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

A780967585

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|---|---|---|
| **FACILITY:** U S STEEL GREAT LAKES WORKS | | **SRN / ID:** A7809 |
| **LOCATION:** 1 QUALITY DR, ECORSE | | **DISTRICT:** Detroit |
| **CITY:** ECORSE | | **COUNTY:** WAYNE |
| **CONTACT:** Nathan Ganhs , Environmental Engineer | | **ACTIVITY DATE:** 05/31/2023 |
| **STAFF:** Katherine Koster | **COMPLIANCE STATUS:** Compliance | **SOURCE CLASS:** MEGASITE |
| **SUBJECT:** FY23 Inspection | | |
| **RESOLVED COMPLAINTS:** | | |

Reason for Inspection: FY2023 Targeted Inspection
Targeted Inspection: No. 5 Pickle Line, Vacuum Degas boiler
Level of Inspection: PCE
Inspected by: Katie Koster, AQD
Personnel Present: Nathan Ganhs, Environmental Engineer
Facility phone number: 313-749-3857, 313-378-1612 (cell)
**********

## FACILITY BACKGROUND

United States Steel, Great Lakes Works (USS – GLW) is an integrated steel mill in operation since August 1930. It is located just south of the City of Detroit. The site consists of approximately 1100 acres that span along the Detroit River through the cities of Ecorse and River Rouge. The facility includes the Main Plant Area, the 80-inch Hot Strip Mill, and the iron making and coke making operations on Zug Island.

This inspection report focuses on the No. 5 Pickle Line.

## COMPLAINT/COMPLIANCE HISTORY

No complaints have been received related to the equipment inspected in this report.

## OUTSTANDING CONSENT ORDERS

Consent Order 2020-11 is in effect due to the failure of several stack tests at the pickle line.

## OUTSTANDING VN's

Company is operating under a consent order for the pickle line.

## PROCESS DESCRIPTION

No. 5 Pickle Line and No. 4 Tandem Mill are housed in the J Building, south of the Environmental Office at the Main Plant. From the Hot Strip Mill, some coils are sent to No 5. Pickle Line, Tandem Mill, and on to either the Continuous Galvanizing Line (CGL) or annealed and were formerly sent to the Electrogalvanizing Line (EGL). However, the EGL has been shut down. The pickling process uses hydrochloric acid to remove metal oxides formed when steel is hot rolled and cooled. It is necessary to remove these oxides to provide a smooth clean surface for use as hot rolled steel and/or to perform subsequent cold forming operations.

Coils are unrolled, welded together, and pass through the tension leveler to break off scale. The tension leveler is controlled by a baghouse. Next, the strip enters the looper which allows the line to run continuously. The pickling process consists of 4 heated pickle tanks installed in series; the 4$^{th}$ tank is a rinse tank. The fresh acid solution is introduced in the 3$^{rd}$ pickle tank. The acid solution then cascades from the 3$^{rd}$ tank to the 1$^{st}$ tank in a direction counter to the direction of the metal coil strip. By this countercurrent arrangement, the cleanest coil strip near the process exit is treated by the freshest acid, ensuring that the steel strip is as free of oxide scale as possible.

All pickle line tubs, including the rinse tank, are completely covered. Ductwork along the edge of each tank, covered by rubber seals, carries the fumes to the packed bed scrubber. According to USS, maintenance walks the line every day and the tubs are checked daily, but not necessarily recorded anywhere, it is just a routine item that is always monitored. After the rinse tank, the strip enters the dryer, exit looper, side trimmers, and inspection area before proceeding to the tandem cold mill.

Fresh and spent HCl is stored in tanks outside, on the west side of the building. The tanks are controlled by a scrubber that was installed several years ago. Pressure drop and flow rate are monitored for this scrubber..Prior to the tank scrubber, the tanks were controlled by the main scrubber.

**INSPECTION NARRATIVE**

AQD inspector, Katie Koster, arrived at USS Great Lakes Works on May 31, 2023. I met with Nate Gahns, Environmental Manager. We proceeded to the pickle line. The pickle line main scrubber was replaced in November 2021. The line was shut down from November 4 through the 17, 2021 for maintenance and to replace the scrubber. It is a different design; there is one spray nozzle and there is only a single flow rate. The stack was also replaced. There is also a baghouse to control the welder at the beginning of the line to weld the coils together. Quarterly PM is scheduled to clean the dust out from the chambers.

I recorded the following values for the main scrubber in the operators pulpit:
Scrubber pressure drop – 2.2 in w.c.
Demister pressure drop – 1.3 in w.c.
Overall – 3.5 in w.c.
Fan amps – 2.8 amps
Scrubber makeup water – NA (this function is not in use with this new scrubber)
Scrubber recirculation water flow – 87.3 gpm (much lower than prior scrubber which was 602 gpm)
I also observed the hand written logs of scrubber parameters recorded once per shift. The flow meter was calibrated on June 15, 2022.

Acid concentrations were Tank 3 at 10.52% (prior 10.23%), Tank 2 at 7.32% (prior was 10.48%), Tank 1 at 4.32% (prior was 13.64%). Tank 4 is a water tank.

At the outside tank farm scrubber, I recorded the following values:
Recirculation water flow – 63.5 gpm
Ph – 7.06
Make up (fresh) water – 0
Pressure drop across packing – less than 1 mm Hg
Pressure drop across mist eliminator – less than 1 mm Hg
No trucks were loading at the time of inspection.

We returned to Mr. Ganhs office and reviewed weekly Zug Island visual checks for fugitive dust, weekly main plant sweeper truck records, and non-certified VE degas boiler records.

**RULES/PERMIT CONDITIONS EVALUATED**

Table below was cut and pasted from the ROP 199600132d.

| **TABLE E-01.08 PICKLE LINE OPERATIONS EMISSION UNIT/PROCESS GROUP REQUIREMENTS** | | | | | |
|---|---|---|---|---|---|
| **EMISSION GROUP** | **EG5-PICKLE-LINE -** No. 5 Pickle Line and Operations, including: pickle line, welder, acid fume wet scrubber and dust collector. | | | | |
| **Flexible Grouping ID** | NA | | | | |
| **I. DESIGN PARAMETERS** | | | | | |
| **A. Pollution Control Equipment** | Scrubber and Baghouse | | | | |
| **B. Stack/Vent Parameters** | Exhaust gases shall be discharged unobstructed vertically upwards to the ambient air. **IN COMPLIANCE. Gases are discharged unobstructed vertically.** | | | | |
| **Stack/Vent ID** | **a. Minimum Height(feet)** | **b. Maximum Exhaust Dimension (inches)** | **c. Temp.** | **d. Air Flow Rate** | **Applicable Requirement** |
| SVPIC-SCRUBBER **IN COMPLIANCE. The inside diameter is slightly larger near the test ports on the new stack compared to the old stack, but when it transitions from the** | 69 | 42 | NA | NA | **(R336.1201(3), R336.1225)** |

| TABLE E-01.08 PICKLE LINE OPERATIONS<br>EMISSION UNIT/PROCESS GROUP REQUIREMENTS | | | | | |
|---|---|---|---|---|---|
| **rectangular duct to the round stack at the exit point, the 36 inch diameter is accurate. Based on MAERS data and confirmed by the facility, stack dimensions are compliant with the requirements.** | | | | | |

| **C. Other Design Parameters** |
|---|
| The permittee shall install, operate and maintain system of measurement and recording of the scrubber makeup water flow rate and, if required, recirculation water flow rate.<br>**IN COMPLIANCE. Water flow is measured continuously and recorded once per shift. These records are submitted to AQD quarterly and were observed during the AQD inspection. See facility file.** |

| **II. MATERIAL USAGE/EMISSION LIMITS** | |
|---|---|
| **A. Material** | **Maximum Usage Rate** |
| NA | NA |
| **B. Pollutant** | **Maximum Emission Limit** |
| Hydrogen Chloride | 18 parts per million by volume (ppmv); OR HCl at mass emission rate that corresponds to a collection efficiency of less than 97 percent. 3. 1.64 pounds per hour.<br>**IN COMPLIANCE. Company passed the most recent test in December 2022. Stack test results for the No. 5 Pickle Line were received on January 27, 2023. Based on the reported results, the HCl emissions were less than 0.08 lb/hr and 1.59 ppmv, dry. Collection efficiency was not required and was not reported. New minimum flow rate is 74 gpm.** |

| **III. COMPLIANCE EVALUATION**<br>**Records of all of the following shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))** | |
|---|---|
| **A. MONITORING/RECORDKEEPING (R 336.1213(3))<br>In Addition To General Requirements in Part A** | |
| **1. Continuous Emission Monitoring (CEM) System and Recordkeeping** | NA |
| **2. Process Monitoring System and Recordkeeping** | The water flow rate to the scrubbers must be monitored continuously and recorded at least once per shift while scrubber is operating. Operation of the scrubber shall be with a minimum of scrubber makeup water flow rate and recirculation water flow rate as established during the most recent performance test. The normal pressure drop range of 3 to 10 inches of water column is considered normal range. The permittee shall initiate appropriate maintenance activity per 63.1160(b)(2)on the scrubber if the pressure drop exceeds the normal range which is not a deviation. **IN COMPLIANCE. Flow rate and pressure drop are continuously monitored and are recorded once per shift. With the new scrubber installed in November 2021, there is no recirculation rate. See attached records for an example. Records indicate compliance as well.** |
| **3. Other Monitoring and/or Recordkeeping** | The permittee shall record and keep the following information and make it available to AQD upon request: Operating parameters for the scrubbers established from the initial test conducted. **IN COMPLIANCE. Parameters are listed on the daily monitoring sheet which is reference in the O&M plan (See attached).** Occurrence and duration of each startup, shutdown, or malfunction of the pickling operation. Occurrence and duration of each startup, shutdown, or malfunction of the air pollution control equipment. **IN** |

| TABLE E-01.08 PICKLE LINE OPERATIONS<br>EMISSION UNIT/PROCESS GROUP REQUIREMENTS | |
|---|---|
| | **COMPLIANCE. Required SSM reports are submitted semi annually with the required information.**<br>4. All maintenance performed on the air pollution control equipment. **IN COMPLIANCE. Inspection and maintenance records are submitted to AQD quarterly per CO 2020-11.**<br>5. Actions taken during periods of startup, shutdown, and malfunction and dates of such actions (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) when these actions are different from the procedures specified in the Startup, Shutdown, and Malfunction Plan (SSMP). **IN COMPLIANCE. If applicable, information is included in the semi-annual MACT reports. See orange folder in facility file for all reports.**<br>6. All information necessary to demonstrate conformance with the SSMP when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) are consistent with the procedures specified in the plan. Can be recorded on a checklist or similar form. **DID NOT EVALUATE AT THIS TIME. AQD did not request this information from the facility at this time.**<br>7. All required measurements needed to demonstrate compliance with the standard and to support data that the source is required to report, including, but not limited to, performance test measurements and measurements as may be necessary to determine the conditions of the initial test or subsequent tests. **IN COMPLIANCE. Facility maintains copies of stack test results.**<br>8. All results of initial or subsequent performance tests. **IN COMPLIANCE. Historically, facility has provided copies of stack test reports when requested. AQD has these reports on file as well.**<br>9. All documentation supporting initial notifications and notifications of compliance status required by 63.9. **DID NOT EVALUATE AT THIS TIME. AQD did not request this information from the facility at this time. This information should already be in AQD files.**<br>10. The permittee shall keep and maintain the following record for 5 years from date of each record of: Scrubber makeup water flow rate and recirculating water flow rate. Calibration and manufacturer certification that monitoring devices are accurate to within 5%. Each maintenance inspection and repair, replacement, or other corrective actions **IN COMPLIANCE. Maintenance records are maintained and have been submitted quarterly since 2016 per CO 22-2016 and more recently CO 2020-11. Also, calibration dates are included in the semi annual NESHAP reports.**<br>11. Records of any applicability determination, including supporting analyses. **NOT APPLICABLE. AQD staff is not aware of any applicability determinations related to MACT CCC at this time.**<br>12. The permittee shall keep records of emission information; operating parameters; maintenance information; and inspections to comply with the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR 63 Subparts A and CCC. All source emissions and operating and maintenance information shall be kept on file for a period of at least five years and made available to the Department upon request. **IN COMPLIANCE. Records containing this information are maintained and have been submitted on a quarterly basis since 2016 due to AQD CO 22-2016 and CO 2020-11. A portion of these records is attached.** |
| **B. TESTING/RECORDKEEPING (R 336.1213(3))In Addition to General Requirements in Part A** | |
| | |

| TABLE E-01.08 PICKLE LINE OPERATIONS<br>EMISSION UNIT/PROCESS GROUP REQUIREMENTS | |
|---|---|
| **1. Parameter to be Tested/ Recorded** | Hydrogen chloride emissions. |
| **2. Method/Analysis** | EPA reference Method 26A |
| **3. Frequency and Schedule of Testing/Recordkeeping** | 1. The permittee shall conduct a hydrochloric acid emission test on the pickle line scrubber stack twice during the term of this permit in compliance with the required testing interval of every 2 ½ years or more frequently upon the request of AQD. **IN COMPLIANCE. Compliance determination is related to the fulfillment of the required frequency only. Testing is more frequent that 2.5 years due to existing CO 2020-11 which requires testing every 6 months. Recent testing dates were: March 2021, August 2021, January 2022, June 2022, and December 2022.**<br>No less than 60 days prior to the hydrochloric acid emission test, a complete stack test protocol must be submitted to AQD for approval and the time schedule of the testing to allow the AQD to have an observer present during the test. The final plan must be approved by the AQD prior to testing. **IN COMPLIANCE. Minimums have been met.** |
| **IV. REPORTING** | |
| **Reports and Schedules** | 1. Semiannual reporting of deviations pursuant to Condition 23 of Part A. Due March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. Annual certification of compliance pursuant to Conditions 28 and 29 of Part A. Due annually by March 15 for the previous calendar year. If actions taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the startup, shutdown, and malfunction plan, the permittee shall state such information in a semiannual report. The report, to be certified by a responsible official shall be submitted to AQD semiannually and delivered or postmarked by the 30th day following the end of each calendar half, June 30.<br>5. Any time an action taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with all requirements of 63.10(d)(5)(ii). See Appendix 8 for summary of 63.10(d)(5)(ii) reporting requirement. **IN COMPLIANCE. This relates to all conditions above. Reports are received on time and include the relevant information. Semiannual reports state that actions consistent with the SSM plan for all SSM events were taken. See facility orange files.** |
| **V. OPERATIONAL PARAMETERS** | |
| 1. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR 63 Subparts A and CCC, as they apply to EUPICKLE5. **IN COMPLIANCE. Provisions are included in the permit and have been evaluated throughout this table.**<br>2. The permittee shall not operate EUPICKLE5 unless the acid fume wet scrubber is installed, maintained, and operated in a satisfactory manner. **IN COMPLIANCE. Scrubber appeared to be operated in a satisfactory manner and within established ranges during the stack test and random spot check of records (see attached). Also, scrubber appears to be adequately maintained based on records provided. Note, this is a new scrubber.**<br>The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to continuously monitor the makeup and recirculation water and recirculation water flowrate in the EUPICKLE5 acid fume wet scrubber consistent with the requirements of 40 CFR 63 Subpart CCC. Monitored data shall be recorded once per operating shift. **IN COMPLIANCE. Monitoring is in place and recorded once per shift. Calibrations are noted in the semi annual NESHAP reports.** | |

**TABLE E-01.08 PICKLE LINE OPERATIONS**
**EMISSION UNIT/PROCESS GROUP REQUIREMENTS**

4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to continuously monitor the pressure drop across the EUPICKLE5 acid fume wet scrubber consistent with the requirements of 40 CFR 63 Subpart CCC. Monitored data shall be recorded once per operating shift. **IN COMPLIANCE. Monitoring is in place and recorded once per shift (see attached). Calibration records are submitted with the MACT CCC semi annual reports.**

**VI. OTHER REQUIREMENTS**

1. The permittee shall provide and operate the hydrochloric acid storage vessels, except during loading and unloading of acid, a closed-vent system for each vessel. Loading and unloading shall be conducted either through enclosed lines or each point where the acid is exposed to the atmosphere shall be equipped with a local fume capture system, ventilated through an air pollution control device. **IN COMPLIANCE. Based on visual observation, enclosed lines for loading and unloading are present.**

The permittee shall comply with the operation and maintenance requirements prescribed under 63.6(e) of subpart A.

The permittee shall prepare and implement an approved operation and maintenance plan (OMP) for the pickle line scrubber and pickle line welder cartridge filter dust collector. This plan is incorporated by reference into this permit as No. 5 Pickle Line Operation and Maintenance Plans. These plans must be consistent with good maintenance practices and for the scrubber emission control device, must at a minimum: **IN COMPLIANCE. OMP for scrubber and the dust collector is in facility file from previous inspection. Maintenance is performed quarterly on scrubber and dust collector; example records are attached.**

(i) Require monitoring and recording the pressure drop across the scrubber once per shift while the scrubber is operating in order to identify changes that may indicate a need for maintenance. **IN COMPLIANCE. Pressure drop recorded on daily operating sheets. Sample attached.**

(ii) Require the manufacturer's recommended maintenance at the recommended intervals on fresh solvent pumps, recirculating pumps, discharge pumps, and other liquid pumps, in addition to exhaust system and scrubber fans and motors associated with those pumps and fans. **IN COMPLIANCE. These components are inspected routinely. Records attached.**

(iii) Require cleaning of the scrubber internals and mist eliminators at intervals sufficient to prevent buildup of solids or other fouling. **IN COMPLIANCE. This is listed as an annual activity in the O&M plan.**

Require an inspection of each scrubber at intervals of no less than 3 months with:
-Cleaning or replacement of any plugged spray nozzles or other liquid delivery devices
-Repair or replacement of missing, misaligned, or damaged baffles, trays, or other internal components.
-Repair or replacement of droplet eliminator elements as needed.
-Repair or replacement of heat exchanger elements used to control the temperature of fluids entering or leaving the scrubber.
-Adjustment of damper settings for consistency with the required air flow.
-If the scrubber is not equipped with a viewport or access hatch allowing visual inspection, alternate means of inspection.

**IN COMPLIANCE. Records have been provided indicating the 3 month frequency has been met. Example is attached. Demister pad, spray headers, spray pumps, and fans are included as parts of the inspections.**

The permittee shall initiate procedures for corrective action within 1 working day of detection of an operating problem and complete all corrective actions as soon as practicable. Procedures to be initiated are the applicable actions that are specified in the maintenance plan. Failure to initiate or provide appropriate repair, replacement, or other corrective action is a violation of the maintenance requirement of this subpart. **IN COMPLIANCE. Corrective actions appear to be documented on the inspection forms and performed in a timely manner.**

The permittee shall maintain a record of each inspection, including each item identified in paragraph (b)(2)(iv) of this section, that is signed by the responsible maintenance official and that shows the date of each inspection, the problem identified, a description of the repair, replacement, or other corrective action taken, and the date of the repair, replacement, or other corrective action taken. **IN COMPLIANCE. Based on records submitted, scrubber is inspected at required frequency Corrective actions taken are also documented on the inspection forms.**

4. Each water flow monitoring device shall be certified by the manufacturer to be accurate to within 5% and shall be calibrated in accordance with the manufacturer's instructions at least once per year. **IN COMPLIANCE. Calibration dates are in the semi annual NESHAP reports. See attached.**

| TABLE E-01.08 PICKLE LINE OPERATIONS<br>EMISSION UNIT/PROCESS GROUP REQUIREMENTS |
|---|
| 5. The permittee may develop and implement alternative monitoring requirements subject to the approval by the AQD District Supervisor. **N/A. No alternative monitoring has been requested.**<br>6. The permittee shall inspect each pickle line operation associated hydrochloric acid storage vessel semiannually to determine that the closed-vent system and either the air pollution control device or the enclosed loading and unloading line, whichever is applicable, are installed and operating when required. **IN COMPLIANCE. Inspection documented on attached records.**<br>7. The permittee shall operate and maintain each emission source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the level required by the standard at all time, including during period of startup, shutdown, or malfunction. Malfunction must be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan. **IN COMPLIANCE. Pickle line and associated air pollution control devices appear to be operated in a manner consistent with good air pollution control practices based on the inspection and records submitted and semi annual SSM reports.** |

**EGVDG-DGAS-BLR -** Vacuum De-gassing Operation, Package Water Tube Steam Boiler – Main Plant.

Boiler is not currently operating; boiler only operates in cold months. Will be restarted in the winter.
III. COMPLIANCE EVALUATION
A. MONITORING/RECORDKEEPING
2. Process Monitoring System and Recordkeeping
The permittee shall record and keep the following information and make it available to AQD upon request:
1. Total monthly natural gas consumption.
2. Total monthly operating hours.
3. Emission rate calculation monthly of pollutants mentioned in II.B. 1-3 of this permit using PTI emission factor.
**IN COMPLIANCE. See attached.**
3. Other Monitoring and/or Recordkeeping
The permittee shall perform a non-certified visible emission observation of the boiler stack at least once a week during boiler operation. The permittee shall initiate appropriate corrective action upon observation of visible emissions and shall keep a written record of each required observation and corrective action taken.
**IN COMPLIANCE. Records were presented and reviewed. No visible emissions have been observed.**
V. OPERATIONAL PARAMETERS
1. There shall be no visible emissions from the operation of the boiler.
**IN COMPLIANCE. No visible emissions have been observed.**
2. The boiler shall be operated using only natural gas as a fuel.
**IN COMPLIANCE. Natural gas is the only fuel for the boiler.**

**Other EU's**

| | | Operational status |
|---|---|---|
| EGBHZ3-1-BOILER | No.1 boiler at No. 3 Boiler House Zug Island. | Temp idle |
| EGBHZ3-2-BOILER | No. 2 boiler at No. 3 Boiler House Zug Island. | Temp idle |
| EGBHZI3-1-BOILER, EGBHZI3-2-BOILER | Boilers 1-2 at Boiler House No. 3 at Zug Island | Temp idle |
| EGBHZI1-1-BOILER, EGBHZI1-2-BOILER, EGBHZI1-3-BOILER, EGBHZI1-4-BOILER, EGBHZI1-5-BOILER; EGBHZI2-1-BOILER, EGBHZI2-2-BOILER, EGBHZI2-3-BOILER, EGBHZI2-4-BOILER, EGBHZI2-5-BOILER | Boilers 1-5 at Boiler House No. 1, and Boilers 1 -5 at Boiler House No. 2 at Zug Island | Boiler House No.1 is temp idle<br>Boiler House No.2 is being operated by EES COKE |

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| EGBHMP-1-8, EGBHMP-1-9 | Boiler Nos. 8 and 9 at the No.1 Boiler House at the Main Plant | Operating but currently under repair |
| EGBURNOUT-OVEN-1, EGBURNOUT-OVEN-2 | Burnout Ovens No.1 & 2 | Unknown |
| EGARGON-STIR | No. 1 Argon Stir Station | Permanent idle |
| EGLMF-OPERATIONS | Ladle Metallurgy Operations comprising of electric arc reheating process, No.2 argon stir station, alloy addition station, LMF and No.2 argon stir station baghouse | Permanent idle |
| EGVDG-OPERATIONS | Vacuum De-gassing Operations comprising of baghouse, cool-tower, gas-flare, oxygen-ops, pickup points A, B, & C, and degas-ops. | Permanent idle |
| EGVDG-DGAS-BLR | Vacuum De-gassing Operation, Package Water Tube Steam Boiler – Main Plant. | Not currently operating – operates only in cold months |
| EGKISH-WETTING | Levy Company: Kish wetting station | Permanent Idle |
| EG5-PICKLE-LINE | No. 5 Pickle line and Operations, including: pickle line, welder, scrubber and dust collector. | Operating |
| EGEGL-OPERATIONS | Electrogalvanizing line operations, consisting of: 1) pre-treatment scrubber 2) EGL line 3) post-treatment scrubber | Permanent idle |
| EGREACTOR1 - 10 | Electrogalvanizing line ion reactor and fume scrubber operations, consisting of: 1) 10 Ion Reactors 2) 1 Fume Scrubber System | Permanent idle |
| EGEGL-STO-TANKS | Electrogalvanizing line storage tanks, including: 1) 3 EGL Solution storage and recirculation tanks 2) Exhaust system 3) Mist eliminator | Permanent idle |
| EGCON-GALV-LINE | Continuous galvanizing operations consisting of the following: 1. Continuous galvanizing line, 2. Continuous galvanizing line annealing furnace, 3. Continuous galvanizing line selective catalytic reduction unit with exhaust gas NOx and oxygen analyzers, 4. Continuous galvanizing line oiler, and 5. Continuous galvanizing line pre-cleaner mist scrubber | Operating |
| EGBLAST-FCE-A | "A" Blast Furnace consisting of the following groups of devices:<br>1) Blast furnace proper 2) Group of 3 stoves 3) Cast house emission control system with baghouse 4) Dust collector 5) Slag pit 6) BFG flare 7) Clean gas bleeder 8) Dirty gas bleeder | Temporary idle |
| EGBLAST-FCE-B | "B" Blast Furnace consisting of the following groups of devices:<br>1) Blast furnace proper 2) Group of 4 stoves 3) Cast house emission control system with baghouse 4) Dust catcher 5) Slag pit 6) Clean gas bleeder 8) Dirty gas bleeder | Temporary idle |
| EGBLAST-FCE-D | "D" Blast Furnace consisting of the following groups of devices:<br>1) Blast furnace proper 2) Group of 3 stoves 3) Cast house emission control system with baghouse 4) Dust catcher 5) Slag pit 6) BFG flare 7) Clean gas bleeder 8) Dirty gas bleeder | Temporary idle |
| EGBF-COOLING-TWR | Blast furnace cooling tower | Temporary idle |
| EG2BOP-HMT | | Permanent idle |

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| | No. 2 Basic Oxygen Process - Hot Metal Transfer and Desulfurization Operations, including:<br>Hot metal transfer operations, Two desulfurization/slag skimming operations, #2 BOP Shop - #2 Baghouse serving the above operations (The baghouse is connected to the fume collection system and includes: two desulfurization / slag skimming operations, one hot metal transfer hood), and Baghouse flow monitoring device | |
| EG2BOF-CHARGING | Basic Oxygen Furnace – Charging emission unit group includes the following processes and process equipment:<br>1. Loading scrap bundles into Number 25 and Number 26 Furnaces.<br>2. Transfer of hot metal from the hot metal ladles into the Number 25 and Number 26 Furnaces.<br>3. Three sided enclosures and integral secondary fume hoods for fumes generated during the above charging operations referred to as "secondary emissions)<br>Charging operation "secondary emissions" are captured by the secondary emission control system baghouse (the BOP No. 1 Baghouse). | Permanent idle |
| EG2BOF-VESSELS | Basic Oxygen Furnace Vessels, Including:<br>1. Two main Basic Oxygen Process Vessels (BOP Vessels)<br>(Basic Oxygen Furnace No. 25 and Basic Oxygen Furnace No. 26)<br>2. Primary emission control system including an electrostatic precipitator and ancillary equipment.<br>3. Primary emission control system opacity monitor. | Permanent idle |
| EG2BOPFURNCE#25, EG2BOPFURNCE#26 | Tapping Operations include tapping from the #25 and #26 Furnaces. Each furnace has a waste heat boiler hood that collects fumes generated during the oxygen blow, slagging and tapping operations. | Permanent idle |
| EG2BOP-FLUX-SYS | The Flux System Operations include the flux (Lime) material handling and ancillary equipment | Permanent idle |
| EGSLAG-PITA, EGSLAG-PITB, EGSLAG-PITD | Slag pits for blast furnaces A, B, and D | Temporary idle |
| EG80MILLFURNCS | 80" hot strip mill including five natural gas and coke oven gas-fired steel slab reheat ovens. | Permanent idle. Also, there are generators here that have been removed |
| EGCOLDCLEANERS / EGPARTWASHERS | Any new cold solvent cleaner placed into operation after 7/1/1979 that is exempt from | UNKNOWN |

| | | |
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| | the requirements of R336.1201 pursuant to R336.1281(h) and R336.1285(r)(9iv) | |

**Temporary Boiler Permit – General Permit 7-22**

The last boiler was removed from the site as of 11/4/2022. Permit needs to be voided.

**APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS**

Reviewed fugitive dust logs and did not observe any recurring issues.

**MAERS REPORT REVIEW**

2022 MAERS report appears to be correct for the emission units evaluated.

**FINAL COMPLIANCE DETERMINATION**

At this time, the facility appears to be in compliance with conditions evaluated in this report.

NAME V Wilke DATE 10/6/23 SUPERVISOR April L. Nadolny 10/10/23