DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

B430665226

FACILITY: Gerdau Special Steel North America - Jackson Mill		**SRN / ID:** B4306
LOCATION: 3100 BROOKLYN RD, JACKSON		**DISTRICT:** Jackson
CITY: JACKSON		**COUNTY:** JACKSON
CONTACT: Chris Hessler , Regional Environmental Manager		**ACTIVITY DATE:** 10/18/2022
STAFF: Mike Kovalchick	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: On-site compliance inspection. Melt Shop has permanently closed. ROP to be voided.		
RESOLVED COMPLAINTS:		

Major / ROP Source. Full Compliance Evaluation (FCE) and Inspection (PCE)

Facility Contacts

Chris Hessler (CH), Regional Environmental Manager, 734-818-7113. Christopher.hessler@gerdau.com

Purpose

On October 18, 2022, I conducted a scheduled, announced inspection of the Gerdau Special Steel North America - Jackson Mill (Company or GJ) facility located in Jackson, Michigan (Jackson County) at 3100 Brooklyn Road. (The purpose of the inspection was to determine the facility's compliance status with applicable federal and state air pollution regulations, particularly Michigan Act 451, Part 55, Air Pollution Control Act and administrative rules, and the conditions of GJ's Renewable Operating Permit (ROP) number MI-ROP-B4306-2020, issued September 10, 2020.

Facility Location

Several residential and commercial properties, including a preschool, are located about 1,000 feet south and southeast of the facility, while US-127 and open / agricultural fields are located west and north, respectively, of the facility.

Arrival & Facility Contacts

No smoke or odors were observed upon our arrival and parking at the facility, at approximately 9:15 am. I proceeded to the facility security office to request access for an inspection of the facility. I then met with Chris Hessler (CH) and other Gerdau representatives just before 9:00 am. CH accompanied me on the inspection.

Regulatory Applicability

The facility is a Major / ROP source for CO and had also accepted PM, NOx, SO2, CO, and VOC emission limits in order to remain below major source emission thresholds for these pollutants. The facility is regulated by ROP number MI-ROP-B4306-2015. It is also subject to:

Title 40 of the CFR, Part 63, Subpart ZZZZ, NESHAP for Reciprocating Internal Combustion Engines (RICE) (AKA RICE MACT).

The facility reports its emissions to MAERS and is designated as a Fee Category I source. The fee category is expected to change in the near future with the pending voiding of the ROP permit.

Facility Background

The facility was last inspected on April 15, 2021 and was found to be in compliance.

The Company has made a decision to permanently close most of the facility including the Melt Shop where the vast majority of air emissions were historically generated. The early stages of plant demolition activities have commenced and are likely to dramatically increase in the Spring of 2023.

On August 8, 2022, an Opt-out permit application was submitted to recognize the permanent reduction in process operations and establish potential to emissions below major sources levels. A review of

the application by AQD resulted in a determination that the facility is now considered a true minor source, so the application was returned to the Company.

On August 24, 2022, the Company submitted a request to void the Renewable Operating Permit and issue a Source-Wide PTI for the site. As of 10/19/2022, this request is being reviewed.

The Company still plans to continue operating EU-HTO001 commonly referred to as the Old Salem Furnace (30 MMBTU/hour heat treat furnace) indefinitely.

The Company also plans to continue operating two annealing furnaces as part of the Finishing Operations. Annealing Furnace #1 (EU-AF01) is rated at 60.2 MMBTU/hr heat inputs and Annealing Furnace #2 is rated at 38.4 MMBTU/h heat input.

The only other source of significant potential emissions are four (4) diesel fuel fired emergency generators, and two (2) natural gas-fired emergency generators.

Onsite Inspection

Below is an evaluation of the compliance requirements for each regulated emission unit evaluated this is currently operational.

EU-HTO001 Status: Compliant-Not Operating

Commonly referred to as the Old Salem Furnace (30 MMBTU/hour heat treat furnace), it was not operating during and purportedly had not operated in 2022 due to a lack of business. Some odors were noted inside the very large building housing this furnace. They odors were likely caused by some lubrication oil on steel conveying equipment that was overheated. The lubrication oil is purportedly vegetable based.

EU-AF01 Status: Compliant

Emission unit includes one 60.2mmBtu/hr. annealing furnace (Furnace #1) located in the detached finishing building, which is south of the main building.

<u>Emission Limits - Monitoring/Recordkeeping</u>

Restricts NOx emissions to 4.92 pounds per 24-hour period and 22 tons per 12-month rolling time period. Compliance is based upon an annual and 24-hour time period natural gas usage restriction. The facility is required to determine hourly gas usage based on a 24-hour average and use established emission factors to calculate and maintain records of NOx, along with natural gas uses on a monthly basis.

Review of requested records for 2022 showed compliance with the NOx emission limits, as well as the natural gas usage limit. Daily NOx emissions are below the 4.92 pounds per hour.

EU-AF02 Status: Compliant

Emission unit includes one 38.4mmBtu/hr. annealing furnace (Furnace #2) located in the detached finishing building, which is south of the main building. A check of the control panel during the inspection showed 12 separate zones operating in the furnace between 1000 and 1121 degrees F.

<u>Emission Limits - Monitoring/Recordkeeping</u>

Restricts NOx emissions to 3.12 pounds per 24-hour period and 13.9 tons per 12-month rolling time period. Compliance is based upon an annual and 24-hour time period natural gas usage restriction. The facility is required to determine hourly gas usage based on a 24-hour average and use established emission factors to calculate and maintain records of NOx along with natural gas uses on a monthly basis.

Review of requested records for the past 12-months showed compliance with the NOx emission limits, as well as the natural gas usage limit.

<u>Other Requirements</u>

Prohibits direct venting of the furnace to the outside atmosphere.

FG-RICE Status: Compliant-Engines not operating.

Four (4) compression ignition emergency generators and two spark ignition emergency generators subject to the requirements applicable to area source RICE MACT. None of the engines have been retired during the recent downsizing of the facility. A spot check of one of the diesel emergency generators located outside the building housing the annealing furnaces showed it to be in decent condition with the total lifetime hours of operation for the generator showing to be 727 hours. A review of records show that each engine was used less than 60 hours in 2021 with a similar pattern of usage in 2022. Maintenance records were also reviewed and found to be satisfactory.

Process/Operational Restrictions

Requires non-resettable hour meters on each engine and maintenance records.

MAERS 2021 Review:

Reported calculated emissions include NOx 10 tons, VOC 1 ton, PM10 2 tons. Similar or even lower emissions are expected to be reported for 2022 as EU-AF01 and EU-AF02 usage dropped in 2022. Most of the emissions are calculated using emission factors for burning of natural gas.

Post-Inspection Meeting

I held a brief post-inspection meeting with CH.

I indicated that I did not have any concerns but would be following up with a request for records for the furnaces.(The last of the requested records were received 11/3/2022.) I thanked CH for his cooperation and assistance and departed the facility at approximately 10:30 am.

Compliance Summary

Based upon the visual observations and the review of the records, the Company appears to be in substantial compliance with the requirements of their ROP. It appears that the ROP for the facility will be voided shortly, and the facility will be operating under a Source Wide PTI going forward.

NAME Mike Kovalchick DATE 10/18/2022 SUPERVISOR