemed the application complete on April 14, 2015, and solicited written public comments by placing a newspaper advertisement in the Daily Press on Wednesday, May 13, 2015. The thirty-day comment period, provided by 9 VAC 5-80-270, expired on Friday, June 12, 2015 with no comments having been received in this office.

This permit approval to operate shall not relieve Owens-Brockway Glass Container Inc. of the responsibility to comply with all other local, state, and federal permit regulations.

Issuance of this permit is a case decision. The Regulations, at 9 VAC 5-170-200, provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this permit is mailed or delivered to you. Please consult that and other relevant provisions for additional requirements for such requests.

Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
PO Box 1105
Richmond, VA 23218-1105

In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Rule 2A of the Rules of the Supreme Court of Virginia for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this permit, please contact Ms. Yen Bao by phone at (757) 518-2195 or by e-mail at yen.bao@deq.virginia.gov.

Sincerely,

Troy D. Breathwaite
Regional Air Permits Manager

TDB/YTB/60923_017_15_CvrLtr_T5Renewal_Owens-Brockway.doc

Attachment: Permit

cc: Manager, Data Analysis (electronic file submission)
Manager/Inspector, Air Compliance
Chief, Air Enforcement Branch (3AP13), U.S. EPA, Region III (electronic file submission)



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Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300, of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Owens-Brockway Glass Container Inc.
Facility Name:	Owens-Brockway Glass Container Inc.
Facility Location:	150 Industrial Boulevard Toano, Virginia 23168
Registration Number:	60923
Permit Number:	TRO-60923

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Pages 3 through 34)

State Only Enforceable Requirements (Page 35)

August 9, 2015

Effective Date

August 8, 2020

Expiration Date

Regional Director

June 29, 2015

Signature Date

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I. Facility Information

Permittee
Owens-Brockway Glass Container Inc.
150 Industrial Boulevard
Toano, Virginia 23168

Responsible Official
Christopher Tonk
Plant Manager

Facility
Owens-Brockway Glass Container Inc., Toano, VA
150 Industrial Boulevard
Toano, Virginia 23168

Contact Person
Andrew Stewart
Senior Environmental Administrative Engineer
419-554-4017

County-Plant Identification Number: 51-095-00022

Facility Description: NAICS 327213 – Glass Container Manufacturing

Glass containers are manufactured from recycled glass (post-consumer and in-house process recycle) and other raw materials. The plant includes the following specific processes: raw material and cullet receiving and storage, raw material blend/mix, glass-melting furnaces, glass forming, final bottle treatment and packaging.

Raw material and cullet receiving and storage- The facility receives raw materials via truck and rail and stockpiles them in a storage area. The solid raw materials (e.g., sand, salt cake, limestone and soda ash) are conveyed from the truck or rail unloading area to a bucket elevator, which deposits them into silos. A crusher is utilized to size the cullet which is then screened and the oversize particles are recycled. Post-consumer and in-house crushed cullet- glass pieces to be used in the recycling process- are transported by bucket elevators to silos.

Raw material blend/mix- The solid raw materials for the next batch of glass are transported via conveyors and chutes from the respective silos to the sand scale, major scale and minor scale to be weighed. Then the materials are conveyed into the mixer and then on to the mixed batch surge hopper. Further transfer is via a vibratory conveyor, mixed batch bucket elevator and a belt conveyor to the batch storage bins which feed the glass furnaces. The silos, scales and conveyors are equipped with dust collectors.

Glass melting furnaces- The facility has two furnaces (A and B) which produce the melt used in the glass forming step. The primary fuel for the furnaces is natural gas. The use of residual oil has been discontinued as documented in the 3/05/04 NSR permit (now superseded). The furnaces are also fitted with electric boost systems that add to the heat applied to the melt without increasing fuel usage. Each furnace is equipped with a refiner and two forehearths that prepare the glass melt for the forming process. The refiners and forehearths are also fired with natural gas.

Glass forming- Bottle forming machines shape the glass melt using processes of shearing, gobbing and the final forming. The bottle molds must be continually maintained to produce satisfactory bottles. Preparation of the molds consists of mold repair, cleaning, lubricating, curing and heating. Periodic mold swabbing is performed as part of the continuous mold maintenance process. The bottle annealing process is accomplished in a moving bed kiln called a LEHR; two each per furnace. The LEHRS are fired with natural gas. Molded glass is treated in the Hot End Surface Treatment (HEST) process where a surface treatment compound such as monobutyltin trichloride is applied as a vapor. The material forms a coating of tin oxide on the outer surface of the bottles which enhances lubricity during subsequent processing. Further down the line, a Cold End Surface Treatment consists of spraying a dilute solution of polyethylene emulsion on the bottles.

Final bottle treatment and packaging- During the final processing, a bottle coding machine prints the date on the bottles which are then packaged in cardboard boxes with coded numbers to identify the contents.

Permits in-effect for this Facility-

The latest amended minor NSR permit was issued on 3/17/14 for the two glass melting furnaces (A and B) which superseded other versions of the permit. The 3/05/04 version was issued when the furnaces were retrofitted with an ESP and a NOx Continuous Emission Monitoring System (CEMS). A modification was allowed on 8/15/12 to increase the glass pulling capacity of furnace B and its annual throughput limit. The 3/17/14 minor amendment was to improve the monitoring requirements for the ESP operation.

There is also a minor NSR permit dated 4/12/05 for the Hot End Surface Treatment (HEST) process which has remained unchanged.

II. Emission Units and Control Device Identification

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
1-A	S-1(ESP bypass) S-6 (ESP controlled)	Glass melting furnace A with sealed-type natural gas burners, manufactured in 1978	Burners: 51.9 mmBtu/hr Glass pull rate: 12.1 tons/hr	Electrostatic precipitator, 3-field, Hamon Research-Cottrell, Inc., 2004. Capture efficiency: 100% Design control efficiency: 0.2 lbs PM emission/ton glass pulled. Actual control efficiency: 0.1 lbs PM emission/ton glass pulled.	ESP-1	PM (filterable) PM-10 (filterable)	3/17/14 NSR
1-B	S-1(ESP bypass) S-6 (ESP controlled)	Glass melting furnace B with sealed-type natural gas burners, manufactured in 1978, modified in 2013 (NSPS Subpart CC)	Burners: 51.9 mmBtu/hr Glass pull rate: 12.7 tons/hr	Electrostatic precipitator, 3-field, Hamon Research-Cottrell, Inc., 2004. Capture efficiency: 100% Design control efficiency: 0.2 lbs PM emission/ton glass pulled. Actual control efficiency: 0.1 lbs PM emission/ton glass pulled.	ESP-1	PM (filterable) PM-10 (filterable)	3/17/14 NSR
20	N/A	Diesel-fired emergency generator, 2001, MACT Subpart ZZZZ	587 hp	N/A	N/A	N/A	N/A
25	N/A	Diesel-fired emergency fire pump, Deutz Model DFP6 2013 C35, EPA Tier 3 certified, NSPS Subpart IIII and MACT Subpart ZZZZ	260 hp	N/A	N/A	N/A	2/06/12 Exemption letter

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Other Equipment							
6	S-5	Hot End Surface Treatment (HEST), 2005: molded glass containers are vapor treated with Monobutyl Tin Trichloride (MBTT)	2 lbs of MBTT per hour per hood (4 hoods)	None	N/A	N/A	4/12/05 NSR

*The Size/Rated capacity and PCD efficiency are provided for informational purposes only, and is not an applicable requirement.

III. Furnace Requirements- (Emission units ID# 1-A and 1-B)

A. Limitations

1. **Furnace Requirements- (Emission units ID# 1-A and 1-B) - Emission Control-** Particulate emissions from the glass melting furnaces 1-A and 1-B shall be controlled by a 3-field Electrostatic Precipitator (ESP-1). The ESP shall be provided with adequate access for inspection, and shall be in operation when either furnace is operating at a glass production rate of more than 50 tons per day except during routine maintenance of ESP-1 in accordance with 40 CFR 60.292 (e) as described below:

- a. Routine maintenance in each calendar year does not exceed 6 calendar days;
- b. Routine maintenance is conducted in a manner consistent with good air pollution control practices for minimizing emissions; and
- c. A report is submitted to the Director, Tidewater Regional Office, 10 days before the start of the routine maintenance (if 10 days cannot be provided, the report must be submitted as soon as practicable) and the report contains an explanation of the schedule of the maintenance.

Bypass events other than routine maintenance that exceed one hour shall be reported to the DEQ in accordance with the notification procedure in Condition 57.

(9 VAC 5-80-110 and Condition 3 of 3/17/14 NSR Permit)

2. **Furnace Requirements- (Emission units ID# 1-A and 1-B) – Fuel Limitations-** The approved fuel for the glass melting furnaces is natural gas. A change in the fuel may require a permit to modify and operate.

(9 VAC 5-80-110 and Condition 9 of 3/17/14 NSR Permit)

3. **Furnace Requirements- (Emission units ID# 1-A and 1-B) - Production Limitations-**

The production of glass by furnace 1-A shall not exceed 105,850 tons per year, calculated monthly as the sum of each consecutive 12-month period.

The production of glass by furnace 1-B shall not exceed 111,325 tons per year, calculated monthly as the sum of each consecutive 12-month period.

Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 8 of 3/17/14 NSR Permit)

4. Furnace Requirements- (Emission units ID# 1-A and 1-B) - Fugitive Dust Emission Controls-

Dust from material handling, batching, and furnace loading shall be controlled by partial enclosures, fabric filters or other methods (as approved by DEQ). All fugitive dust control devices shall be installed with adequate access for inspection and operated at maximum efficiency. Note that any changes that are allowed without a permit revision must meet the requirements of 40 CFR 70.4(b)(12), (14) and (15).

(9 VAC 5-80-110 and Condition 4 of 3/17/14 NSR Permit)

5. Furnace Requirements- (Emission unit ID# 1-B)- Requirements by Reference - Except where this permit is more restrictive than the applicable requirement, Furnace B shall be operated in compliance with the requirements of 40 CFR 60 Subpart CC.

(9 VAC 5-80-110 and Condition 10 of 3/17/14 NSR Permit)

6. Furnace Requirements- (Emission unit ID# 1-A)- Emission Limits- Emissions from the operation of the glass melting furnace 1-A shall not exceed the limits specified below:

PM (filterable)	2.4 lbs/hr	10.6 tons/yr
PM-10 (filterable plus condensable)	5.7 lbs/hr	24.9 tons/yr
PM-2.5 (filterable plus condensable)	5.7 lbs/hr	24.9 tons/yr
Sulfur Dioxide	43.5 lbs/hr	190.5 tons/yr
Nitrogen Oxides	72.5 lbs/hr	317.6 tons/yr
Carbon Monoxide	2.4 lbs/hr	10.6 tons/yr
Volatile Organic Compounds	2.4 lbs/hr	10.6 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 1-4, 9, 12-19.

(9 VAC 5-80-110 and Condition 11 of 3/17/14 NSR Permit)

7. Furnace Requirements- (Emission unit ID# 1-B)- Emission Limits- Emissions from the operation of the glass melting furnace 1-B shall not exceed the limits specified below:

PM (filterable)	2.5 lbs/hr	11.1 tons/yr
PM-10 (filterable plus condensable)	6.0 lbs/hr	26.2 tons/yr
PM-2.5 (filterable plus condensable)	6.0 lbs/hr	26.2 tons/yr
Sulfur Dioxide	40.3 lbs/hr	176.5 tons/yr
Nitrogen Oxides	73.7 lbs/hr	322.8 tons/yr
Carbon Monoxide	2.5 lbs/hr	11.1 tons/yr
Volatile Organic Compounds	2.5 lbs/hr	11.1 tons/yr

Except for the NOx lbs/hr, these emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 1-5, 9, and 12-19.

(9 VAC 5-80-110 and Condition 12 of 3/17/14 NSR Permit)

8. **Furnace Requirements- (Emission unit ID# 1-A and 1-B)- Emission Limits-** Emissions of the pollutants at ESP-1 exhaust stack shall not exceed the limits specified below:

PM (filterable)	0.20 lbs/ton-glass	5.0 lbs/hr	21.7 tons/yr
PM-10 (filterable plus condensable)		11.7 lbs/hr	51.1 tons/yr
PM-2.5 (filterable plus condensable)		11.7 lbs/hr	51.1 tons/yr

Except for PM (filterables) which is subject to NSPS Subpart CC standard of 0.20 lbs/ton-glass, these emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 1-5, 9, 12-13, 15, and 19.

(9 VAC 5-80-110 and Condition 13 of 3/17/14 NSR Permit)

9. **Furnace Requirements- (Emission units ID# 1-A and 1-B)- Visible Emission Limits -** Visible emissions from the ESP-1 stack shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.

(9 VAC 5-80-110 and Condition 14 of 3/17/14 NSR Permit)

10. **Furnace Requirements- (Emission units ID# 1-A and 1-B)- Maintenance/Operating Procedures-** At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9 VAC 5-80-110 and Condition 23 of 3/17/14 NSR permit)

11. **Furnace Requirements- (Emission units ID# 1-A and 1-B)- Violation of Ambient Air Quality Standard-** The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.

(9 VAC 5-80-110 and Condition 26 of 3/17/14 NSR permit)

B. Monitoring

12. **Furnace Requirements- (Emission unit ID# 1-A and 1-B)- Monitoring Devices for the Electrostatic Precipitator (ESP-1)-**

ESP-1 shall be equipped with devices to continuously measure and record (either hard copy or electronic file) the following parameters:

- a. Primary Volts, Primary Amps and Power input in Watts.
- b. Secondary KVolts, Secondary mA and Secondary Power in Watts.
- c. Spark rate.

Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the ESP is operating.

(9 VAC 5-80-110 and Condition 5 of 3/17/14 NSR Permit)

13. **Furnace Requirements- (Emission units ID# 1-A and 1-B)- Monitoring Device Operation and Records for the Electrostatic Precipitator (ESP-1)-** To ensure peak efficiency for particulate control, ESP-1 shall be operated at or above the minimum hourly average power rating from the most recent performance test for particulate emissions. An audible alarm shall become activated when any of the following ESP malfunctions occurs:

- a. Failure of any of the precipitator rappers;
- b. Any of the transformer rectifiers (TR-1, TR-2, and TR-3) of any fields currently in service tripped. The tripping shall be set to occur when there is over-current, high temperature of silicon control rectifier (SCR), high temperature of the TR, or low oil level.

The permittee shall keep logs (either hard copy or electronic file) of all monitored ESP parameters, all ESP malfunctions and any corrective action taken.

(9 VAC 5-80-110 and Condition 6 of the 3/17/14 NSR Permit)

14. **Furnace Requirements- (Emission units ID# 1-A and 1-B)- Nitrogen Oxide Continuous Emission Monitoring System (NOx-CEMS) Requirement-** Continuous Emission Monitoring Systems, meeting the design specifications approved by the DEQ, equivalent to the requirements of 40 CFR Part 60, Appendix B, shall be installed to measure and record the emissions of NOx from each of the glass melting furnaces 1-A and 1-B as pounds per hour. The CEMS shall be installed, calibrated, maintained, audited and operated in accordance with the requirements of 40 CFR 60.13, Appendix F or DEQ approved procedures which are equivalent to the requirements of 40 CFR 60.13, Appendix F. Data shall be reduced to one-hour averages.

(9 VAC 5-80-110 and Condition 7 of 3/17/14 NSR Permit)

15. **Furnace Requirements- (Emission units ID# 1-A and 1-B)- Continuing Compliance Determination- Visible Emissions Monitoring-** The permittee shall perform a weekly visible emission observation on the ESP-1 stack during normal operation of the glass furnaces for at least one minute. If such visual observation indicates any visible emissions, the permittee shall take corrective actions to eliminate the visible emissions. If such corrective action fails to eliminate visible emissions, the permittee shall conduct a visible emissions evaluation (VEE) using 40 CFR 60, Appendix A, Method 9 for six minutes. If the six-minute VEE opacity average exceeds 20%, the VEE shall continue for one hour from the initiation to determine compliance with the opacity limit. If compliance is not demonstrated by this VEE, timely corrective action shall be taken to bring the ESP back to compliance. Results of observations and/or VEEs shall be recorded in the operation log. Records of observations shall include the following:

The name of the observer,

Date and time of the observation,

An indication of presence or absence of visible emissions,

The color of the emissions,

Whether the emissions are representative of normal operation,

If emissions are not representative of normal operation, the cause of the abnormal emissions, the duration of any visible emission incident, and any corrective action to eliminate visible emissions.

If a VEE is conducted, records shall be in accordance with Method 9 (40 CFR 60, Appendix A).

(9 VAC 5-80-110 and Condition 15 of 3/17/14 NSR Permit)

- 16. Furnace Requirements- (Emission units ID# 1-A and 1-B)- Continuing Compliance Determination- NOx-CEMS Performance Evaluation-** Performance evaluations of each NOx-CEMS shall be conducted in accordance with DEQ approved procedures, equivalent to 40 CFR Part 60, Appendix B, and shall take place on a recurring basis, but no later than the fourth calendar quarter after the previous evaluation. A copy of the performance evaluation report shall be submitted to the Tidewater Regional Office within 60 days of the evaluation. The CEMS shall be installed and operational prior to conducting any performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device. A 30-day notification of CEMS performance evaluations shall be submitted to the Tidewater Regional Office.

(9 VAC 5-80-110 and Condition 16 of 3/17/14 NSR Permit)

- 17. Furnace Requirements- (Emission units ID# 1-A and 1-B)- Continuing Compliance Determination- NOx-CEMS Quality Control Program-** A CEMS quality control program which meets the requirements of 40 CFR 60.13 and Appendix B and F or is equivalent to the requirements of 40 CFR 60.13 and Appendix B and F shall be implemented for all continuous monitoring systems.

(9 VAC 5-80-110 and Condition 17 of 3/17/14 NSR Permit)

C. Reporting

- 18. Furnace Requirements- (Emission units ID# 1-A and 1-B)- Continuing Compliance Determination- Reports for NOx-CEMS -** The permittee shall furnish written reports to the Tidewater Regional Office of excess emissions from any process monitored by a CEMS on a quarterly basis, postmarked no later than the 30th day following the end of the calendar quarter. These reports shall include, but are not limited to the following information:
- a. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of each period of excess emissions;
 - b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted;

- c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
- d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in that report.

(9 VAC 5-80-110 and Condition 18 of 3/17/14 NSR Permit)

D. Recordkeeping

19. Furnace Requirements- (Emission units ID# 1-A and 1-B)- Recordkeeping- The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:

- a. Annual production of glass by each furnace (1-A and 1-B), calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- b. Operation and monitoring device records for ESP-1.
- c. Performance test results.
- d. Visible emission monitoring records for ESP-1 including all visible emission observations, any visible emission evaluations (VEE) in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A), and any corrective action.
- e. ESP-1 scheduled and unscheduled maintenance, and operator training.
- f. Hourly, monthly and annual emissions for NO_x from each furnace using CEMS data and calculation methods approved by the Tidewater Regional Office to verify compliance with the lb/hr and ton/yr emissions limitations in Conditions 6 and 7.
- g. NO_x-CEMS calibrations and calibration checks, percent operating time, and excess emissions.
- h. All reports.
- i. All notifications.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and Condition 19 of 3/17/14 NSR Permit)

E. Testing

20. **Furnace Requirements- (Emission units ID# 1-A and 1-B)- Emission Testing** - The glass container production plant shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. This includes constructing the facility/equipment such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing a stack or duct that is free from cyclonic flow. Sampling ports shall be provided when requested at the ESP-1 stack or at the appropriate locations or in accordance with the applicable performance specification (reference 40 CFR 60 Appendix B), and safe sampling platforms and access shall be provided.
(9 VAC 5-80-110 and Condition 20 of 3/17/14 NSR Permit)
21. **Furnace Requirements- (Emission units ID# 1-A and 1-B)- Emission Testing** - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

IV. Hot End Surface Treatment (HEST) Process Requirements- (Emission unit ID# 6)

A. Limitations

22. **HEST Process Equipment Requirements- (Emission unit ID# 6)- Emission Controls** - Volatile organic compounds and hydrogen chloride emissions are limited by optimizing the transfer efficiency and conversion of monobutyl tin trichloride to a tin oxide coating on the glass containers. Increased transfer efficiency and reaction of the compound minimizes the throughput of monobutyl tin trichloride (a VOC) for the HEST process.
(9 VAC 5-80-110 and Condition 3 of 4/12/05 NSR permit)
23. **HEST Process Equipment Requirements- (Emission unit ID# 6)- Throughput Limits**- The throughput of Monobutyl tin trichloride to the HEST equipment (Unit Ref. No. 6) shall not exceed 5,256 gallons (72,737 lbs) per year, calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110 and Condition 4 of 4/12/05 NSR permit)

24. HEST Process Equipment Requirements- (Emission unit ID# 6)- Emission Limits-

Emissions from the operation of the HEST process (Unit Ref. No. 6) shall not exceed the limits specified below:

Volatile Organic Compounds	5.3 lbs/hr	23.3 tons/yr
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These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of the emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 22, 23, 25, and 29.

(9 VAC 5-80-110 and Condition 5 of 4/12/05 NSR permit)

25. HEST Process Equipment Requirements- (Emission unit ID# 6)- Visible Emission Limits-

Visible emissions from the HEST process exhaust shall not exceed ten percent (10%) opacity as determined by EPA Method 9 (Reference 40 CFR 60, Appendix A).

(9 VAC 5-80-110 and Condition 7 of 4/12/05 NSR permit)

26. HEST Process Equipment Requirements- (Emission unit ID# 6)- Maintenance/Operating Procedures-

The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9 VAC 5-80-110 and Condition 12 of 4/12/05 NSR permit)

27. HEST Process Equipment Requirements- (Emission unit ID# 6)- Violation of Ambient Air Quality Standard-

The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.

(9 VAC 5-80-110 and Condition 11 of 4/12/05 NSR permit)

B. Monitoring

28. **HEST Process Equipment Requirements- (Emission unit ID# 6)- Visible Emission Monitoring-** The permittee shall perform a weekly visual observation on the exhaust of the HEST process hoods during normal operation of the process. If such visual observation indicates any visible emissions, the permittee shall take corrective actions to eliminate the visible emissions. If such corrective action fails to eliminate the visible emissions, the permittee shall conduct a visible emissions evaluation (VEE) using 40 CFR 60, Appendix A, Method 9 for one hour to determine compliance with the opacity limit. The permittee shall keep records of the weekly visual observations, any corrective actions taken, and any visual emissions evaluations (VEEs) in accordance with 40 CFR 60, Appendix A, Method 9.
- (9 VAC 5-80-110 and Condition 7 of 4/12/05 NSR Permit)

C. Recordkeeping

29. **HEST Process Equipment Requirements- (Emission unit ID# 6)- Recordkeeping-** The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:
- a. Annual throughput of Monobutyl tin trichloride, calculated monthly as the sum of each consecutive 12-month period;
 - b. Annual emissions (in lbs) of VOC and Hydrogen chloride, calculated monthly as the sum of each consecutive 12-month period;
 - c. Material Safety Data Sheets (MSDS) or other information showing the VOC content and the weight percent of any HAP for the bottle coating (HEST process);
 - d. Scheduled and unscheduled maintenance;
 - e. Records of the required training including a statement of time, place and nature of the training provided; and
 - f. Weekly visible emissions monitoring results.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and Condition 8 of 4/12/2005 NSR Permit)

V. Emergency Generator and Emergency Fire Pump Requirements- (Emission Units ID# 20 and 25, respectively)

A. Limitations

30. **Emergency Generator Requirements- (Emission Unit ID# 20)- Limitations-** The operation of the emergency generator shall meet the definition of an emergency stationary RICE in 9 VAC 5-80-1110 and 40 CFR 63.6675, and shall not exceed the operating hour limitations in 40 CFR 63.6640(f) and the 500 hours total operation per year limit in 9 VAC 5-80-1105 B.

(9 VAC 5-80-110 and 40 CFR 63 Subpart ZZZZ)

31. **Emergency Generator Requirements- (Emission Unit ID# 20)- Operation and Maintenance Practice-** The permittee shall meet the following requirements as required by 40 CFR 63.6603(a) and Table 2d in 40 CFR 63 Subpart ZZZZ:

- a. Change oil and filter every 500 hours of operation or annually, whichever comes first;
- b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and
- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in accordance with 40 CFR 63.6625(i).

The permittee must operate and maintain the emergency generator according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions (40 CFR 63.6625(e)).

The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes (40 CFR 63.6625(h)).

(9 VAC 5-80-110 and 40 CFR 63 Subpart ZZZZ)

32. **Emergency Fire Pump Requirements- (Emission Unit ID# 25)- Limitations-** The operation of the emergency fire pump shall meet the definition of an emergency internal combustion engine in 9 VAC 5-80-1110 and 40 CFR 60.4219, and shall not exceed the operating hour limitations in 40 CFR 60.4211(f) and the 500 hours total operation per year limit in 9 VAC 5-80-1105 B.

(9 VAC 5-80-110, 9 VAC 5-80-1105, 9 VAC 5-80-1110, and 40 CFR 60 Subpart IIII)

33. **Emergency Fire Pump Requirements- (Emission Unit ID# 25)- Fuel Limitations-** The approved fuel is diesel fuel that meets the requirements of 40 CFR 80.510(b).

Maximum sulfur content per shipment: 0.0015%

(9 VAC 5-80-110 and 40 CFR 60.4207(b))

34. **Emergency Fire Pump Requirements- (Emission Unit ID# 25)- Limitations-** The permittee shall obtain a certification from the fuel supplier with each shipment of diesel fuel. Each fuel supplier certification shall include the following:

- a. The name of the fuel supplier;
- b. The date on which the diesel fuel was received;
- c. The quantity of diesel fuel delivered in the shipment;
- d. A statement that the diesel fuel complies with the American Society for Testing and Materials specifications (ASTM D975) for S15 diesel fuel oil; and
- e. The sulfur content of the diesel fuel.

(9 VAC 5-80-110 and 40 CFR 60.4207(b))

35. **Emergency Fire Pump Requirements- (Emission Unit ID# 25)- Emissions Limitations-** Emissions from the emergency fire pump shall meet the following standards in Table 4 of 40 CFR 60 Subpart IIII:

	g/kW-hr	g/hp-hr
NMHC+ NOx	4.0	3.0
PM	0.2	0.15

Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 36 and 42.

(9 VAC 5-80-110 and 40 CFR 60.4205(c))

36. **Emergency Fire Pump Requirements- (Emission Unit ID# 25)- Compliance Requirements-** The permittee must do all of the following:

- a. Operate and maintain the emergency fire pump to achieve the required emission standards over the entire life of the engine (40 CFR 60.4206);

- b. Operate and maintain the emergency fire pump according to the manufacturer's emission-related written instructions (40 CFR 60.4211(a));
- c. Change only those emission-related settings that are permitted by the manufacturer (40 CFR 60.4211(a)); and
- d. Install and configure the emergency fire pump according to the manufacturer's emission-related specifications (40 CFR 60.4211(c)).

(9 VAC 5-80-110, 40 CFR 60.4206 and 60.4211)

37. **Emergency Generator (Emission Unit ID# 20) and Emergency Fire Pump (Emission Unit ID# 25) Requirements- Requirements by Reference (MACT)**- Except where this permit is more restrictive than the applicable requirement, the emergency generator and the emergency fire pump shall be operated in compliance with the requirements of 40 CFR 63, Subpart ZZZZ- National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

(9 VAC 5-80-110 and 9 VAC 5-60-100)

38. **Emergency Fire Pump Requirements- (Emission Unit ID# 25)- Requirements by Reference (NSPS)** - Except where this permit is more restrictive than the applicable requirement, emergency fire pump shall be operated in compliance with the requirements of 40 CFR 60, Subpart IIII- Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

(9 VAC 5-80-110 and 40 CFR 60 Subpart IIII)

B. Monitoring

39. **Emergency Generator Requirements- (Emission Unit ID# 20)- Monitoring-** The emergency generator shall be equipped with a non-resettable hour meter to continuously monitor the operating hours.

(9 VAC 5-80-110 and 40 CFR 63.6625(f))

40. **Emergency Fire Pump Requirements- (Emission Unit ID# 25)- Monitoring-** The emergency fire pump shall be equipped with a non-resettable hour meter to continuously monitor the operating hours.

(9 VAC 5-80-110 and 40 CFR 60.4209(a))

C. Reporting

41. **Emergency Generator Requirements- (Emission Unit ID# 20)- Reporting-** If the emergency generator is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of MACT Subpart ZZZZ, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.
- (9 VAC 5-80-110 and Footnote 2 of Table 2d of 40 CFR 63 Subpart ZZZZ)

D. Recordkeeping

42. **Emergency Generator (Emission Unit ID# 20) and Emergency Fire Pump (Emission Unit ID# 25) Requirements- Recordkeeping-** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:
- a. The hours of operation of each of the emergency generator and the emergency fire pump as recorded through the non-resettable hour meter, including the hours spent for emergency operation and the hours spent on non-emergency operation, and documentation for emergency operation (40 CFR 63.6655(f) and 40 CFR 60.4214(b)), respectively).
 - b. Operation and maintenance records for the emergency generator in accordance with Condition 31 (40 CFR 63.6655(a), (d) and (e)).
 - c. Reports for the emergency generator in accordance with Condition 41 (40 CFR 63.6650).
 - d. Records of any deviations from the compliance requirements for the emergency fire pump in Condition 36.
 - e. All diesel fuel certifications.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110, 9 VAC 5-80-1105 B, NSPS Subpart IIII, and MACT Subpart ZZZZ)

VI. Insignificant Emission Units

43. **Insignificant Emission Units** - The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
2-A & 2-B	Refiners A and B, one for each furnace (1-A and 1-B), natural gas-fired molten glass heaters	9 VAC 5-80-720 C		2.8 mmBtu/hour each
3-A & 3-B	Forehearths A and B, each has 2 units for each furnace (1-A and 1-B), natural gas-fired glass heaters	9 VAC 5-80-720 C		1.8 mmBtu/hour each
4	Lehrs, 4 units total, natural gas-fired, bottle annealing	9 VAC 5-80-720 C		4.2 mmBtu/hour each
5	Mold swabbing- periodic application of lubrication to bottle-forming molds	9 VAC 5-80-720 B	PM/PM-10	
7	Bottle finishing emulsion- application of polyethylene emulsion to molded glass bottles	9 VAC 5-80-720 B	PM/PM-10	
8	Bottle coding inking- Printing of identification numbers on the bottles	9 VAC 5-80-720 B	VOC	
9	Box coding printing – Printing of identification numbers on the boxes	9 VAC 5-80-720 B	VOC	
10	Ink/printer cleaning- clean-up solvent for bottle and box coding equipment	9 VAC 5-80-720 B	VOC	
11	Box assembly- glue is used to assemble the packing boxes	9 VAC 5-80-720 B	PM/PM10	
12A	Glass crusher for post-consumer and in-house cullet	9 VAC 5-80-720 B	PM/PM10	
13	Raw material unloading operation	9 VAC 5-80-720 B	PM/PM10	
14	Batch storage	9 VAC 5-80-720 B	PM/PM10	

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
15	Parts washer stations	9 VAC 5-80-720 B	VOC	
17	Contact cooling tower	9 VAC 5-80-720 B	PM/PM10	
18	Storage tanks	9 VAC 5-80-720 B	VOC/HAP	
19	Oil/water separator	9 VAC 5-80-720 B	VOC/HAP	
21	Boiler, natural gas	9 VAC 5-80-720 C		0.344 mmBtu/hour
22	Central vacuum system, used on spilled raw materials	9 VAC 5-80-720 B	PM/PM10	
23	Cullet conveyor system, used to convey cullet into the batch house	9 VAC 5-80-720 B	PM/PM10	
24	ESP dust recycling system, used to convey collected ESP dust to the batch house for re-use	9 VAC 5-80-720 B	PM/PM10	
26	Difluoroethane internal bottle treatment	9 VAC 5-80-720 B	HAP	

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

VII. Permit Shield & Inapplicable Requirements

44. **Permit Shield & Inapplicable Requirements** - Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 60 Subpart CC	Standards of Performance for Glass Manufacturing Plants	Applicable to glass melting furnaces constructed or modified after 6/15/1979. This NSPS does not apply to Furnace A (Emission Unit # 1-A) which was constructed in 1978.
40 CFR 63 Subpart SSSSSS	National Emission Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources	Applicable to facilities with one or more continuous furnaces to produce glass that contains compounds of one or more glass manufacturing metal HAP (arsenic, cadmium, chromium, lead, manganese and nickel) as raw materials in a glass manufacturing batch formulation. The facility does not use such raw materials.
40 CFR 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters	Applicable to boilers and process heaters at major sources of HAP. The facility is not major for HAPs.
40 CFR 63 Subpart JJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources	Applicable to boilers at area sources. However, the refiners, forehearths, and LEHRs are process heaters, excluded from the definition of boilers (40 CFR 63.11237).

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.

(9 VAC 5-80-140)

VIII. General Conditions

45. **General Conditions - Federal Enforceability** -All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)
46. **General Conditions - Permit Expiration**- This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D, and 9 VAC 5-80-170 B)
47. **General Conditions - Permit Expiration**-The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D, and 9 VAC 5-80-170 B)
48. **General Conditions - Permit Expiration**-If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D, and 9 VAC 5-80-170 B)
49. **General Conditions - Permit Expiration**-No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D, and 9 VAC 5-80-170 B)
50. **General Conditions - Permit Expiration**-If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D, and 9 VAC 5-80-170 B)
51. **General Conditions - Permit Expiration**-The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D, and 9 VAC 5-80-170 B)

52. **General Conditions -Recordkeeping and Reporting** - All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

- a. The date, place as defined in the permit, and time of sampling or measurements.
- b. The date(s) analyses were performed.
- c. The company or entity that performed the analyses.
- d. The analytical techniques or methods used.
- e. The results of such analyses.
- f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

53. **General Conditions -Recordkeeping and Reporting** - Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9 VAC 5-80-110 F)

54. **General Conditions -Recordkeeping and Reporting** - The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
- b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:
 - (1) Exceedance of emissions limitations or operational restrictions;
 - (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or
 - (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”

(9 VAC 5-80-110 F)

55. General Conditions - Annual Compliance Certification - Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the certification. The time period to be addressed is January 1 to December 31.
- b. The identification of each term or condition of the permit that is the basis of the certification.
- c. The compliance status.
- d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
- e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
- f. Such other facts as the permit may require to determine the compliance status of the source.
- g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov

(9 VAC 5-80-110 K.5)

56. **General Conditions - Permit Deviation Reporting** - The permittee shall notify the Director, Tidewater Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to Condition 76 of this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

57. **General Conditions - Failure/Malfunction Reporting** - In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, Tidewater Regional Office by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Tidewater Regional Office.

(9 VAC 5-20-180 C)

58. **General Conditions - Failure/Malfunction Reporting** - The emission units that have continuous monitors subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not subject to the 14 day written notification.

(9 VAC 5-20-180 C, 9 VAC 5-40-50, and 9 VAC 5-50-50)

59. **General Conditions - Failure/Malfunction Reporting** - The emission units subject to the reporting and the procedure requirements of 9 VAC 5-40-50 C and the procedures of 9 VAC 5-50-50 C are listed below:

- a. Furnace A
- b. Furnace B

(9 VAC 5-20-180 C, 9 VAC 5-40-50, and 9 VAC 5-50-50)

60. **General Conditions - Failure/Malfunction Reporting** - Each owner required to install a continuous monitoring system (CMS) or monitoring device subject to 9 VAC 5-40-41 or 9 VAC 5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9 VAC 5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the board quarterly. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. All reports shall include the following information:
- a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9 VAC 5-40-41 B.6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;
 - b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
 - c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
 - d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.
All malfunctions of emission units not subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C require written reports within 14 days of the discovery of the malfunction.
(9 VAC 5-20-180 C, 9 VAC 5-40-50, and 9 VAC 5-50-50)
61. **General Conditions - Severability** - The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)
62. **General Conditions - Duty to Comply** - The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)
63. **General Conditions - Need to Halt or Reduce Activity not a Defense** - It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

64. **General Conditions - Permit Modification** - A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-190 and 9 VAC 5-80-260)
65. **General Conditions - Property Rights** - The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)
66. **General Conditions - Duty to Submit Information** - The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)
67. **General Conditions - Duty to Submit Information** - Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)
68. **General Conditions - Duty to Pay Permit Fees** - The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)
69. **General Conditions - Fugitive Dust Emission Standards** - During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:
- a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

- b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
- c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;
- d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and
- e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

70. **General Conditions - Startup, Shutdown, and Malfunction** - At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20 E and 9 VAC 5-40-20 E)

71. **General Conditions - Alternative Operating Scenarios** - Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.

(9 VAC 5-80-110 J)

72. **General Conditions - Inspection and Entry Requirements** - The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
- b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

73. General Conditions - Reopening For Cause - The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F. The conditions for reopening a permit are as follows:

- a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

74. General Conditions - Permit Availability - Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

75. General Conditions - Transfer of Permits - No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.

(9 VAC 5-80-160)

76. General Conditions - Transfer of Permits - In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.

(9 VAC 5-80-160)

77. **General Conditions - Transfer of Permits** - In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)
78. **General Conditions - Malfunction as an Affirmative Defense** - A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of Condition 79 are met.
(9 VAC 5-80-250)
79. **General Conditions - Malfunction as an Affirmative Defense** - The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
- a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
 - b. The permitted facility was at the time being properly operated.
 - c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.
 - d. The permittee notified the Board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
(9 VAC 5-80-250)
80. **General Conditions - Malfunction as an Affirmative Defense** - In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
(9 VAC 5-80-250)
81. **General Conditions - Malfunction as an Affirmative Defense** - The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.
(9 VAC 5-80-250)

82. **General Conditions - Permit Revocation or Termination for Cause** - A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-190 C and 9 VAC 5-80-260)
83. **General Conditions - Duty to Supplement or Correct Application** - Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)
84. **General Conditions - Stratospheric Ozone Protection** - If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)
85. **General Conditions - Asbestos Requirements** - The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)
86. **General Conditions - Accidental Release Prevention** - If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)
87. **General Conditions - Changes to Permits for Emissions Trading** - No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)
88. **General Conditions - Emissions Trading** - Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

- a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
 - b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
 - c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.
- (9 VAC 5-80-110 I)

IX. State-Only Enforceable Requirements

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

89. **State-Only Enforceable Requirements- Standard for Odorous Emissions-** The facility is subject to the Standards of Performance for Odorous Emissions in 9 VAC 5-50-130 et seq. (Rule 5-2).

(9 VAC 5-80-110 N and 9 VAC 5-80-300)

90. **State-Only Enforceable Requirements- Standard for Toxic Pollutants-** The facility is subject to the Emission Standards for Toxic Pollutants in 9 VAC 5-60-300 et seq. (Rule 6-5).

(9 VAC 5-80-110 N and 9 VAC 5-80-300)

91. **State-Only Enforceable Requirements- Limitations- Toxic Emission Limits** - Emissions of toxic pollutants from the operation of the HEST process (Unit Ref. No. 6) shall not exceed the limits specified below:

Hydrochloric Acid	1.0 lbs/hour	4.5 tons/year
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These emissions are derived from the estimate overall emission contribution from the operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of the emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 22-24, and 29.

(9 VAC 5-80-110, 9 VAC 5-80-300 and Condition 6 of 4/12/2005 NSR permit)