

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

U44141429632856

FACILITY: North Branch Sandblasting		SRN / ID: U441414296
LOCATION: 3816 Five Lakes Road, N. Branch		DISTRICT: Lansing
CITY: N. Branch		COUNTY: LAPEER
CONTACT: Scott Mroz, Proprietor		ACTIVITY DATE: 01/07/2016
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: <b>MINOR</b>
SUBJECT: Inspection of sandblasting and repainting operation.		
RESOLVED COMPLAINTS:		

On 1/7/2016, the DEQ, AQD conducted a self-initiated inspection of North Branch Sandblasting.

Facility environmental contact: Scott Mroz, Sr., Proprietor: 810-969-5854

**Source description:**

North Branch Sandblasting removes paint from pieces of machinery, including farm equipment, which are then repainted.

Emission unit* description	Permit to install exemption rule	Compliance status, at time of inspection
Sandblasting process, conducted inside tarped enclosure	Rules 281(d) and/or 285(l)(vi) (B)	Compliance
Painting process, conducted inside pole barn	Rule 287(c)	Compliance

\* An *emission unit* is any part of a stationary source that emits or has the potential to emit an air contaminant.

**Regulatory overview:**

This facility is considered to be a true *minor source*, rather than a *major source*. A major source has the potential to emit (PTE) of 100 tons per year (TPY) or more, of one of the criteria pollutants. *Criteria pollutants* are those for which a National Ambient Air Quality Standard exists, and include carbon monoxide, nitrogen oxides, sulfur dioxide, volatile organic compounds (VOCs), lead, particulate matter smaller than 10 microns, and particulate matter smaller than 2.5 microns. PTE for the painting process onsite is limited to a throughput of 200 gallons per month by the Rule 287(c) permit exemption. This equates to a PTE of 6 TPY of VOC for the painting process.

North Branch Sandblasting is considered a minor or *area source* for Hazardous Air Pollutants (HAPs), because it is not considered to have a PTE of 10 TPY or more for a single HAP, nor to have a PTE of 25 TPY or more for combined HAPs. This is because maximum HAPs PTE for a painting process under Rule 287(c) is 6 TPY.

Because the facility is a true minor, and not a major source of HAPs, it is not subject to 40 CFR Part 63, Subpart M, the National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Miscellaneous Metal Parts and Products.

It is unknown if the facility is subject to 40 CFR Part 63, Subpart H, Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, which is also known as the area source Maximum Achievable Control Technology (MACT) for coating operations. A facility is subject to this regulation if they meet certain criteria, including the use of coatings containing the HAPs (compounds of cadmium, chromium, lead, nickel, and manganese) which are targeted by the MACT. The AQD has not been delegated authority from the U.S. Environmental protection Agency to enforce this regulation. Information on this regulation was provided to the company as an attachment to a 12/3/2014 letter from AQD, so that they may determine whether or not they are subject.

The company's intent is to utilize exemptions from the requirement of Michigan Air Pollution Control

**Rule 201 to obtain a permit to install for the sandblasting process and their painting process.**

**The sandblasting process may qualify for either the Rule 281(d) exemption, or the Rule 285(l)(vi)(B) exemption. Rule 281(d) exempts from the requirement to obtain a permit to install:**

(d) Portable blast-cleaning equipment equipped with appropriately designed and operated enclosure and control equipment.

**Rule 285(l)(vi)(B) exempts from the requirement to obtain a permit to install:**

(vi) Equipment for carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, sand blast cleaning, shot blasting, shot peening, or polishing ceramic artwork, leather, metals, graphite, plastics, concrete, rubber, paper stock, wood, or wood products which meets any of the following:  
(B) Equipment has emissions that are released only into the general in-plant environment.

**The painting process may qualify for the Rule 287(c) exemption, which exempts:**

(c) A surface coating line if all of the following conditions are met:  
(i) The coating use rate is not more than 200 gallons, as applied, minus water, per month.  
(ii) Any exhaust system that serves only coating spray equipment is supplied with a properly installed and operating particulate control system.  
(iii) Monthly coating use records are maintained on file for the most recent 2-year period and are made available to the air quality division upon request.

**Another Michigan Air Pollution Control Rule applicable to this facility is Rule 301(a), which regulates the opacity of visible emissions, as follows (opacity is the degree to which an emission reduces the transmission of light or obscures an observer's view):**

Rule 301. (1) Except as provided in subrules (2), (3), and (4) of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:  
(a) A 6-minute average of 20% opacity, except for 1 6-minute average per hour of not more than 27% opacity.

**Michigan Air Pollution Control Rule 901 prohibits nuisance situations, as follows:**

R 336.1901 Air contaminant or water vapor; prohibition.

Rule 901. Notwithstanding the provisions of any other rule, a person shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:

(a) Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.  
(b) Unreasonable interference with the comfortable enjoyment of life and property.

**Fee status:**

**This facility is not considered fee-subject, for the following reasons. Because it is not a major source for criteria pollutants, it is not classified as Category I. Additionally, because it is not a major source for Hazardous Air Pollutants (HAPs), and is not subject to federal New Source Performance Standards, it is not classified as Category II. Finally, because it is not subject to federal Maximum Achievable Control Technology standards, it is not classified as Category III. The facility is not required to submit an annual air emissions report via the Michigan Air Emissions Reporting System (MAERS). The threshold for a facility to be required to report to MAERS is typically considered to be VOC emissions of 10 TPY or**

more. This facility's potential VOC emissions from painting are only 6 TPY, however.

#### Location:

The facility is located in a rural residential setting, in Arcadia Township, Lapeer County. There is a residence on the property, and a pole barn structure, near the southern edge of the site. The sandblasting is conducted inside a tarped enclosure, located against the east wall of the pole barn. The approximate distance from the pole barn to the nearest residences, based upon a satellite image, is 200 feet to the northwest, 225 feet to the east, 200 feet to the southeast, 100 feet to the southwest, and 200 feet to the west.

#### History:

For air pollution complaints of businesses being operated in a residential area, AQD's complaint response procedures are to refer the complaint to the local building department, to determine if they are a properly licensed and zoned business. If they are, AQD policy is to work with the local officials to resolve.

On 11/18/2014, AQD began to receive complaints regarding this facility, under its current operator. These complaints concerned both fugitive dust from sandblasting, noise, and hours of operation.\* AQD initially advised the township of the complaints, per AQD procedures referenced above. I was informed that the township was considering this as a hobbyist operation, rather than a business. AQD began conducting investigations of the dust complaints.

\*AQD does not regulate noise, and refers such complaints to the local unit of government. The primary complainant has been advised of this. Also, AQD does not regulate hours of operation, and considers this to be a local zoning issue.

AQD considers this to be a feud situation, where two parties in a residential neighborhood have an apparent disdain for one another. Both sides have threatened lawsuits. AQD policy is to not become involved in neighborhood feuds. However, it is also AQD policy to work with the local unit of government where a business is zoned or licensed to operate\*\* in a residential area.

\*\*AQD has had discussions with the township. On 6/8/2015, the company received a variance (please see attached) from Arcadia Township, to operate out of their current location, for the next 3 years.

From 11/18/2014 through 1/7/2016, AQD received 25 air pollution complaints regarding this facility. Since autumn 2014, AQD has visited the facility on 7 occasions, and driven by the site 2 additional times, to check for fugitive dust. These field activities have not found any instance of noncompliance, although AQD staff had never seen the equipment operate, until today. On 5/5/2015, an Open Burning Notification was sent to the company, following receipt by AQD of an open burning complaint. This letter provided notice to the facility that a complaint had been received by AQD, and contained information/guidance on Michigan Air Pollution Control Rule 310, which regulates open burning.

#### Arrival:

I arrived at 12:13 PM. Weather conditions were cloudy, humid, and 41 degrees F, with no breeze. I did not see any fugitive dust, upon arrival. I met with Mr. Scott Mroz, Sr., Proprietor. Arrangements had been made in advance to have me come out at the site, at a time when the sandblast process would be running. My previous 6 site visits and 2 drive by checks for fugitive dust had been unannounced, but I was unsuccessful in my attempts to observe the equipment when it was running. Therefore, arranging this site visit in advance was seen as necessary.

I provided a copy of the DEQ brochure *Environmental Inspections: Rights and Responsibilities*, per AQD procedure. I did not provide a copy of the DEQ's Boiler MACT card, which provides information on the federal MACT regulation for boilers, as the pole barn, to the best of my knowledge, is unheated.

Mr. Mroz provided me with a written FOIA request, for any documentation we may have on file about North Branch Sandblasting. The following day, 11/8/2016, I scanned this request, and forwarded it to [deqfoia@michigan.gov](mailto:deqfoia@michigan.gov) to be processed.

#### Inspection:

##### Sandblasting process; Rules 281(d) and/or 285(l)(vi)(B):

Before sandblasting began, we walked around the pole barn. There were overlapping blue tarps on the east wall of the enclosure, and a gray tarp or tarps on the south wall and roof of the enclosure. He explained that, over time, he has made numerous improvements to the enclosure, based upon his observations of which changes have or have not worked, for dust control, and that he has made adjustments, accordingly. He has shown me a number of these adjustments, during previous visits, as documented in previous activity reports. The tarps appeared to conform to the walls of the enclosure, and he showed me that their lower edges were weighted down, to prevent the tarps from blowing, under windy conditions.

Mr. Mroz showed me their compressor, which was running. It uses the same size engine as a John Deere tractor, I was informed. The exhaust appeared to have no visible emissions.

Today's project was to be a mini-excavator, I was informed. Around 12:20 PM, Mr. Mroz's son began to sandblast, within the enclosure. During the inspection, the sandblasting took place over a period of about 40 minutes. I saw very little, if any, visible emissions from the tarped enclosure. Photos 1 and 2 show the enclosure before sandblasting began. Photos 3 through 5 show the enclosure during sandblasting.

At this time, the sandblasting process appeared to satisfy the exemption criteria for Rule 285(l)(vi)(B), for sandblasting emissions released into the general, in-plant environment. The tarped enclosure is a short term method to address complaints, but it should be noted that the long term solution for this situation is a permanent, closed structure.

To verify that the sandblasting process was actually operating, Mr. Mroz opened a flap on the north tarp wall, and showed me the inside of the enclosure. The fugitive dust cloud inside was so dense, that I could not see the opposite wall. This indicated opacity was 100% inside the enclosure, yet very little dust had escaped today.

The driveway is comprised of sand, and was mostly covered by snow. I did not observe anything that I could recognize as trackout of waste sand from the sandblasting enclosure. Mr. Mroz indicated that they are keeping the waste sand inside the enclosure, and they will remove it in the spring, load it into a waste container, and take it to a landfill, for disposal.

I asked Mr. Mroz about his search for sand for sandblasting that is free of silica. He explained that all of the sand types he has come across so far do have a silica content, but a very low amount. He informed me that he had located a source for a sand with an exceptionally low silica content, but that quarry has shut down. The only silica free product he has seen so far is "Black Beauty," which is economically out of reach for him, right now, he said.

##### Painting process; Rule 287(c):

The painting process was not operating, at this time. Mr. Mroz explained that he typically uses about 1 gallon of paint for doing an average repainting project, and about 6 total gallons per month. This is well below the Rule 287(c) threshold of 200 gallons per month. I informed him that he will need to keep records of monthly paint and solvent usage, which he agreed to.

Mr. Mroz pointed out two pieces of freshly painted equipment onsite, shown in the attached photo 6, which he said were average-sized projects.

**Conclusion:**

I did not observe any instances of noncompliance. During operations today, the tarped enclosure appeared to satisfy the Rule 285(l)(vi)(B) exemption criteria, for sandblasting where emissions are released into the general, in-plant environment. However, the tarped enclosure is not a long term solution, and a more permanent enclosure should be sought. Mr. Mroz has informed me that he is planning to install such an enclosure, but the timeline is uncertain. It is my understanding that building a permanent structure will require approval from Arcadia Township.

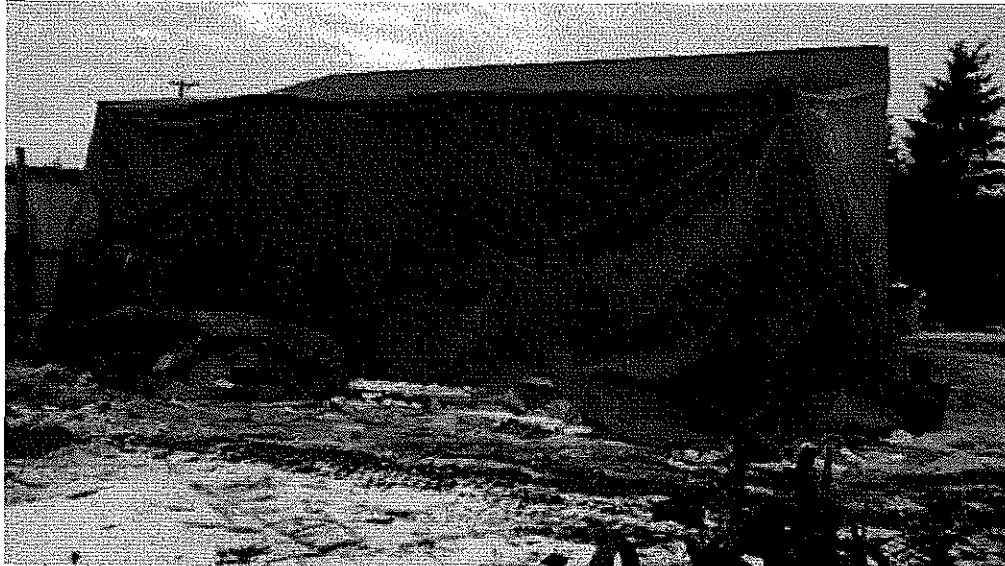
This issue is considered by AQD to involve a feud, where there are two parties in a residential neighborhood, with a history of apparent disdain for one another. Both parties have threatened lawsuits. AQD policy is to not become involved with feuds. However, it is also AQD policy to work with local units of government to resolve instances of zoned or licensed businesses operating in a residential area. Therefore, AQD will continue to follow up on complaints, as time and resources allow. This will include unannounced visits to the site, when possible. AQD will attempt to verify if any dust is escaping from the enclosure. If any dust is seen escaping, the Rule 285(l)(vi)( B) exemption will not be met, and the company will need to either obtain an air use permit for the sandblasting process, or install a complete enclosure.



Image 1(Photo 1) : South side of enclosure, looking north.



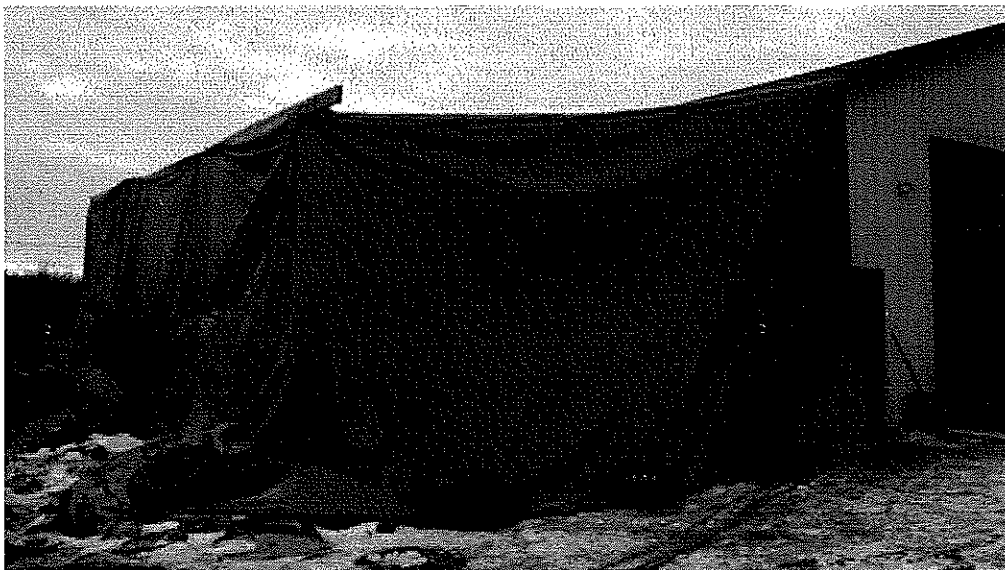
**Image 2(Photo 2)** : Closer view of same scene.



**Image 3(Photo 3)** : East side of enclosure.



**Image 4(Photo 4) :** North corner of east wall.



**Image 5(Photo 5) :** North wall.



**Image 6(Photo 6) :** Examples of completed projects.

NAME *[Signature]*

DATE *2/2/2016*

SUPERVISOR *B.M.*