

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

N312842362

FACILITY: Tribal Manufacturing, Inc.		SRN / ID: N3128
LOCATION: 450 LEGGIT RD, MARSHALL		DISTRICT: Kalamazoo
CITY: MARSHALL		COUNTY: CALHOUN
CONTACT: David Kilbourn , Facilities Manager		ACTIVITY DATE: 11/08/2017
STAFF: Rex Lane	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: Self Initiated Inspection		
RESOLVED COMPLAINTS:		

On November 8, 2017, Air Quality Division (AQD) staff (Rex Lane and Cody Yazzie) arrived at Tribal Manufacturing, Inc. (hereafter TMI) located at 450 Leggitt Road, Marshall, Michigan at 9:10 am to conduct an unannounced air quality inspection. Staff made initial contact with the office receptionist and provided her with a business card and stated the purpose of the visit. Mr. David Kilbourn, TMI, Facilities Manager, arrived shortly thereafter and took staff to a conference room for further discussions.

The prior business at this location, Marshall Brass closed in 2008 and TMI purchased the plant and its equipment in late 2008/early 2009. The facility originally manufactured brass fittings from billets and rod for natural gas and LP gas equipment however this business was eventually lost to China. The facility now manufactures primarily plumbing fixtures such as tees, elbows and components used with flexible PEX plumbing service lines. TMI has about 80 employees and operates two 10-hour shifts/day Monday through Friday with an occasional Saturday if demand warrants. Most manufactured parts are made from purchased no-lead content brass (aka Eco Brass or Green Dot) billet or rod. About 20% of manufactured parts are made from purchased low-lead brass (Blue Dot) or tin-bronze alloy billet or rod. TMI's parent company is the Sioux Chief company based out of Peculiar, Missouri.

TMI was last inspected by the AQD on 11/27/07 and was determined to be compliant at that time. Staff asked and Mr. Kilbourn stated that the facility does not have any boilers (other than for the alkaline cleaning system) or emergency generators.

Mr. Kilbourn gave staff a tour of the facility. Required personal protective equipment is safety glasses and ear plugs (in certain areas of the facility). Staff observations and review of records provided during and following the inspection are summarized below:

Metal Working/Finishing Equipment:

The facility currently has thirty-six screw machines, nine hydromat rotary machines and nine CNC machines. The facility also recently installed a self-contained sand blast cabinet. The listed equipment is exempt from air use permitting requirements under either Rule 285(2)(l)(vi) (B) or (C). Some of the newer machines are equipped with small centrifuges to collect cutting oil and do not vent to the larger fabric collectors. Most of the metal working machines exhaust oil mist to one of two elevated fabric filter collectors located on the inside North and South wall of the facility that vent externally. Mr. Kilbourn stated that the fabric filters in each collector are changed out on an annual basis. Both fabric filter collectors were equipped with magnehelic differential pressure gauges. The north collector gauge was pegged left at 0" water column (wc) and the south collector gauge appeared to be at 1.5" wc. Staff asked Mr. Kilbourn to have maintenance look at the pressure gauge on the north filter collector to see if it has been accidentally disconnected or needs to be replaced since the normal operating range for most fabric filter collectors would be about 1 – 8" wc. Mr. Kilbourn said he would have it checked out and that the collector must be running because oil smoke would build up inside the plant if it wasn't operating. On 11/13/17, Mr. Kilbourn notified staff via email that their fabric filter

vendor, LaPine came out and inspected the north fabric filter collector and determined that the filters were good and that either the pressure tap lines were plugged or the gauge needed to be replaced and that this work will be completed the week of November 20<sup>th</sup>.

#### Brass Turnings/Chip Collection System:

The facility has separate collection systems for the green dot no-lead brass turnings, chips and bar ends and for the blue dot low-lead brass material since the green dot brass scrap is much more valuable. Some machines discharge their oily turnings and chips to an in-floor conveyor while most machines are equipped with a turnings and chips storage container. The blue dot brass turnings are sent to a dedicated centrifuge to remove excess cutting oil and are then bulk stored in a tractor trailer until it is shipped back to the recycler. The green dot brass turnings are sent to another dedicated centrifuge to remove excess oil and then are stored in drums until it is shipped back to the recycler.

#### Cold Cleaners/Parts Washer:

The facility has eight cold cleaners in the production area that use Safety Kleen Premium Gold Solvent (SDS provided – 100% light hydrotreated petroleum distillate) and one cold cleaner in the maintenance area that uses a citrus based solvent. The cold cleaners had closed lids while not in use and staff provided Mr. Kilbourn with several MDEQ cold cleaner use instruction labels to post on the units. The cold cleaners are exempt from air use permitting requirements under Rule 281(2)(h). The facility has a standalone parts washer in the easternmost production area that uses three different cleaning products; Bea-Lime Green, Jack Hammer and Citri Brite II per the facility's 11/14/17 email (see attached). The parts washer is exempt from air use permitting requirements under Rule 285(2)(r)(iv).

#### Alkaline Cleaning System:

The facility has a four-tank alkaline cleaning line to remove residual oil from all manufactured parts. Parts are loaded into basket strainers and dipped into two 500-gallon tanks that contain a heated alkaline based cleaning solution followed by two 500-gallon rinse tanks. The cleaning line is exempt under Rule 285(2)(r)(iv). A 1.0 MMBtu/hour natural gas fired boiler that is registered and inspected (last date – 11/11/16) by the Michigan Dept. of Licensing and Regulatory Affairs is used to provide heat to the cleaning line. The boiler is exempt under Rule 282(2)(b)(i). Accumulated oils are skimmed off the alkaline tanks and stored in containers and periodically shipped off-site as waste.

#### Wastewater Evaporator:

The facility was issued Permit to Install (PTI) No. 677-92 for a SAMSCO Series 400 Wastewater Evaporator to evaporate water from the spent cleaning solutions in Tanks 1-2 of the alkaline cleaning system listed above. The evaporator is equipped with a readout panel that lists high temperature and high/low liquid level indicator alarms as required by their air permit, special condition 18. The unit appeared to be in operation during the inspection and the readout panel does not display an operating temperature. Special condition 17 states that the operating temperature of the water evaporator shall not exceed 220 degrees F. Compliance with special condition 17 was verified by the company following the inspection (see attached email). Special condition 16 requires the facility to maintain monthly records of the gallons of wastewater processed. During the post-inspection meeting, Mr. Kilbourn stated that Tanks 1-2 are emptied and processed through the wastewater evaporator not less than once every six weeks and not more than once every three weeks (i.e. higher frequency = higher plant production rate) and evaporated to 50% of its original volume and then shipped off-site as waste. This would equate to a maximum of 1,000 gallons wastewater processed every three to six weeks. Weekly records (attached) were provided for the month of October that shows when the tanks are cleaned out and new cleaning solution is added. Mr. Kilbourn agreed to develop a new recordkeeping form to more accurately track the amount of wastewater fed into the evaporator on a monthly basis.

The facility was considered potentially subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63, Subpart XXXXXX prior to the unannounced inspection. The NESHAP applies to area sources of hazardous air pollutants in nine metal fabrication and finishing source categories, including valves and pipe fitting not elsewhere classified. Under the Toxic Release Inventory system, the facility reports that their industrial classification code (NAICS) is 332721. This NAICS code is not included in the SIC/NAICS applicability list. Therefore, the facility does not appear to be subject to NESHAP, Subpart XXXXXX at this time.

At the time of the inspection and based on a review of records obtained during or following the inspection, the facility appears to be in compliance with PTI No. 677-92 and applicable state and federal air regulations. -RIL

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