

## Standard AIR CONTAMINANT DISCHARGE PERMIT REVIEW REPORT

Department of Environmental Quality  
Northwest Region

### Source Information:

SIC	3211
NAICS	327211

Source Categories (Table 1 Part, code)	B, 83
Public Notice Category	II

### Compliance and Emissions Monitoring Requirements:

FCE	
Compliance schedule	
Unassigned emissions	
Emission credits	
Special Conditions	

Source test [date(s)]	
COMS	
CEMS	
Ambient monitoring	

### Reporting Requirements

Annual report (due date)	15 Feb
Quarterly report (due dates)	

Monthly report (due dates)	
Excess emissions report	
Other (specify)	

### Air Programs

Synthetic Minor (SM)	
SM -80	
NSPS (list subparts)	
NESHAP (list subparts)	61, N
Part 68 Risk Management	
CFC	

NSR	
PSD	
RACT	
TACT	x
Other (specify)	

**TABLE OF CONTENTS**

PERMITTING .....	3
SOURCE DESCRIPTION.....	3
COMPLIANCE.....	4
EMISSIONS .....	4
MAJOR SOURCE APPLICABILITY .....	5
ADDITIONAL REQUIREMENTS.....	6
PUBLIC NOTICE.....	6

## **PERMITTING**

### PERMITTING ACTION

1. The permit is for an existing Air Contaminant Discharge Permit (ACDP) which was issued on 8/6/04 and was originally scheduled to expire on 6/1/09. It is a Standard permit, as the permittee has chosen to retain the facility's baseline emission rates.
2. The renewal application was submitted on 3/18/09. In April 2009, Bullseye Glass requested from EPA a determination of whether the facility is subject to 40 CFR 61, Subpart N, National Emission Standards for Inorganic Arsenic Emissions from Glass Manufacturing. EPA's determination, as contained in a letter dated 7/27/2010, was that the Subpart is applicable to the Bulleye facility.

### OTHER PERMITS

3. No other permits have been issued or are required by the Department of Environmental Quality for this source.

### ATTAINMENT STATUS

4. The source is located in a maintenance area for CO and Ozone. NO<sub>x</sub> and VOC are precursors to Ozone. The facility is an insignificant source of CO, NO<sub>x</sub> and VOC. The area is in attainment for all other criteria pollutants.

## **SOURCE DESCRIPTION**

### OVERVIEW

5. The permittee manufactures flat, stained glass. The process includes mixing sand, soda lime, and crushed glass with dry coloring agents, moistening the mixture with water, melting the mixture in a tank furnace, and forming glass sheets. The sheets are cut to specified sizes. The facility was built in 1974.
6. In 2006, the process was changed to allow the infusion of liquid oxygen into the furnaces during the melting process in lieu of ambient air. This change in process lowered NO<sub>x</sub> emissions by roughly 40% for each retrofitted furnace. The change is made to the various furnaces during scheduled downtime (once every two years).

**PROCESS AND CONTROL DEVICES**

7. Existing air contaminant sources at the facility consist of the following:
- A Torit baghouse collects PM emissions from the silos that feed into the batch room, installed 2000. Collected material is reused in the process.
  - 14 tank furnaces (1-9 and 11-15), natural gas fired with propane back-up; cumulative operating capacity of 885 lb/hr and 2,700 ton/yr, 16,625 ft<sup>3</sup>/hr.
  - 2 pot furnaces (10 & 17), natural gas fired with propane back-up; cumulative operating capacity of 35 lb/hr and 100 ton/yr, 475 ft<sup>3</sup>/hr
  - New capacity is expected from the installation of new furnaces (18-20) or expanding the existing capacity of existing equipment. Anticipated cumulative capacity is 115 lb/hr and 350 ton/yr. This equipment will also be fired on natural gas with propane back-up and combust 3,800 ft<sup>3</sup>/hr.
  - Total fuel usage is estimated at 171 million ft<sup>3</sup>/yr.

**COMPLIANCE**

8. The facility was inspected on 9/14/05 and found to be out of compliance with the permit requirement to monitor the use of arsenic trioxide. The company responded to a Warning Letter by instituting procedures to monitor the use of arsenic trioxide monthly. No further action was deemed necessary. The facility was inspected on 8/16/10 and found to be in compliance with permit conditions.
9. During the prior permit period one complaint regarding the issuance of black smoke was recorded for this facility. A site visit on 9/13/07 revealed that the black smoke observed most likely came from a train. Train tracks run one block northwest of the plant. Emission exhaust points at the plant were observed during two batch processes; one for clear glass and one for red glass. No visible emissions were noted.

**EMISSIONS**

10. Proposed PSEL information:

Pollutant	Baseline Emission Rate (tons/yr)	Netting Basis		Plant Site Emission Limits (PSEL)		
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase (tons/yr)
PM <sub>10</sub>	0	1	0	14	14	0
SO <sub>2</sub>	0	1	0	39	39	0
NO <sub>x</sub>	6	6	6	45	45	0

- a. The proposed PSELs for all pollutants except NO<sub>x</sub> are equal to the Generic PSEL in accordance with OAR 340-216-0064(4)(b) and the netting basis is zero in accordance with OAR 340-222-0040(2). This change is a correction to the previous permit/review report. The facility's PTE for PM<sub>10</sub> and SO<sub>2</sub> are less than the Generic PSEL, thus the netting basis is zero.
- b. The PSEL for PM has been removed from the permit. Emissions from natural gas combustion and emissions from dry materials handling treated by a baghouse are PM<sub>10</sub>.
- c. The PSEL for NO<sub>x</sub> is equal to the netting basis plus the generic PSEL.
- d. For the 2009 production of 2,144 tons of glass melted, emissions of 1.8 tons PM, 1.7 tons PM<sub>10</sub>, 2.7 tons SO<sub>2</sub>, and 17.9 tons NO<sub>x</sub> were reported.
- e. The PSEL is a federally enforceable limit on the potential to emit.

#### SIGNIFICANT EMISSION RATE ANALYSIS

11. For each pollutant, the proposed Plant Site Emission Limit is less than the Netting Basis plus the significant emission rate, thus no further air quality analysis is required.

### **MAJOR SOURCE APPLICABILITY**

#### CRITERIA POLLUTANTS

12. A major source is a facility that has the potential to emit 100 tons/yr or more per year of any criteria pollutant. This facility is not a major source of criteria pollutant emissions.

#### HAZARDOUS AIR POLLUTANTS

13. A major source is a facility that has the potential to emit 10 tons/yr or more of any single HAP or 25 tons/yr or more of combined HAPs. This facility uses approximately 6,000 pounds of dry materials per year that contain HAP substances. Materials used at the facility may include arsenic trioxide, cadmium, selenium, chromium, and lead as coloring agents or to produce trade-mark characteristics in the glass. After the dry products are mixed, water is added to moisten a batch prior to firing. No data on the potential emissions through the furnace stack from these hydrated mixtures is available. Assuming that all of the material was released as PM, the facility would not have the potential to emit single or combined HAP at or above the major source threshold.

## **ADDITIONAL REQUIREMENTS**

### NSPS APPLICABILITY

14. 40 CFR Part 60, Subpart CC, New Source Performance Standards for Glass Manufacturing Plants, is not applicable to the source because the facility was constructed in 1974, prior to the June 15, 1979 subpart promulgation date.

### NESHAPS/MACT APPLICABILITY

15. 40 CFR 63, Subpart SSSSSS, NESHAP for Glass Manufacturing Area Sources, is not applicable to this facility because the regulation applies only to continuous furnaces. Bullseye operates only periodic furnaces.
16. 40 CFR Part 61, Subpart N, National Emission Standards for Inorganic Arsenic Emissions from Glass Manufacturing, applies to a facility of any size existing prior to August 4, 1986. The limit for an uncontrolled source is 2.7 tons of arsenic emissions per year, based on mass balance. Bullseye reported the use of 825 pounds of arsenic in calendar year 2009.

### RACT APPLICABILITY

17. The facility is located in the Portland AQMA, but it is not one of the listed source categories in OAR 340-232-0010, thus the RACT rules do not apply

### TACT APPLICABILITY

18. The source is meeting the states TACT/Highest and Best Rules by collecting dry material fugitives in a baghouse and using water to moisten the mixture prior to firing.

## **PUBLIC NOTICE**

19. Pursuant to OAR 340-216-0066(4)(a)(A), issuance of Standard Air Contaminant Discharge Permits require public notice in accordance with OAR 340-209-0030(3)(b), which requires that the Department provide notice of the proposed permit action and a minimum of 35 days for interested persons to submit written comments. **The public notice was mailed on April 15, 2011 and the comment period ended at 5 p.m., May 20, 2011. No comments were received during the comment period.**

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5/24/11