

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Scheduled Inspection

N256342754

FACILITY: CAL GRINDING INC		SRN / ID: N2563
LOCATION: 2525 14TH AVE, ESCANABA		DISTRICT: Upper Peninsula
CITY: ESCANABA		COUNTY: DELTA
CONTACT: RONALD BEAUCHAMP PE , ENGINEERING MANAGER		ACTIVITY DATE: 12/20/2017
STAFF: Sydney Bruestle	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled onsite inspection to verify compliance with PTI 235-92A, PTI 343-08A, and all other applicable state and federal air quality regulations		
RESOLVED COMPLAINTS:		

On December 20, 2017 I (Sydney Bruestle) performed an onsite inspection of Cal Grinding located at 1401 N 26th St Escanaba, MI 49855. While onsite I met with Ron Beauchamp, Engineering Manager at Cal Grinding. Mr. Beauchamp gave me a tour of the facility, and overview of the processes onsite, provided me with all required records.

**Facility/Process Description:**

Cal Grinding accepts used engine valves from companies such as Caterpillar and Cummings and refinishes them. The facility has a standard process for refinishing the valves. First the valves are baked at 1600-1700 degrees Fahrenheit to remove (bake off) carbon build up and oil. Next the valves are resurfaced in center less grinders and sanding machines. Then the valves are chrome plated on one of two chrome plating lines. These lines contain several chromic acid baths in series with mounted lead anode compartments to house each valve. Each plating line operates a scrubber composed of a multistage composite mesh pad system and fourth stage HEPA filter system. There is an interlock system on each line that does not allow electric current to the baths without proper operation of each scrubber system. When the differential pressure of each HEPA filter reached greater than 2.5 inches water column an alert is triggered, and the filters are changed. After chrome plating the valves are quickly baked in a small oven at 400 degrees Fahrenheit to remove any trapped hydrogen gas between chrome layers. Before being shipped out, the valves are inspected again and sanded for a smooth finish.

**Regulatory Summary:**

***PTI 235-92A:***

PTI 235-92A is for the heat cleaning oven used to burn off excess carbon build up on the engine valves. Special Condition (SC) 13 states the oven shall not exceed a 6-minute average of 20% opacity. When I arrived onsite the facility was operating the oven, there were no visible emissions coming from the stack. SC 14 requires the afterburner attached to the oven to maintain a minimum temperature of 1500 degrees Fahrenheit and a minimum retention time of 0.5 seconds while the heat cleaning oven is operated. Mr. Beauchamp showed me records for the afterburner temperature. The afterburner temperature was never less than 1600-1700 degrees Fahrenheit while the heat cleaning oven operated.

***PTI 343-08A:***

PTI 343-08A is for two hard electroplating tanks (EUCHROME A and EUCHROME B). Each tank has its own multi stage composite mesh pad scrubber system, fourth stage HEPA filters, and plastic beads. The mesh pad scrubbers are interlocked with the rectifiers (1200 amps) in each tank system to prevent tank operation without proper emission control. The tanks will not receive an electric current unless the mesh pad scrubber system is operating properly. The plastic beads are used on the surface of each tank to reduce fumes and evaporation (SC IV. 1.). The facility does not use any chemical fume suppressants. The mesh pad scrubber system is equipped with a differential pressure monitor (SC IV. 2.), values are being recorded daily (SC VI. 1.a). The HEPA filters are changed when the differential pressure exceeds 2.5 inches WC. Beauchamp was able to show me records of the differential pressure and scrubber system inspections/maintenance (SC VI. 1-3).

Cal Grinding is subject to 40 CFR Part 63 subpart N. They do not use PFOS or non-PFOS fume suppressant chemicals onsite.

Cal Grinding appears to be in compliance with PTI 343-08A, PTI 235-92A, and all other applicable state and federal air quality regulations.

NAME 

DATE 1/8/18

SUPERVISOR 