

Fact Sheet



For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-02900001-2017**
Application Received: **April 12, 2016**
Plant Identification Number: **029-00001**
Permittee: **ArcelorMittal Weirton LLC**
Mailing Address: **100 Pennsylvania Avenue, Weirton, WV 26062**

Revised: N/A

Physical Location: Weirton, Hancock County, West Virginia
UTM Coordinates: 533.70 km Easting • 4474.50 km Northing • Zone 17
Directions: From US 22 take Exit 2 to WV-2 North to Downtown Weirton. Continue on WV-2 approximately 3 miles. Approaching the 10th traffic light, at Pennsylvania Avenue, turn right into the driveway of the Mill Administration Building.

Facility Description

ArcelorMittal Weirton LLC operates a steel finishing facility that includes a Strip Mill with steel pickling and cold rolling operations, Tin Mill with tempering and electrolytic plating (tin and chrome), Hydrogen Plant, and Boilers. Other operations at the facility include emergency generators, storage tanks, wastewater treatment plants and support/maintenance shops.

In the previous Title V permits, the facility operations had been divided into three parts: Part 1 included the Boilers and emergency generators, Part 2 included the Cold operations and hydrogen plant, and Part 3 included the Hot operations, which are permanently shutdown. This permit now combines Parts 1 and 2, which is now the entire facility.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2015 Actual Emissions
Carbon Monoxide (CO)	211.78	111.65

Regulated Pollutants	Potential Emissions	2015 Actual Emissions
Nitrogen Oxides (NO _x)	235.99	157.79
Particulate Matter (PM _{2.5})	14.48	5.75
Particulate Matter (PM ₁₀)	29.56	11.62
Total Particulate Matter (TSP)	91.79	44.11
Sulfur Dioxide (SO ₂)	2.33	0.91
Volatile Organic Compounds (VOC)	39.49	22.36

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2015 Actual Emissions
Formaldehyde	0.28	0.11
Hydrochloric Acid	6.53	1.38
Chromium	0.46	0.19
Hexane	6.66	2.55
Nickel	2.63	0.01

Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

This facility has the potential to emit 211.78 tons per year of Carbon Monoxide and 235.99 tons per year of Nitrogen Oxides. Due to this facility's potential to emit over 100 tons per year of criteria pollutants, ArcelorMittal Weirton LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State: 45CSR2	PM emission limits
45CSR6	Open burning prohibited
45CSR7	Manufacturing sources PM emission limits
45CSR10	SO ₂ emission limits
45CSR11	Standby plans for emergency episodes
45CSR13	Construction Permits
45CSR16	Performance Standards for New Stationary Sources
WV Code § 22-5-4(a)(14)	The Secretary can request any pertinent information such as annual emission inventory reporting
45CSR30	Operating permit requirement
45CSR34	HAPs emission standards
40 CFR 60 Subpart Dc	NSPS for small, industrial boilers
40 CFR 60 Subpart IIII	NSPS for Stationary Compression Ignition Internal Combustion Engines

40 CFR 61	Asbestos inspection and removal
40 CFR 63 Subpart CCC	Steel Pickling - HCl Process MACT
40 CFR 63 Subpart ZZZZ	Reciprocating Internal Combustion Engine MACT
40 CFR 63 Subpart DDDDD	Industrial Boiler MACT
40 CFR 63 Subpart CCCCC	Gasoline Dispensing Facilities MACT
40 CFR 82 Subpart F	Ozone depleting substances

State Only: 45CSR4 No objectionable odors.

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 CFR Part 61 (NESHAPs), and 40 CFR Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
CO-SIP-C-2003-28	July 30, 2003	
R13-0032C	February 9, 2016	
R13-3075	August 13, 2013	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

This is a third renewal. The following changes have been made since the last permit revision was issued:

Emission Units Table - Several emission units are no longer in service and have been removed from the Table including: Hot Strip Mill, No. 7 Tandem Mill, No. 8 Skin Mill, all HCl Regeneration Units, Veolia Lime Storage Tank, Continuous Annealing Line 1, No. 1 Weirlite Temper Mill, No. 4 Temper Mill, and No. 5 Tin/Chrome Plating Line. These sources have no NSR permits associated with them. Reheat Furnaces 1 and 2 have been removed and their associated NSR permits have been declared inactive. Additionally, four (4) emergency generators were added to the Table.

Condition 3.7.2.d. was revised to eliminate the exemption for tank OB6/1 because the tank has been removed.

Previous permit Part 1 of 3:

- Boilers 1 and 2 are no longer operating and HP Boilers 3, 4, and 5 have been decommissioned, therefore the following old permit conditions were not included in the renewal permit: 4.1.2., 4.1.8., 4.1.12., 4.2.4. through 4.2.7., 4.3.1. through 4.3.3., 4.4.1., and 4.5.1. Appendix B was removed because Condition 4.1.8., which referred to it, was removed.

- Old Conditions 4.1.9., 4.2.3., 4.5.3., and Appendix A were removed because 45CSR40 - CAIR NO_x Ozone Season Trading Program rule no longer applies to the facility since the replacement of the boilers with natural gas fired boilers which are less than 250 mmBtu/hr each.
- Old Condition 4.1.10. was deleted because this facility became an area source of HAPs before the existing source compliance date.
- Old Condition 4.1.11.c., now Condition 9.1.7.c., was updated because boilers S108, S110, and S111 have continuous oxygen trim systems, which require tune-ups once every five years. Boilers S112 and S113 still require annual tune-ups.
- Old Condition 4.1.13. was deleted because the one time energy assessment has been completed.
- Old Conditions 4.2.1., 4.2.2., and Appendix C were removed because the new natural gas boilers are exempt from the requirement to have Rule 2 and 10 Monitoring Plans in accordance with 45CSR §2-8.4.b. and 45CSR §10-10.3.

Previous permit Part 2 of 3:

- Old Section 4.0 and Conditions 3.7.2.a. and b. were deleted because the Reheat Furnaces have been removed and permits R13-1137 and R13-1310 have been declared inactive.
- Conditions 4.1.2. and 4.1.5. were updated to remove Continuous Annealing Line 1 because it is no longer in service.
- Conditions 5.1.2., 5.1.3., and 5.1.4. were updated to remove the Hot Strip Mill, No. 8 Skin Mill, No. 5 Tin/Chrome Plating Line, No. 1 WeirLite Temper Mill, No. 4 Temper Mill, and No. 7 Tandem Mill because these sources are no longer in service.
- Section 6.0 - Lime Storage Silo 095 was removed because it is no longer in service.
- Section 7.0. - The HCl Regeneration Units are no longer in service, therefore they were removed from the heading and the conditions. The remaining conditions were renumbered. The headings for Monitoring, Testing, Recordkeeping, and Reporting Requirements were rearranged to be consistent with the rest of the permit. Updated language for 40 CFR 63 Subpart CCC which was revised in 2012.
- Acid Tank, HCl-T, requirements were moved to Section 8.0. because it serves the Tin Mill and not the Pickling line, therefore it is not subject to the Pickling MACT requirements.

Indirect Fired Combustion Sources - Section 4.0. - In accordance with 45CSR§2A-3.1.b., the Jumbo Anneals and Continuous Annealing Lines are exempt from the visible emission testing and weight emission testing requirements of section 5, and the monitoring plan requirements of section 6. In accordance with 45CSR§10-10.3., these sources are exempt from the testing, monitoring, recordkeeping and reporting requirements of section 8. In accordance with 45CSR§2-11.1., the three anode shop melting pots are exempt from 45CSR2 sections 4, 5, 6, 8, and 9 (weight emission standards; fugitive particulate matter; registration; testing, monitoring, recordkeeping and reporting; and start-ups, shutdowns and malfunctions; respectively). In accordance with 45CSR§10-10.1., these sources are exempt from 45CSR10 section 3 (sulfur dioxide weight emission standards) and sections 6 through 8 (registration; permits; and testing, monitoring, recordkeeping, and reporting; respectively).

40 CFR 60 Subpart IIII - Section 10.0. - The four new Cummins emergency generators are subject to this NSPS because they are compression ignition (CI) engines and were installed after 2007. The engines must be certified that they meet emission standards, must be operated and maintained to achieve those standards over the life of the engine, and are subject to hourly limitations in emergency mode. Testing is required only if the

engines are not maintained according to manufacturer's written instructions. The requirements have been added to Section 10.0 of the permit.

40 CFR 63 Subpart ZZZZ - Section 11.0. - The Caterpillar engine is a CI engine installed in 1990. As an existing emergency engine greater than 500 HP at a facility that was major for HAPs, it had no requirements from Subpart ZZZZ. The facility was designated as an area source for HAPs when the boilers were replaced and the HCl regeneration units were removed in 2016. Because the engine was not subject to Subpart ZZZZ previously, the "once in, always in" determination cannot be made here. Therefore, the engine has new requirements from Subpart ZZZZ, which have been included in Section 11.0. of the permit. The Cummins engines are also subject to Subpart ZZZZ, but in accordance with 40 CFR §63.6590(c)(7), these engines meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements in 40 CFR 60 Subpart IIII.

40 CFR 63 Subpart CCCCCC Area Source NESHAP - Gasoline Dispensing Facilities requirements were added in Section 12.0.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

- a. Civil Consent Decree 5-96-CV-171 - has been terminated in accordance with Section XXXVIII.B. The permittee has certified completion and compliance with all requirements.
- b. 40 CFR 60, subparts K, Ka, and Kb - The storage tanks associated with the Cold Side of the facility are not subject to these subparts because the tanks were not constructed within the time frames.
- c. 40 CFR 63 Subpart N - NESHAPs for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks. Continuous chromium electroplating of steel is different from the chromium electroplating operations regulated in the existing NESHAP standard. Therefore, 40 CFR 63 Subpart N is not applicable to this facility.
- d. 40 CFR 63 Subpart Q - NESHAP for Industrial Process Cooling Towers. No chromium-based water treatment chemicals are used at the facility.
- e. 40 CFR 63 Subpart T - National Emissions Standards for Halogenated Solvent Cleaning. No halogenated solvent cleaning machines exist at the facility.
- f. 40 CFR Part 63, Subparts DDDDD and JJJJJ (Boiler MACTs) - Permit R13-0032C was issued to remove the HCl Acid Regeneration Units 1, 2, 3 and 4 which have been permanently shut down. The facility is now designated as an Area Source for hazardous air pollutants (HAPs). This designation allows the Jumbo Anneals, Continuous Annealing lines, Anode Pots, and natural gas fired comfort heating equipment to become subject to the area source boiler MACT, 40 CFR 63, Subpart JJJJJ, however 40 CFR §63.11195(e) exempts gas-fired boilers. The new natural gas fired boilers will remain subject to the 40 CFR 63 Subpart DDDDD because of the "once-in, always-in" requirement.
- g. A Permit Determination form, dated December 10, 2002, and received by this Office on December 12, 2002 was submitted for the installation of a Polymer coating line. No permit was required based on information received in the Permit Determination form.
- h. Hydrogen Reforming Facility - The Methane Hydrogen Reformer was constructed in 1995 by BOC Gases Division after a Rule 13 permit determination deemed that no permit was necessary. In April 2009, ownership was transferred to ArcelorMittal Weirton, Inc. Since there are no applicable requirements on this equipment, it was not included in the Title V permit.

- i. 40 CFR Part 64 - Compliance Assurance Monitoring - The Tandem Mills and the Chrome and Tin Plating Lines have PM emission limitations but no PM control devices. The control devices are for VOC emissions but there are no VOC emissions limitations for these sources, therefore these sources do not meet the applicability requirements of 40 CFR §§ 64.2(a)(1) and (2).

The HCl Storage Tanks, Lime Storage Silos and Roll Shot Blasters are not major sources and do not meet the applicability requirement of 40 CFR § 64.2(a)(3).

The No. 5 Pickling Line is subject to 40 CFR part 63Subpart CCC and is exempt from CAM in accordance with 40 CFR § 64.2(b)(1)(i).

There are no control devices associated with the boilers or emergency generators. These and all other emission sources have no control devices and do not meet the applicability requirements of 40 CFR § 64.2(a)(2).

- j. 40 CFR 68 Risk Management Plans - The facility stores liquefied hydrogen, but engineering controls are in place to limit the amount of hydrogen stored to less than RMP threshold amounts, <10,000 lbs for a flammable substance. The rule does not apply at this time. An RMP Plan would be developed if thresholds are triggered for an applicable chemical.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: Friday, February 17, 2017

Ending Date: Monday, March 20, 2017

Point of Contact

All written comments should be addressed to the following individual and office:

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Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments (Statement of Basis)

ArcelorMittal Weirton LLC requested to:

Change condition 7.2.1.a.1. to delete annual testing, leaving requirement to test every 2½ years. Test results have indicated compliance, therefore the permit was revised.

Delete Cl2 from condition 7.3.1.c.1.v.

Change "acid plant scrubber" in condition 8.1.3. Changed to "fume scrubber 1C".
Include recordkeeping requirement from 40 CFR §63.11125(d). Condition 12.4.1. was revised to include this.

USEPA comments:

Condition 7.3. did not require subsequent testing and scrubber parameters should be added to the permit.

DAQ noted Condition 7.2.1.a.1. required subsequent testing and applicable 40 CFR 63 Subpart CCC requirements on operation and maintenance will be sufficient to demonstrate compliance.

Condition 8.1.3. requirements for good air pollution control procedures suggest that the facility should develop an O&M plan.

DAQ noted similar requirements in MACT language that do not require developing O&M plans and deems existing recordkeeping requirements as sufficient to demonstrate compliance.

Condition 9.1.3. requirements for operating and maintaining fuel burning units to minimize emissions suggest that the facility should develop an O&M plan.

DAQ noted requirement is from a SIP'd rule and that similar requirements in MACT language do not require developing O&M plans.

Condition 9.1.5. does not list the weight emission standards for SO₂.

DAQ noted the SO₂ emission standard is streamlined with Condition 9.1.7.e. which requires burning pipeline quality natural gas. The margin of compliance for SO₂ is large and compliance will be met by burning pipeline quality natural gas.