

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

N768836729

FACILITY: Dicastal North America, Inc.		SRN / ID: N7688
LOCATION: 1 and 2 Solar Parkway, GREENVILLE		DISTRICT: Grand Rapids
CITY: GREENVILLE		COUNTY: MONTCALM
CONTACT: Mike James , Plant Engineer		ACTIVITY DATE: 09/22/2016
STAFF: Eric Grinstern	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Compliance Inspection		
RESOLVED COMPLAINTS:		

Dicastal North America Inc. (SRN: N7688)

### FACILITY DESCRIPTION

Dicastal North America Inc. is located in the city of Greenville, in Montcalm County. The facility is an aluminum alloy wheel manufacturing operation.

### REGULATORY ANALYSIS

The stationary source has as opt-out permit (No. 78-15C) that covers all permitted processes.

At the time of the inspection the facility had installed and was operating the processes associated with wheel coating. The facility will be installing and operating an aluminum alloy wheel casting operation next year. The wheels that are currently coated at the facility are produced at another location. This inspection only addressed the permitted processes that were installed and operating.

### COMPLIANCE EVALUATION

At the facility, AQD staff consisting of Eric Grinstern and Jeremy Howe, TPU-AQD, met with Mike James, Plant Engineer, and Bret Venneman, Process Engineer. On the day of the compliance inspection, the facility was conducting performance testing to demonstrate compliance with the permitted capture and destruction efficiency for the coating operations.

Below is a compliance evaluation of processes in operation.

EU-Pretreatment

**DESCRIPTION:** Wheel surface preparation consisting of degreasing tanks (3), acidic, passivation and sealant tanks, which will be spray apply acidic or alkaline solutions to degrease (remove the machining fluid) and prepare the surface for proper coating adhesion to the aluminum. During various steps in the surface preparation process, water will be used to rinse off the alkaline and acidic solutions.

**Observations:** The pretreatment line is an enclosed system that is located adjacent to the painting operations. The facility has a Lab Tech that oversees the pretreatment line. The pretreatment line had excellent housekeeping practices, with not spills or odors observed.

### Permit Requirements Evaluated:

Requires monthly and 12-month rolling time period records of acid and degreasing solvent additions.

-The facility provided copies of acid and degreasing additions from the start of the process until current.

#### EU-PretreatOven

**DESCRIPTION:** 7.6 MMBtu/hr Natural Gas Combustion Oven for removing the surface moisture on the wheels the surfaces that have been treated.

**Observations:** After the wheels are processed through the pretreatment surface preparations they are conveyed through the pretreatment oven.

#### **Permit Requirements Evaluated:**

The primary requirement for the pretreat oven is the limited heat input capacity of 7.6 MMBtu per hour and NOx emission rate guarantee from the manufacture.

#### EU-PaintShopBlr

**DESCRIPTION:** 11.2 MMBtu/hr Natural gas Combustion Paint Shop Boiler

**Observations:** The Paint Shop boiler is located adjacent to the paint line thermal oxidizer. Observation of the manufacture specification plate showed a Btu rating of 10,500,000.

#### **Permit Requirements Evaluated:**

The permittee shall burn only pipeline quality natural gas in EU-PaintShopBlr.

- No other fuel supply was observed during the inspection, the facility supplied natural gas usage records for the boiler.

The maximum design heat input capacity for EU-PaintShopBlr shall not exceed 11.2 MMBtu per hour on a fuel heat input basis.

- Rating plate listed 10.5 MMBtu

The permittee shall submit notification of the date of construction and actual startup of EU-PaintShopBlr in accordance with NSPS 40 CFR 60.7.

- Submitted on November 30, 2015

#### EU-LiquidCoat

**DESCRIPTION:** One Base liquid coating booth and one Clear liquid coating booth, each utilizing high volume low pressure (HVLV) or comparable applicators, associated flash off tunnels, and one 2.6 MMBtu/hr Natural Gas Combustion Curing Oven. The VOC emissions from this line will be controlled by Non-Fugitive Enclosure (NFE) and a recuperative thermal oxidizer (TO). The particulate emissions controlled by water spray.

**Permit Requirements Evaluated:**

The emissions of VOC, Heavy aromatic solvent naphtha, Mixed Xylenes, Butyl carbitol, Formaldehyde, Naphthalene.

- Compliance with the VOC emission limit is based on compliance testing and proper operation of the thermal oxidizer. Compliance testing was occurring the day of the inspection. Compliance with the Heavy aromatic solvent naphtha, Mixed Xylenes and Butyl carbitol emission limit is demonstrated via the facility recording daily usage of each material.

The facility is required to install and operate a thermal oxidizer with a minimum VOC destruction efficiency of 95% and maintain a minimum temperature of 1292 degrees F (700 degrees C).

- The temperature of the thermal oxidizer was 726 degrees C at the time of the inspection. Testing was occurring at the time of the inspection to determine destruction efficiency.

The facility is required to operate EU-LiquidCoat in non-fugitive enclosure.

- The facility has installed pressure drop gages to verify and demonstrate negative pressure in the bake oven, liquid base coat and liquid clear coat booths.

Within 60 days after of permit issuance, the permittee shall verify the destruction efficiency of the thermal oxidizer, by testing at owner's expense, in accordance with Department requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. (R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040 (5))

- Testing was being conducted the day of this inspection.

The permittee shall keep the following information on a monthly basis for the EU-LiquidCoat:

- a) Gallons (with water) of each material (coatings, reducers, thinners, cleaning solvents, etc.) used and reclaimed.
- b) VOC content (with water) of each material as applied.
- c) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
- d) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

- The facility supplied records demonstrating compliance with the above requirements.

The permittee shall keep the following information on a daily basis for the EU-LiquidCoat:

- a) Gallons (with water) of each heavy aromatic solvent naphtha (CAS No. 64742-94-5), mixed xylene (CAS No. 1330-20-7), and butyl carbitol (CAS No. 112-34-5) containing material used.
- b) Where applicable, the gallons (with water) of each heavy aromatic solvent naphtha (CAS No. 64742-94-5), mixed xylene (CAS No. 1330-20-7), and butyl carbitol (CAS No. 112-34-5) containing material reclaimed.

- The facility supplied records demonstrating compliance with the above requirements.

The permittee shall keep the following information on a monthly basis for the EU-LiquidCoat:

- a) Gallons (with water) of each formaldehyde (CAS No. 50-00-0) and naphthalene (CAS No. 91-20-3) containing material used.
- b) Where applicable, the gallons (with water) of each formaldehyde (CAS No. 50-00-0) and naphthalene (CAS No. 91-20-3) containing material reclaimed.
- c) The formaldehyde (CAS No. 50-00-0) and naphthalene (CAS No. 91-20-3) content (with water) in pounds per gallon or weight percent of each material used.
- d) Formaldehyde (CAS No. 50-00-0) and naphthalene (CAS No. 91-20-3) mass emission calculations

determining the monthly emission rate in tons per calendar month.

- e) Formaldehyde (CAS No. 50-00-0) and naphthalene (CAS No. 91-20-3) mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
- f) The heavy aromatic solvent naphtha (CAS No. 64742-94-5), mixed xylene (CAS No. 1330-20-7), and butyl carbitol (CAS No. 112-34-5) content (with water) in pounds per gallon or weight percent of each material used.
- g) Heavy aromatic solvent naphtha (CAS No. 64742-94-5), mixed xylene (CAS No. 1330-20-7), and butyl carbitol (CAS No. 112-34-5) mass emission calculations determining the mass emission rate in pounds per calendar day based on daily usages recorded in SC VI.4.

- The facility supplied records demonstrating compliance with the above requirements.

#### EU-BrushingBurr

**DESCRIPTION:** 12 Brushing Burr Machines controlled by a common fabric filter.

Permit Requirements Evaluated:

Requires the facility to install and operate a fabric filter collector for the emission unit and record the pressure drop daily.

- The facility provided copies of the daily records of pressure drop readings.

#### EU-Gen1

**DESCRIPTION:** A 1,500 kilowatt (kW) or smaller diesel-fueled emergency engine with a model year of 2006 or later, and a displacement of less than 30 liters/cylinder. This emergency engine is subject to the New Source Performance Standards Stationary for Reciprocating Internal Combustion Engines (RICE), combustion ignition, emergency RICE less than 3000 HP.

The permittee shall monitor and record the total hours of operation and the hours of operation during non-emergencies for EU-Gen1, on a monthly and 12-month rolling time period basis, in a manner acceptable to the District Supervisor, Air Quality Division. The permittee shall document how many hours are spent for emergency operation of EU-Gen1, including what classified the operation as emergency and how many hours are spent for non-emergency operation. (R 336.1205(1)(a) & (3), 40 CFR 60.4211, 40 CFR 60.4214)

- The facility supplied records of hours of operation

#### FGFACILITY

1. Each Individual HAP	Less than 8.9 tpy *	12-month rolling time period as determined at the end of each	FGFACILITY	SC VI.2	R 336.1205(3)
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		calendar month			
2. Aggregate HAPs	Less than 22.5 tpy *	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205(3)

The permittee shall keep the following information on a monthly basis for FGFACILITY:

- a) Gallons or pounds of each HAP containing material used.
- b) Where applicable, gallons or pounds of each HAP containing material reclaimed.
- c) HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
- d) Individual and aggregate HAP emission calculations using a mass balance approach and emission factors as approved by the AQD District Supervisor for determining the monthly emission rate of each in tons per calendar month.
- e) Individual and aggregate HAP emission calculations using a mass balance approach and emission factors as approved by the AQD District Supervisor for determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month. For the first month following permit issuance, the calculations shall include the summation of emissions from the 11-month period immediately preceding the issuance date. For each month thereafter, calculations shall include the summation of emissions for the appropriate number of months prior to permit issuance plus the months following permit issuance for a total of 12 consecutive months.

- The facility provided records demonstrating compliance with the emission limits and record keeping requirements for FGFACILITY.

Based on the information and observations made during this inspection, the facility is in compliance with applicable air quality rules and regulations.

NAME



DATE

9/28/16

SUPERVISOR

