

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

N047829880

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|--|-------------------------------|---------------------------|
| FACILITY: Gerdau Special Steel Lansing Bassett Facility | | SRN / ID: N0478 |
| LOCATION: 1801 BASSETT ST, LANSING | | DISTRICT: Lansing |
| CITY: LANSING | | COUNTY: INGHAM |
| CONTACT: Mark Maatman, Production Manager | | ACTIVITY DATE: 06/23/2015 |
| STAFF: Daniel McGeen | COMPLIANCE STATUS: Compliance | SOURCE CLASS: Minor |
| SUBJECT: Unannounced, scheduled inspection of facility which was last inspected in 2010. | | |
| RESOLVED COMPLAINTS: | | |

On 6/23/2015, the Department of Environmental Quality (DEQ), Air Quality Division (AQD) conducted an unannounced, scheduled inspection of the Gerdau Special Steel North America Lansing Bassett Facility.

Environmental contact:

Mark Maatman, Production Manager - Lansing Bassett Facility; 517-482-1374, ext. 2017;
Mark.Maatman@gerdau.com

Facility description:

This facility treats steel for a variety of customers. The treatments can include but are not limited to annealing, phosphating, pickling, polymer coating, quenching and tempering with oil, and shot blasting.

Emission units:

| Emission unit | Permit to Install (PTI) or Rule | Operational status |
|---|---------------------------------|--------------------|
| EUCOAT, steel parts pickling and phosphate line | PTI No. 473-97A | Compliance |
| Oil quench furnaces Nos. 20 and 21 | PTI No. 1270-91 | Compliance |
| 2 shot blasters | Rules 285(l)(vi)(B), 301 | Compliance |
| 7 bell furnaces | Rules 282(a)(i), 301 | Compliance |
| Furnace No. 51 | Rules 282(a)(i), 301 | Compliance |
| Furnace No. 52 | Rules 282(a)(i), 301 | Compliance |
| Non-acidic aqueous tanks | Rule 285(l)(iii) | Compliance |
| 2 endothermic generators | Rule 282(l)(iv) | Compliance |

Regulatory overview:

This facility is considered a true minor 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, 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 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 facility is an area source under the 40 CFR Part 63, Subpart JJJJJ. Under Section 63.11195(e), natural gas-fired boilers at area sources are not subject to this regulation. Please see 7/10/2015 e-mail from AQD's Nathan Hude to Mr. Dale Feldkamp of Gerdau, which is attached for reference.

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).

Location:

The facility is located on the eastern side of an industrial area in Lansing, with residences immediately to the east, northeast, and southeast.

Recent history:

AQD has not received any air pollution complaints regarding this facility, since 1996.

Arrival:

I detected no odors east or south of the facility, as I approached it from downwind. I was not able to see any visible emissions from the plant. Weather conditions were sunny and 79 degrees F, with winds out of the northwest at 10 miles per hour.

I arrived at 1:27 PM. I noticed a barely detectable oily odor in the plant parking lot. I met with Mr. Mark Maatman, Production Manager - Lansing Bassett facility. I presented my identification/credentials, per AQD procedures, and provided Mr. Maatman with a copy of the DEQ brochure *Environmental Inspections: Rights and Responsibilities*, also per AQD procedures. I explained that the reason for this inspection was because the facility had not been visited by AQD staff since 3/16/2010. I was informed that the equipment they use and the products they make are the same as in 2010. I was also informed that Mr. Ernie Farkas, the previous environmental contact, is no longer with Gerdau. I was told that they run 3 shifts, and that some equipment runs 7 days per week.

A sign posted in the lobby indicates that required safety equipment to visit this facility includes:

- safety glasses with side shields;
- hard hat with chin strap;
- hearing protection;
- orange safety vest;
- gloves; safety toed boots with metatarsal guard
- long sleeves; and
- no jewelry, watches, or rings.

Mr. Maatman was able to provide safety equipment on loan from the locker in their office, to make up for what I had not brought with me, today.

Inspection:

EUCOAT; PTI No. 473-97A:

Tanks which comprise EUCOAT:

| Tank number | Contents |
|-------------|-----------------|
| 2A | Cleaner 1 |
| 2B | Cleaner 2 |
| 3 | Hot water rinse |
| 4 | Hot water rinse |
| 5A | Sulfuric acid |
| 5B | Sulfuric acid |
| 6 | Water rinse |
| 7 | Hot water rinse |
| 8A | Phosphate |
| 8AA | Phosphate |
| 8B | Phosphate |
| 9 | Water rinse |

| | |
|-----|-------------|
| 10 | Water rinse |
| 11 | Neutralizer |
| 12A | Lube |
| 12B | Lube |
| 12C | Polymer |
| 12D | Oil |

EUCOAT, the steel parts pickling and phosphating line, was running. The pressure drop for the scrubber was 1.0 inches, water column (w.c.). However, an employee pointed out to Mr. Maatman that the red needle which indicates the lower range of the scrubber was set at 0.0 inches, w.c., and should have been at 0.5 inches, w.c. Mr. Maatman corrected this, immediately. It was informed that an alarm sounds, if the needle drops below the acceptable range. The red needle which indicates the upper end of the range was at 1.5 inches, w.c., and did not receive adjustment.

Following the conclusion of the inspection, I reviewed the conditions of PTI No. 473-97A. Special Condition (S.C.) No. 1.2 states:

The permittee shall not operate EUCOAT process tanks 5A, 5B, 7, 8A, 8AA, nor 8B unless the wet scrubber is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes, but is not limited to, maintaining a pressure drop of between 0.5 and 1.5 inches, water gauge. [R336.1225, R336.1901, R336.1910]

If the scrubber had previously been operated with a pressure drop below 0.5 inches w.c., this would constitute a violation of S.C. No. 1.2.

S.C. No. 1.3 states:

The permittee shall not operate the EUCOAT wet scrubber unless a gauge, which measures the pressure drop across the scrubber and sounds an alarm when the pressure drop is below 0.5 inches or exceeds 1.5 inches water, is installed, maintained and operated in a satisfactory manner. [R336.1225, R336.1901, R336.1910]

It appears that prior to today's correction of the low end of the pressure drop range, an alarm would not have sounded, if the pressure drop went below 0.5 inches w.c., because the range had been set to 0.0 inches, w.c. This indicates that the gauge had not been maintained and operated in a satisfactory manner, constituting a past violation of this permit condition. AQD will follow up by sending a Violation Notice (VN). Standard language in the VN asks for an explanation of why the violation occurred, how long the violation occurred, and what steps will be taken to prevent a recurrence, in the future. This letter will note that the violation was corrected, prior to my leaving the site.

There were no visible emissions from the west building which houses the coating line, except for steam from the heating of process tanks.

Later during the inspection, we reviewed recordkeeping required by the permit. The monthly average hourly throughput rate for EUCOAT is limited to 34,000 lbs of coated parts per hour, by S.C. 1.1 of the permit. For yesterday, 6/22, the lbs/hr processed were 8,500, I was informed, and from 6/1 through today, the average hourly throughput rate was 11,523 lbs/hr. I was also informed that for the month of May, 2015, the monthly average hourly throughput was 12,931 lbs/hr, while for the year to date, average hourly throughput was 12,221 lbs/hr.

Mr. Maatman printed out a titration report for a recent day, attached for reference. This demonstrates compliance with S.C. No. 1.4 of the permit.

Oil quench furnaces Nos. 20 and 21; PTI No. 1270-91:

I was informed that furnace No. 20 is high temperature and is basically a quench furnace, while No. 21 is low temperature, and is basically a tempering furnace. There were no visible emissions detectable from the furnaces. This indicates compliance with Special Condition No. 15 of the PTI.

2 shot blasters; Rules 285(l)(vi)(B), and 301:

The shot blasters were not running, at the time of the inspection. There were no visible emissions from the units, indicating compliance with the 20% opacity limit of Rule 301. The floor around the dust collectors for the shot blasters appeared clean.

7 bell furnaces; Rules 282(a)(l), and 301:

Their central building has their bell department. The bell furnaces are used to heat treat steel parts. When they operate, the running time ranges from 10 to 80 hours, depending on what their customers require. There were no visible emissions detectable from the central building, indicating compliance with Rule 301.

Furnace No. 51; Rules 282(a)(l), and 301:

Furnace No. 51 was not running, at this time. It treats similar products and operates at similar temperatures as furnace No. 52, which is discussed below. There were no visible emissions from the associated exhaust stack, indicating compliance with the 20% opacity limit of Rule 301.

Furnace No. 52; Rules 282(a)(l), and 301:

Furnace No. 52 was running. The usual operating range for this furnace is between 1210 and 1470 degrees F. It treats mostly steel parts for the auto industry. No visible emissions could be seen from the exhaust stack, when we were outside the plant, indicating compliance with the 20% opacity limit of Rule 301.

Non-acidic aqueous tanks; Rule 285(l)(iii):

These tanks are considered exempt, as they are for surface treatment of metals and use a non-acidic, aqueous solution. They are housed in the west building, along with the permitted coating line, EUCOAT.

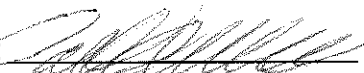
2 endothermic generators; Rule 282(l)(iv):

One of the endothermic generators was running. Only one is run at a time. They provide endothermic gas for furnaces Nos. 52 and 20, as well as for the bell furnaces.

Conclusion:

The facility was found to be in compliance with the conditions of their air use permits, by the end of the inspection. During the inspection, however, the wet scrubber pressure drop gauge for EUCOAT was adjusted to correct the lower end of the pressure drop range from 0.0" w.c. to the required 0.5" w.c. This indicates that a past violation of S.C. No. 1.3 of PTI No. 473-97A had taken place. A Violation Notice will be sent to document the violation, noting that it was corrected, prior to the completion of the inspection. The letter will inquire as to the cause of the past violation, the length of time the violation took place, and what steps will be taken to prevent a reoccurrence in the future.

NAME



DATE

8/18/2015

SUPERVISOR

