

N7885  
manila  
Genesee

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

N788547377

FACILITY: RJ Torching, Inc.		SRN / ID: N7885
LOCATION: G-5167 N DORT HWY, FLINT		DISTRICT: Lansing
CITY: FLINT		COUNTY: GENESEE
CONTACT: Doug Adams , Yard Manager		ACTIVITY DATE: 12/21/2018
STAFF: Daniel McGeen	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Investigation of 12/20/2018 complaint alleging burning of metals, plastic, and rubber.		
RESOLVED COMPLAINTS:		

On 12/21/2018, the Michigan Department of Environmental Quality (DEQ), Air Quality Division (AQD) conducted an unannounced, scheduled inspection of RJ Torching. This was in response to a complaint received the previous afternoon, which alleged burning of metals, plastic, and rubber, emitting fumes and smoke through the area.

Facility description:

RJ Torching, Inc. conducts torch cutting operations in Flint, as well as in Battle Creek. They also bring mobile torch cutting equipment to customers' sites. RJ Torching is also known as RJ Industrial Recycling (RJIR). They have a nearby office on Energy Drive.

Environmental contacts:

Jason Roughton, Owner; 248-770-1173

Doug Adams, Yard Manager; 810-785-9759; [dadams@rjind.com](mailto:dadams@rjind.com)

Emission units:

Emission unit*	Emission unit description	Michigan Air Pollution Control Rules	Operating status
3 torch cutting processes	3 torch cutting processes, operating outdoors	Rule 201, requiring a permit to install	Noncompliance, for not meeting the Rule 285(2)(j) exemption criteria.
Yard area	General facility yard area	Rule 310, regulating open burning	Compliance, as no evidence of open burning could be seen.

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

Regulatory overview:

RJIR is classified as a minor source in the Michigan Air Compliance Enforcement System (MACES) database used by AQD, although a particular pollutant is not specified. 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, lead, particulate matter smaller than 10 microns, and particulate matter smaller than 2.5 microns. It is considered a minor or area source for Hazardous Air Pollutants (HAPs), because it is not known 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.

On 12/20/2016, the Rule 285(j) permit exemption rule for torch cutting was revised as Rule 285(2)(j). The revised rule exempts the following:

- (j) Portable torch cutting equipment that does not cause a nuisance or adversely impact surrounding areas and is used for either of the following:
  - (i) Activities performed on a non-production basis, such as maintenance, repair, and dismantling.
  - (ii) Scrap metal recycling and/or demolition activities that have emissions that are

released only into the general in-plant environment and/or that have externally vented emissions equipped with an appropriately designed and operated enclosure and fabric filter.

**Relevant Michigan Air Pollution Control rules:**

**Rule 301(1)(a), limiting opacity, reads as follows:**

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.

**In 2007, AQD first cited the company for a violation of Rule 301, for excess opacity.**

**Rule 310 regulates open burning. Waste materials may not be open burned at a business in Michigan. AQD has occasionally cited violations of Rule 310 at this facility.**

**Rule 370 regulates collected air contaminants. Rule 370(1) states:**

Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air.

**AQD has never witnessed the cleaning of the SPARCS filters, to the best of my knowledge. On 3/4/2015, during an inspection, I was told that the cleaning was done by blowing the filters out with compressed air, and picking up the metal particulates with a magnet afterwards. AQD was also told that washing the filters with water had been tried. Cleaning the filters with air, outdoors, would not likely comply with Rule 370(1). Washing of the filters may or may not meet requirements of the DEQ Water Resources Division.**

**Rule 901, prohibits emissions which cause nuisances, and reads as follows:**

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.

**Rule 901(b) was cited by AQD in 2015, for smoke and odors.**

**History:**

**Since September of 2005, AQD has received and investigated multiple complaints of heavy opacity from torch cutting at the Flint yard. The company cuts metal dies and other large scrap which some facilities will not accept, due to potential for heavy smoke, and that they will process alloys of metal other facilities choose not to process, because those metals generate excess smoke. AQD has responded to several complaints, over the years, and written several Violation Notices (VNs) for the facility.**

Documented RJ Torching complaints received, by year:

Year	# of complaints
2005	3
2006	0
2007	7
2008	8
2009	3
2010	4
2011	5
2012	2
2013	1
2014	0
2015	4
2016	2
2017	0
2018	3

The most recent complaint was received on 12/20/2018, the day before this inspection. Please see complaint number C-19-01025.

**Attempts to reduce particulate emissions:**

RJ Torching developed the portable SPARCS (Smoke Particulate Air Reduction Cyclone System) filtration system over the years, in an attempt to reduce particulate emissions from torch cutting.

AQD staff have witnessed demonstrations of the SPARCS units in the past, but it is my understanding that AQD staff have never seen the unit(s) in use, when AQD visited the site, unannounced.

RJ Torching advised AQD staff in November 2008 that they used a metal shear unit(s) to cut scrap metal of smaller dimensions, but some scrap materials, such as dies, are too large to be cut in this manner. The company has continued to use shearing for smaller metal scrap. Torch cutting appears to remain a regular part of operations at the Flint yard, however.

**Recent enforcement actions:**

In 2015, the U.S. Environmental Protection Agency (EPA) entered into an Administrative Consent Order (ACO) EPA 5-15-113(a)-MI-02 with the company. This was to address pre-2015 violations cited by AQD, which AQD had not been able to resolve with the company. AQD had therefore referred these violations to EPA, and the ACO was developed. It included a requirement to follow Best Management Practices (BMPs), contained in Appendix A of the ACO. It is my understanding that RJ Torching developed these BMPs.

In 2015, for the Flint yard, AQD cited violations of the Michigan Air Pollution Control Rules, and of ACO EPA 5-15-113(a)-MI-02. The violations of Michigan Air Pollution Control Rules were for Rules 301 (opacity), 310 (open burning), and 901 (smoke and odor nuisances). The consent order violations were for determinations that they were not meeting ACO requirements. Since there was ongoing enforcement, EPA remained the lead agency. Discussion between EPA, AQD, and the company in 2017 did not resolve these outstanding violations.

**Fee status:**

This facility is not considered Category I fee-subject, as it is not a major source for criteria air pollutants. It is not considered Category II fee-subject, as it is neither a major source for HAPs, nor is it subject to a federal New Source Performance Standard. It is also not considered Category III fee-subject, as it is not subject to a Maximum Achievable Control technology standard. This facility is not required to report annual emissions through the Michigan Air Emission Reporting System (MAERS).

**Location:**

The facility is located north of the intersection of Carpenter Road with North Dort Highway. To the north and south, on either side of Dort Highway, are mostly industrial but also some commercial businesses. RJ Torching is immediately east of the CSX Transportation railyard, and 500 feet east of a residential neighborhood. The next closest residential area is about 1,500 feet to the southwest.

**Safety apparel required for visiting site:**

I am not aware of the site's specific safety requirements, but from a practical standpoint, AQD staff should wear steel-toed boots, hard hats, safety glasses with side shields, high visibility safety vests, and hearing protection. Hearing protection may not be needed if one does not closely approach the torch cutting.

**Odor evaluation:**

Today, 12/21/2018, I drove east on Carpenter Road, and then turned north, onto Dort Highway. I was able to see white or light gray emissions of smoke drifting across Dort, in the vicinity of RJ Torching. Instantaneously, I estimated the smoke at being around 30% opacity.

I drove past RJ Torching, detecting a distinct and definite burnt synthetic smell, about 10:04 AM. Through the entrance opening in the tall fence around the RJ property, I could see light gray smoke rising from what appeared to be scrap metal. I could not tell if torch cutting was being done, or if open burning was taking place, from this very brief glimpse. The weather conditions were 40 degrees F, overcast and slightly misty, with winds out of the north northwest at 10-15 miles per hour.

I continued driving north on Dort Highway, then turned east onto Coldwater Road, and south on North Bray Road. From there, I drove west on Carpenter Road, detecting a faint burnt smell near the intersection of Energy Drive and Carpenter Road, at 10:12 AM. Winds were out of the northwest or north northwest at this time. I then returned to Dort Highway. Please see attached odor evaluation form, as well as marked up satellite image showing route taken, and locations where odors were detected. Locations on the satellite image are keyed to correspond to locations on the odor evaluation form. Also attached is an hourly summary of weather data for Flint on 12/21/2018.

Odor evaluation findings are summarized below:

Time	Location	Odor scale	Characteristic
10:04 AM	N. Dort Hwy.	2	Burnt synthetic odor
19:12 AM	Energy Dr. & Carpenter Rd.	1	Burnt synthetic or rubber

The 0 to 5 odor scale used by AQD is as follows:

Level	Description
0	Non-detect
1	Just barely detectable
2	Distinct and definite
3	Distinct and definite objectionable odor
4	Odor strong enough to cause a person attempt to avoid it completely
5	Odor so strong as to be overpowering and intolerable for any length of time

The odors detected offsite at this time were determined to be insufficient to constitute a violation of Rule 901(b).

**Attempt to witness visible emissions:**

I parked across the street from RJ Torching, in the parking lot of a small business. I provided my identification to the employee working inside, and asked if they would grant me permissions to park on their property and watch the smoke from RJ Torching for a while. Permission was granted to observe

from their property.

I discreetly watched the opacity, and took photos, over the next ten minutes. I saw continual light gray opacity at ground level, visible through the entrance to RJ Torching. It ranged from a sustained low of 5% to an intermittent high of 30%, generally speaking. From a location north of the entrance to the site, intermittent puffs of brown opacity were visible, ranging from a low of 0% to a high of about 40%. The brown opacity rose higher into the sky than the light gray opacity, which stayed very close to the ground.

After roughly 7-8 minutes, the light gray opacity at ground level increased, as seen through the entrance opening in the RJ Torching perimeter fence. Instantaneously, it looked to me like the opacity had risen to approximately 80%. Both the light gray and the brown smoke suddenly ceased, about 10:24-10:25 AM. Method 9 was not performed at this time.

Please see attached photos. Out of a total of ten photos, the ones showing the highest opacity were selected. The opacity appears less opaque in the photos than it did to me in person. My experience with various facilities has generally been that opacities in the lower ranges tend to appear fainter in photographs. The last two photos show the heavier light gray smoke, shortly before the smoke ceased, at 10:24-10:25 AM.

Following the cessation of all opacity, I waited until 10:29 AM, but torch cutting did not resume. I therefore left for a few hours, to do other field work in Genesee and Lapeer Counties, with the intent to return later in the day when torch cutting might again be taking place.

#### Arrival:

I returned to Flint in the afternoon, arriving at the intersection of Carpenter Road with Dort Highway at 1:11 PM. As I neared the site, I saw that torch cutting activities had resumed, based on opacity rising above the facility. Weather conditions were overcast, humid, and 40 degrees F, with winds out of the north northwest at about 5 mph.

Upon arrival at 1:13 PM, I approached the small onsite office. I provided my identification/credentials, per AQD procedure, and explained that I was following up on a complaint. I asked if a site manager was available, and was told that Mr. Doug Adams would meet me, outside.

#### Inspection:

While waiting for Mr. Adams, I noted there appeared to be three torch cutters at work. The torch cutting was being done uncontrolled, to the west of a short wall of concrete barriers. The southernmost two smoke plumes were light gray in color, while the northernmost was brown with a faint, greenish tint.. Instantaneously, I judged the opacity of this plume to vary from 40% to as high as 60%. There was a SPARCS unit, which was not being used, a distance of at least 20 feet from the north torch cutting location. I could not tell which versions of SPARCS the unit was; version 5, 7, or a newer version. Intermittently, I could smell the torch cutting smoke, which had a distinct and definite scent like burnt oil and burnt synthetic material.

At this point, I met City of Flint Police Officer T. Lewis, who had arrived onsite earlier than I had. I inquired if he was here in response to smoke or odor complaints, but he informed me that he was here to advise RJ Torching to be aware of some potential criminal activity in the area. Mr. Doug Adams soon approached us, and Officer Lewis spoke with him. Afterwards, I advised Mr. Adams that I was here to follow up on a complaint. I provided my identification/credentials, but Mr. Adams remembered me from a previous site visit.

I explained that yesterday's complaint alleged burning of metals, plastic, and rubber. Mr. Adams indicated that they do not burn anything here, but they do conduct torch cutting. From the light gray smoke and brown smoke I was seeing at this time, it is entirely possible that torch cutting smoke could be mistaken for smoke from open burning, by an offsite observer. I asked if they were doing torch cutting yesterday, the day the complaint had been made, and was informed that they had been.

The three torch cutters continued to operate, outdoors in the yard area. The onsite SPARCS unit was situated roughly 25 feet or more away from the northernmost torch. This torch cutting activity produced brown smoke, while the two to the south were emitting light gray smoke. Mr. Adams informed me that they do visible emission readings each day. He said that when torch cutting produces what they consider to be heavy smoke, they stop, and relocate that particular piece of scrap metal so it can be cut in front of the SPARCS unit. I asked how often they use the SPARCS unit, and Mr. Adams advised me that it is used every day.

Please see attached 2018 satellite image from Google Maps, with markups by me, showing location of the SPARCS unit and approximation of the locations where three torch cutters were operating today. The location of the SPARCS unit today appeared consistent with the satellite image. Although the SPARCS unit is considered portable, it is my understanding that RJ Torching finds it more practical to bring pieces of scrap to the SPARCS unit, rather than the other way around.

I brought up the current AQD torch cutting exemption from the requirement of Rule 201 to obtain a permit to install. The torch cutting exemption had been Rule 285(j) prior to 12/20/2016, but was revised as Rule 285(2)(j), on 12/20/2016. To meet the exemption criteria, and avoid violating Rule 201, production torch cutting must be done in the general in-plant environment, and/or have externally vented emissions controlled by an enclosure with a baghouse.

Mr. Adams advised me that he and other RJ Torching staff had been at the 12/11/2018 DEQ Environmental Compliance Workshop For the Automotive Salvage and Scrap Metal Industry. AQD's Mike Kovalchick had briefed attendees on air regulations, including the 2016 revision to Michigan's torch cutting exemption.

Mr. Adams said that they have considered a number of approaches to meeting the Rule 285(2)(j) exemption criteria, including having a portable structure on rails, as has been done elsewhere in Michigan. One option they evaluated was said to be an outdoor device similar to SPARCS, but larger, while another outdoor device was said to have a retractable roof that could be put in place. I was told that they have ruled out a portable structure or portable control device.

Mr. Adams said that they intend to build a 40 by 75 foot enclosed structure onsite, and will do torch cutting inside it, to be controlled by a baghouse. They have already moved the building components to property across the street from this site, I was told, and they will purchase a baghouse. It is my understanding that the building will be tall, so that smoke from torch cutting can rise above the heads of the workers, and the building will exhaust to the baghouse. I was advised that they will build the structure a couple months from now, in order to meet the Rule 285(2)(j) exemption.

I left the site at 1:50 PM.

#### Conclusion:

RJ Torching is not currently meeting the Rule 285(2)(j) exemption criteria for torch cutting, because it is being done out of doors. The exemption criteria are that torch cutting emissions must be released into an in-plant environment, and/or controlled. The torch cutting processes therefore are in violation of Rule 201, as they do not have a permit to install.



**Image 1(001) :** R J Torching opacity.



**Image 2(002) :** Brown smoke.



**Image 3(003)** : Brown smoke.



**Image 4(004)** : Dense brown smoke.



**Image 5(005)** : Dense brown smoke.



**Image 6(006)** : Increased light gray smoke.



**Image 7(007)** : Maximum of light gray smoke.

NAME *[Signature]*

DATE 2/14/2019

SUPERVISOR *[Signature]*