

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: On-site Inspection

P100856974

FACILITY: OcuGlass, LLC		SRN / ID: P1008
LOCATION: 51804 Industrial Drive, CALUMET		DISTRICT: Marquette
CITY: CALUMET		COUNTY: HOUGHTON
CONTACT: Brad Aldrich , CEO		ACTIVITY DATE: 02/10/2021
STAFF: Michael Conklin	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Targeted inspection for FY 21.		
RESOLVED COMPLAINTS:		

**Facility: OcuGlass, LLC (SRN: P1008)**

**Location: 51804 Industrial Dr., Calumet, MI**

**Contacts: Brad Aldrich, CEO, 906-483-3953**

### Regulatory Authority

*Under the Authority of Section 5526 of Part 55 of NREPA, The Department of Environment, Great Lakes, and Energy (EGLE) may upon the presentation of their card, and stating the authority and purpose of the investigation, enter and inspect any property at reasonable times for the purpose of investigating either an actual or suspected source of air pollution or ascertaining compliance or noncompliance with NREPA, Rules promulgated thereunder, and the federal Clean Air Act.*

### Facility Description

OcuGlass, LLC (OcuGlass) is an acid-etched glass manufacture located in the Houghton County Airport Park near Calumet, Michigan. The company started as D.A. Glass America Inc., in 2013 and was later renamed to OcuGlass in 2016 with having been acquired by IIWS Inc. OcuGlass utilizes an acid-etched process that produces decorative finishes on glass products.

### Process Description

OcuGlass is currently producing finished glass panels using an acid-etch process for a variety of applications. The process includes 10 tanks for rinsing, etching, bright dipping, and cleaning. The 10 tanks contain varying amounts of the following: hydrochloric acid, potassium fluoride/hydrofluoric acid, hydrofluoric acid, ammonium bifluoride/sulfuric acid/urea. Some of the tanks are mechanically agitated constantly, while others go through an aeration mixing sequence at various times that consist of running 25 psi air through the tanks for 2-3 minutes every 8 hours. The acidic solutions are stored in 55-gallon drums until being used. The process tanks are vented through a wet scrubber to the atmosphere and are covered inside the facility when not being used. The process starts with glass panels loaded into the tanks and ends with the panels placed on racks for drying.

## Emissions

Emissions from the acid-etch process consists of evaporative/aeration emissions from the tanks. The tanks are vented and exhausted through a wet scrubber system. The emissions can include HCl, HF, H<sub>2</sub>SO<sub>4</sub>, and Ammonia.

## Emissions Reporting

OcuGlass is not required to report its annual emissions to MAERS.

## Regulatory Analysis

Ocuglass is currently subject to PTI No. 49-19 for a glass-etching process consisting of ten dip tanks that exhaust through a wet scrubber to the atmosphere.

## Compliance History

This facility was issued a Rule 201 violation in 2019 for not having a PTI prior to the installation and operation of the acid-etch process tanks and wet scrubber system. The VN was resolved following the issuance of PTI No. 49-19 in April 2019.

## Inspection

On February 10, 2021, I (Michael Conklin) conducted a targeted inspection at OcuGlass in Calumet, MI. I arrived at the facility and met with Brad Aldrich, Chief Executive Officer for OcuGlass. I explained to Mr. Aldrich that the purpose of the inspection was to ensure compliance with PTI No. 49-19 and all other State Air Pollution Control Rules and federal regulations. The inspection began by reviewing records and documents that are required to be maintained on file and then we next proceeded to inspect the acid-etch process tanks and wet scrubber system.

OcuGlass is required to keep records of the pressure drop across the wet scrubber system on a daily basis. A records book is maintained on file at the facility that list the date, pressure reading (in H<sub>2</sub>O), pH level, and comments on any maintenance performed. The records reviewed indicate the pressure drop reading is staying consistent around 1.1 in WC. The facility is also required to maintain the SDS of each chemical used in the EUGLASSETCH process. Mr. Aldrich provided a book of each chemical SDS that the facility uses. The SDS provides the chemical composition, including the weight percent of each component.

While inspecting the duct work and the wet scrubber, there appeared to be no leaks. At the time of the inspection the differential pressure gauge was reading 1.0 in WC. The acid-etch process was in operation with only 8 out of 10 tanks filled. The venting and exhaust system appeared to be in satisfactory condition.

During the inspection, Mr. Aldrich mentioned they have plans of installing a second acid-etch line and having the additional line tanks be vented and exhausted to the same scrubber. I explained to Mr. Aldrich a modification to PTI No. 49-19 will be required since there will be an increase in process emissions.

### Compliance

Based on the inspection, it appears OcuGlass is in compliance with PTI No. 49-19 and all other State Air Pollution Control Rules and federal regulations.

Scrubber Readings

Date	Pressure Reading (Inches H <sub>2</sub> O)	pH Level	Wet Scrubber (Inches)	Comments
5/4/20	1.20	4		
5/11/20	1.10	3	TRS	pH 6.5 - 7.0
5/18/20	1.30	6		
5/25/20	1.50	6		
6/1/20	1.30	6		
6/8/20	1.20	5		
6/15/20	1.20	6		
6/22/20	1.10	4		
7/13/20	1.10	3	TRS	Spk from 2nd level
7/20/20	1.20	6		
7/27/20	1.20	6		
8/3/20	1.80	5		
8/10/20	1.30	5		
8/17/20	1.20	5		
8/24/20	1.10	4	TRS	pH 6.5 - 7.0
8/31/20	1.20	6		
9/7/20	1.20	6		
9/14/20	1.10	5	TRS	pH 6.5 - 7.0
9/21/20	1.20	7		
9/28/20	1.20	7		
10/5/20	1.10	6.5		
10/12/20	1.20	6.5		
10/19/20	1.00	6		
10/26/20	1.00	6		
11/2/20	1.10	6		
11/9/20	1.20	6		
10/1/20	1.00	6		

Image 1(Scrubber Log) : Records of pressure drop recordings on the wet scrubber.

Scrubber Readings



Date	Pressure Drop (Water @ 100)	pH level	100 Droppoff (Water)	Comments
10/26/00	1.0"	6.5		
10/27/00	1.0"	6.5		
10/28/00	1.0"	6.5		
10/29/00	1.0"	6.5		
10/30/00	1.0"	6.5		
10/31/00	1.1"	6.5		
11/1/00	1.1"	6.5		
11/2/00	1.1"	6.5		
11/3/00	1.1"	6.5		
11/4/00	1.1"	6.5		
11/5/00	1.1"	6.5		
11/6/00	1.1"	6.5		
11/7/00	1.1"	6.5		
11/8/00	1.1"	6.5		
11/9/00	1.1"	6.5		
11/10/00	1.1"	6.5		
11/11/00	1.1"	6.5		
11/12/00	1.1"	6.5		
11/13/00	1.1"	6.5		
11/14/00	1.1"	6.5		
11/15/00	1.1"	6.5		
11/16/00	1.1"	6.5		
11/17/00	1.1"	6.5		
11/18/00	1.1"	6.5		
11/19/00	1.1"	6.5		
11/20/00	1.1"	6.5		
11/21/00	1.1"	6.5		
11/22/00	1.1"	6.5		
11/23/00	1.1"	6.5		
11/24/00	1.1"	6.5		
11/25/00	1.1"	6.5		
11/26/00	1.1"	6.5		
11/27/00	1.1"	6.5		
11/28/00	1.1"	6.5		
11/29/00	1.1"	6.5		
11/30/00	1.1"	6.5		
12/1/00	1.1"	6.5		
12/2/00	1.1"	6.5		
12/3/00	1.1"	6.5		
12/4/00	1.1"	6.5		
12/5/00	1.1"	6.5		
12/6/00	1.1"	6.5		
12/7/00	1.1"	6.5		
12/8/00	1.1"	6.5		
12/9/00	1.1"	6.5		
12/10/00	1.1"	6.5		
12/11/00	1.1"	6.5		
12/12/00	1.1"	6.5		
12/13/00	1.1"	6.5		
12/14/00	1.1"	6.5		
12/15/00	1.1"	6.5		
12/16/00	1.1"	6.5		
12/17/00	1.1"	6.5		
12/18/00	1.1"	6.5		
12/19/00	1.1"	6.5		
12/20/00	1.1"	6.5		
12/21/00	1.1"	6.5		
12/22/00	1.1"	6.5		
12/23/00	1.1"	6.5		
12/24/00	1.1"	6.5		
12/25/00	1.1"	6.5		
12/26/00	1.1"	6.5		
12/27/00	1.1"	6.5		
12/28/00	1.1"	6.5		
12/29/00	1.1"	6.5		
12/30/00	1.1"	6.5		
12/31/00	1.1"	6.5		

Image 2(Scrubber Log (2)) : Records of pressure drop recordings on the wet scrubber.

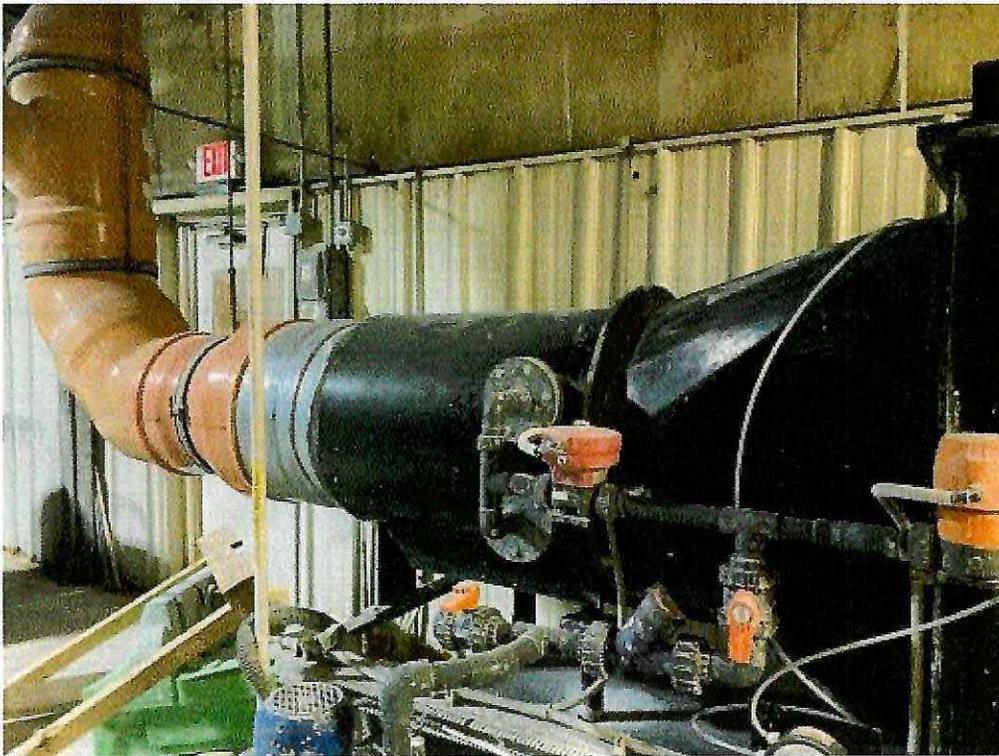


Image 3(Inlet Duct) : Scrubber and inlet duct.



NAME Michael Lohman

DATE 2/18/21

SUPERVISOR ESJ