### DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION ACTIVITY REPORT: Self Initiated Inspection

FV2015 INSP-

up, Inc.	SRN / ID: A5095
CLAWSON	DISTRICT: Southeast Michigan
X	COUNTY: OAKLAND
0	ACTIVITY DATE: 09/03/2015
COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
Creative Solutions Group, Inc.	
	CAWSON

A5095 - SAR- 2015 09 03

#### Creative Solutions Group, Inc. (A5095) 1250 N. Crooks Road Clawson, Michigan 48017-1047.

# A5095 reassigned (Feb 2011): Cargill Detroit Corporation (A5095), moved out before 2005 → Creative Solutions Group, Inc. (A5095)

# Rules 336.1285, 336.1287

On September 03, 2015, I conducted a level-2 self-initiated inspection of Creative Solutions Group, Inc. ("Creative") located at 1250 N. Crooks Road, Clawson, Michigan 48017-1047. The inspection was conducted to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994, PA 451; Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) administrative rules.

Cargill moved out of this building before 2005 and Creative moved in about 2005.

During the FY2015 inspection, Mr. James Shackelton (Phone: 248-288-9700 or 248-629-1983-Direct; Cell: 248-379-2237; Fax: 248288-0700; E-mail: jShackelton@csgnow.com), Purchasing Manager, assisted me.

Mr. John Collins (Phone: 248-288-9700; Fax: 248288-0700; E-mail: jwcollins@csgnow.com), Purchasing Manager, separated about August 2015.

Creative conducts trade shows with innovative exhibits and events. No graphic arts work at this location; all of it outsourced. Creative has PRISM machines (CNC machines), wood cutting / grinding machines, sandblast machines and two paint spray booths (one enclosed and one open).

#### Table and panel saws

Four table and one panel saws are present. Of four (4), three (3) are equipped with bag filters with in-pant exhaust recirculation. All bags are large collapsible bags. Of four (4) one (1) is equipped with a cartridge filter (Vortex Cone Particulate Separation System), which incorporates principles of cyclone separation. Due to vortex, the cartridge filter does not get clogged by large particles; only fines.

The wood cutting and grinding equipment are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285.

# **CNC Machine**

One CNC machine (CR ONSROD programmed with Master CAM) with two large bags for particulate filtration is present. Upon filtration exhaust is recycled into the plant. About March 2015, Creative enclosed the bags (2) in a small room for containment and installed additional filters for the exhaust from this enclosure room to improve indoor air quality. Upon filtration, exhaust is released to in-plant environment. The machine is exempt from Rule 336.1201(Permit-to-Install) pursuant to Rule 336.1285.

http://intranet.deq.state.mi.us/maces/WebPages/ViewActivityReport.aspx?ActivityID=2455... 9/9/2015

#### Mac Blast

One Mac Blast sand blast machine for small parts is present. Mac Blast machine is equipped with a filter canister. Upon filtration, exhaust is released to in-plant environment. The Mac sand blast machine is exempt from Rule 336.1201(Permit-to-Install) pursuant to Rule 336.1285.

#### Two Rule 287(c) paint spray booths

One (25 ft. Deep \* 15 ft. Wide \* 12 ft. Height) enclosed paint spray booth with back filters is present; intake air is also filtered to improve finish quality. One additional (5 ft. Deep \* 15 ft. Wide \* 12 ft. Height) open paint spray booth with back-draft filters is present as well. The enclosed booth is equipped with intake air filters as well to improve product quality / finish. I asked Mr. Shackelton to install the filters such that they fit, at all times, snug and tight without gaps and holes. I also asked him to keep records of paint and solvent usage. The paint and solvent usage records were not kept. The paint usage is much less than 200 gallons per month as they are non-production booths (2). About 20 gallons per month of paint is used. Both solvent and water based coatings are used.

The booths (2) are exempt from Rule 336.1201 pursuant to Rule 336.1287(c).

In the booths, metal structures and parts used in displays in trade shows are painted.

#### Metal cutting saw

In October 2012, Creative installed one metal cutting saw. The saw is not equipped with exhaust filters. However, air contaminants are not discharged to outside ambient air. As metal particles are large, the particles settle in the immediate vicinity, which I observed. The saw is exempt from Rule 336.1201(Permit-to-Install) pursuant to Rule 336.1285.

# Wedding machines (3)

About December 2014, Creative installed three wedding machines: two (2) stationary and one (1) mobile / portable. All are argon welding machines. Argon is an inert gas used to shield electric arc from outside contaminants. Two fixed (not one portable) machines are equipped with Miller capture hoods (2) and Miller cartridge filters (2). The cartridge filters are cleaned using vibration. Each cartridge filter is equipped with a pressure gauge to measure pressure differential ( $\Delta P$ ). Based upon  $\Delta P$ , each Miller machine initiates self-cleaning cycle using vibration.

The machines are exempt from Rule 336.1201(Permit-to-Install) pursuant to Rule 336.1285(i).

#### Conclusion:

**A5095** reassigned (Feb 2011): Cargill Detroit Corporation (A5095) → Creative Solutions Group, Inc. (A5095). All processes are exempt from Rule 336.1201(Permit-to-Install) pursuant to either Rule 336.1285 or Rule 336.1287  $\int \int \int d^{-1} dx$ 

CHAMALAN DATE 09/09/2015 SUPERVISOR NAME