West Virginia Department of Environmental Protection  
Division of Air Quality

Fact Sheet

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

Permit Number: **R30-03500043-2018**  
Application Received: **February 20, 2018**  
Plant Identification Number: **035-00043**  
Permittee: **Constellium Rolled Products Ravenswood, LLC**  
Mailing Address: **P.O. Box 68, Ravenswood, WV 26164**

**Physical Location:** Ravenswood, Jackson County, West Virginia  
**UTM Coordinates:** 428.30 km Easting • 4,308.60 km Northing • Zone 17  
**Directions:** Located along Century Road off of WV State Route 2 just south of Ravenswood.

**Facility Description**  
Constellium Rolled Products Ravenswood, LLC (CRP) is a secondary aluminum operation covered under SIC code 3353. This facility melts aluminum in furnaces in the cast house. The metal is cast into ingot for further processing. From the cast house the aluminum is sent to the fabrication plant, which consists of hot rolling, cold rolling, plate, and general finishing. In fabrication, the metal is reheated to give it particular characteristics and rolled on one of the facility’s hot or cold mills. After the metal has been finished into coil or plate it is warehoused and prepared for shipping to the customer.

**Emissions Summary**

<table>
<thead>
<tr>
<th>Regulated Pollutants</th>
<th>Potential Emissions</th>
<th>2017 Actual Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>471</td>
<td>84.85</td>
</tr>
<tr>
<td>Nitrogen Oxides (NOx)</td>
<td>715</td>
<td>141.41</td>
</tr>
<tr>
<td>Particulate Matter (PM_{2.5})</td>
<td>485</td>
<td>65.14</td>
</tr>
<tr>
<td>Particulate Matter (PM_{10})</td>
<td>485</td>
<td>65.14</td>
</tr>
<tr>
<td>Total Particulate Matter (TSP)</td>
<td>701</td>
<td>97.18</td>
</tr>
<tr>
<td>Regulated Pollutants</td>
<td>Potential Emissions</td>
<td>2017 Actual Emissions</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO₂)</td>
<td>4</td>
<td>0.61</td>
</tr>
<tr>
<td>Volatile Organic Compounds (VOC)</td>
<td>333.8</td>
<td>248.08</td>
</tr>
</tbody>
</table>

\( PM_{10} \) is a component of TSP.

<table>
<thead>
<tr>
<th>Hazardous Air Pollutants</th>
<th>Potential Emissions</th>
<th>2017 Actual Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCl</td>
<td>393</td>
<td>26.28</td>
</tr>
<tr>
<td>Cl₂</td>
<td>0.1</td>
<td>0</td>
</tr>
<tr>
<td>HF</td>
<td>0.7</td>
<td>0</td>
</tr>
</tbody>
</table>

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

Title V Program Applicability Basis

This facility has the potential to emit over 100 tons per year of CO, NOₓ, PM₁₀, and VOC; over 10 tons per year of HCl; and over 25 tons per year of aggregate HAPs (HCl, Cl₂, and HF). Due to this facility's potential to emit over 100 tons per year of a criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, Constellium Rolled Products 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: 45CSR6

- 45CSR7
- 45CSR11
- 45CSR13
- 45CSR16
- WV Code § 22-5-4(a)(14)
- 45CSR30
- 45CSR34
- 40 CFR Part 61
- 40 CFR 60 Subpart III
- 40 CFR 60 Subpart JJJJ
- 40 CFR 63 Subpart RRR
- 40 CFR 63 Subpart ZZZZ
- 40 CFR 63 Subpart DDDDD
- 40 CFR Part 82, Subpart F

State Only: 45CSR4

- Open burning prohibited
- PM and Opacity limits for manufacturing sources
- Standby plans for emergency episodes
- Preconstruction permits
- Standards of Performance for New Stationary Sources
- The Secretary can request any pertinent information such as annual emission inventory reporting
- Operating permit requirement
- Emission Standards for HAPs pursuant to 40 CFR 63
- Asbestos inspection and removal
- Stationary CI Internal Combustion Engine NSPS
- Stationary SI Internal Combustion Engine NSPS
- Secondary Aluminum MACT
- Reciprocating Internal Combustion Engine MACT
- Boiler and Process Heater MACT
- Ozone depleting substances
- 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 CFR 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

<table>
<thead>
<tr>
<th>Permit or Consent Order Number</th>
<th>Date of Issuance</th>
<th>Permit Determinations or Amendments That Affect the Permit (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R13-0017</td>
<td>January 10, 1974</td>
<td></td>
</tr>
<tr>
<td>R13-0072</td>
<td>May 23, 1974</td>
<td></td>
</tr>
<tr>
<td>R13-0383A</td>
<td>August 5, 2011</td>
<td></td>
</tr>
<tr>
<td>R13-2102</td>
<td>July 1, 1997</td>
<td></td>
</tr>
<tr>
<td>R13-2376D</td>
<td>July 31, 2015</td>
<td></td>
</tr>
<tr>
<td>G60-C065</td>
<td>October 29, 2014</td>
<td></td>
</tr>
</tbody>
</table>

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 permit renewal for this facility. This renewal permit incorporates changes authorized by modification to NSR permit R13-2376C as R13-2376D. The following changes have occurred since the most recent permit was issued:

**Title V Boilerplate changes:** Conditions 3.5.3., 3.5.5. and 3.5.6. were changed to require electronic submittal of reports.

**Equipment changes:** The facility requested the following equipment be removed: Induction Furnace East (005P104), Induction Furnace West (005P105), Dross Cooler/Breaker (005P106), Rotary Furnace (005P142); and Walking Beam Furnace (006P104). However, the Induction Furnaces were permitted under R13-0017 and the Rotary Furnace was permitted under R13-2376, therefore these sources cannot be removed until the R13 permits are amended. The Dross Cooler/Breaker and the Walking Beam Furnace have been removed from the Equipment Table and any conditions associated with them have been deleted or modified. The Ingot Pusher Furnace (006P102) was added as authorized by permit R13-2376D.

**R13-2376D changes:**

The citations were changed to correlate with the modified R13-2376D permit. It should be noted that 40 CFR 63 Subpart RRR does not apply to the pusher furnace because the WVDAQ has previously determined that pusher furnaces are not affected sources under that rule.

The R13-2376 citations were deleted in the following conditions because the R13 permit no longer includes these applicable requirements: 3.1.11. through 3.1.15., 4.1.24., 4.2.1., 4.2.9., 4.2.13., 4.3.3., 4.3.4., 4.3.5., 4.3.7., 4.3.15., 4.3.16., 4.3.17., and 4.3.18. Old Conditions 4.1.3., 4.3.20. (second paragraph), 4.3.21., 4.3.22., 5.1.4., 5.3.1., 7.1.2. and 7.3.1. were deleted because R13-2376D no longer includes these requirements. The remaining conditions were renumbered.
Condition 4.3.19. was revised to correlate with R13-2376D, condition 4.2.1. Old Conditions 5.1.5. and 5.1.6., now 5.1.4. and 5.1.5., were revised to correlate with R13-2376D, conditions 4.1.1. and 4.1.6. and to add the Ingot Pusher Furnace. Conditions 3.1.9. and 3.1.10. were revised to add the Ingot Pusher Furnace (006P102).

Appendix A was deleted because permit R13-2376D no longer has emission limits or sample recordkeeping forms in an Appendix. Appendix B was renamed as Appendix A.

**40 CFR 63, Subpart DDDD:** Constellium does not have any boilers but operates several process heaters that must comply with the requirements of the Industrial, Institutional, and Commercial Boiler and Process Heater MACT. Natural gas fired process heaters do not have emission limitations but do have work practice requirements. All furnaces are in the units designed to burn gas 1 fuels subcategory. 23 of the Heat Soaking Pits (006P105) and the Coil Annealing furnaces (009P103) are below 5 mmBtu/hr each and are subject to Table 3, condition 1, requiring a tune-up of the process heaters every 5 years. The Reheat furnaces (006P109), Cold Roll Annealing furnaces (007P107), 60 foot Aging furnace (008P105), Aging furnace (008P111), Aging furnace #2 (008P114) and Coil Annealing furnaces (009P104) are between 5 mmBtu/hr and 10 mmBtu/hr each and are subject to Table 3, condition 2, requiring a tune-up of the process heaters biennially. 4 of the Heat Soaking Pits (006P105), the Ingot Pusher furnaces (006P119, 006P102), Preheat furnace (006P120), Salem 12 Zone Heat Treat furnace (008P102), 120 foot Aging furnace (008P104), Horizontal Heat Treat furnace (008P110), Horizontal Heat Treat furnace addition (008P112), and Horizontal Heat Treat furnace #2 (008P113) are greater than 10 mmBtu/hr each and are subject to Table 3, condition 3, requiring a tune-up of the process heaters annually. Permit condition 3.1.18.a. was revised and conditions 3.2.2 and 3.5.6. were added to incorporate the requirements from the MACT. The Walking Beam Furnace was removed and the Ingot Pusher Furnace (006P102) was added in the list of furnaces. Old condition 3.1.18.b. was deleted since the NOCS has been submitted. The heaters were required to have a one-time energy assessment and this has been conducted and notification submitted.

**40 CFR 63, Subpart RRR:** Updated conditions 4.2.13. and 4.4.6. and deleted old condition 4.5.1. in the Title V permit to match the updated MACT requirements. Added condition 4.1.17. to incorporate 40 CFR §63.1506(a)(5) and renumbered the remaining conditions.

**Emergency and non-emergency generators:** The previous permit listed the Cummins 755 hp engine (EG-1) and emergency engines. This renewal permit identifies the other engines as one non-emergency generator and five emergency generators. A summary of the engines is presented in the following table:

<table>
<thead>
<tr>
<th>Engine Manufacturer</th>
<th>Model No.</th>
<th>Engine Type</th>
<th>Installation Date</th>
<th>Rated Capacity BHP</th>
<th>Fuel</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waukesha</td>
<td>180DLC</td>
<td>CI</td>
<td>1950's</td>
<td>25 hp</td>
<td>Diesel</td>
<td>Emergency Pager</td>
</tr>
<tr>
<td>John Deere</td>
<td>RG608/A118395</td>
<td>CI</td>
<td>2001-2002</td>
<td>275 hp</td>
<td>Diesel</td>
<td>Emergency Fire Pump</td>
</tr>
<tr>
<td>Generac</td>
<td>128557600100</td>
<td>SI</td>
<td>2009</td>
<td>12 hp</td>
<td>Gas</td>
<td>Emergency Phone System</td>
</tr>
<tr>
<td>Ford</td>
<td>429</td>
<td>SI</td>
<td>1980's</td>
<td>220 hp</td>
<td>Gas</td>
<td>Emergency Deep Well</td>
</tr>
<tr>
<td>Ford</td>
<td>460</td>
<td>SI</td>
<td>1980's</td>
<td>220 hp</td>
<td>Gas</td>
<td>Emergency Deep Well</td>
</tr>
<tr>
<td>Mersino</td>
<td>1233606</td>
<td>CI</td>
<td>2012</td>
<td>35 hp</td>
<td>Diesel</td>
<td>non-emergency WWT</td>
</tr>
<tr>
<td>Cummins</td>
<td>DFEG-1342631</td>
<td>CI</td>
<td>2014</td>
<td>755 hp</td>
<td>Diesel</td>
<td>Emergency - Computers</td>
</tr>
</tbody>
</table>

The Waukesha 25 hp and John Deere 275 hp are existing CI emergency engines and are subject to 40 CFR 63 subpart ZZZZ. The Ford 429 and Ford 460 are existing 220 hp SI emergency engines and are also subject to 40 CFR 63 subpart ZZZZ. The Generac 12 hp is an emergency SI engine installed in 2009 and is subject to
40 CFR 60 subpart JJJJ. The Mersino 35 hp is a non-emergency CI engine installed in 2012 and is subject to 40 CFR 60 subpart III.

The previous permit included the 40 CFR 63 subpart ZZZZ requirements, but the following changes were made to clarify applicability: the citations in conditions 9.1.2., 9.1.3., 9.1.4., 9.2.1., and 9.4.2. were changed to list the Waukesha, John Deere, Ford 429 and Ford 460 engines; conditions 9.1.5. and 9.5.2. were deleted since the engines are not used for peak shaving or any financial contract. The remaining conditions were renumbered.

The Mersino engine requirements from 40 CFR 60 subpart III were added as condition 9.1.10. and the engine was added in the citation of conditions 9.1.8., 9.2.3., and 9.2.4. In accordance with 40 CFR §63.6590(c)(7) there are no specific requirements in the RICE MACT for new CI engines less than 500 hp. The only requirement is compliance with the New Source Performance Standards (NSPS) at 40 CFR 60, Subpart III for CI engines.

The Generac engine requirements from 40 CFR 60 subpart JJJJ were added as conditions 9.1.11., 9.2.5., and 9.4.7. In accordance with 40 CFR §63.6590(c)(6) there are no specific requirements in the RICE MACT for new emergency engines less than 500 hp. The only requirement is compliance with the New Source Performance Standards (NSPS) at 40 CFR 60, Subpart JJJJ for SI engines.

All emergency engines have a non-resettable hour meter to demonstrate compliance with the operational limitation of 100 hours per year (hr/yr) for maintenance checks and readiness testing and the maximum limit of 50 hr/yr for non-emergency use. Constellation has developed and implemented an Operations and Maintenance Plan to ensure continuous regulatory compliance and proper operation of the emergency engines.

**CAM:** The Constellation facility has two demisters (007C101 and 007C102) that are potentially subject to the CAM regulation. These demisters would be potentially subject when controlling emissions from the following sources:

1) 007C101 controlling the 72 Inch Single Stand Cold Mill 384 (007P101)
2) 007C102 controlling the 72 Inch Tandem Stand Cold Mill 382 (007P102)

Presently both of the Cold Mills are not operational. Title V Permit Condition 6.1.7 requires Constellation to develop and submit a CAM plan that meets the requirements of 40 CFR Part 64 at least 90 days prior to the proposed restart date of either piece of equipment. The requirements of the CAM plan will be submitted as part of a Title V Modification and Constellation cannot restart either piece of equipment until the Title V Permit Modification has been approved.

The equipment added since the most recent permit was issued, the Ingot Pusher Furnace and the emergency and non-emergency engines, are not subject to CAM in accordance with 40 CFR §64.2(a)(2) because they have no emission controls.

**Non-Applicability Determinations**

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

45CSR10 - “To Prevent and Control Air Pollution from the Emission of Sulfur Oxides.” 45CSR§10-4.1.e exempts manufacturing process source operations from the 45CSR§10-4.1 sulfur dioxide concentration limit of 2,000 ppm, if the potential to emit from the manufacturing process source operation is less than 500 pounds per year of sulfur oxides. All manufacturing process source operations at CRP have the potential to emit less than 500 lbs/year of sulfur oxides.
40 CFR 60, Subpart Dc – "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units." The facility does not operate any boilers. All steam is purchased from the adjacent facility; therefore, 40 CFR 60, Subpart Dc does not apply.

40 CFR 60, Subpart Kb – "Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. 40 CFR 60, Subpart Kb, as amended on October 15, 2003, applies to each storage vessel with a capacity greater than or equal to 75 m³ that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. All tanks at this facility which store volatile organic liquid were either installed before July 23, 1984 or have a storage capacity of less than 75 m³.


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: Tuesday, August 28, 2018
Ending Date: Thursday, September 27, 2018

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

Bobbie Scroggie
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1225 • Fax: 304/926-0478
Bobbie.Scroggie@wv.gov

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)
It was noted that the 2017 Actual Emissions of VOCs were higher than the Potential Emissions that were submitted by the facility. Since this is not possible, the calculations were investigated. The facility did not include the potential emissions for the Induction Furnaces and the Rotary Furnaces since they requested to have them removed. Adding these potential emissions back in as well as including the fugitive emissions from the 66 Inch Coil Processing Line, 120 Inch Wide Level Line, and the Cut to Length Line, increases the VOC potential emissions to 333.8 tons per year. The Emissions Summary table was revised to reflect this.