

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: **R30-03500002-2010**  
Application Received: **February 2, 2009**  
Plant Identification Number: **035-00002**  
Permittee: **Century Aluminum of West Virginia, Inc.**  
Facility Name: **Ravenswood Operations**  
Mailing Address: **P.O. Box 98 Ravenswood, WV 26164-0098**

*Revised N/A*

---

Physical Location: Ravenswood, Jackson County, West Virginia  
UTM Coordinates: 428.30 km Easting • 4308.6 km Northing • Zone 17  
Directions: Facility located along Century Road (County Route 20/2) off of WV  
State Route 2 just south of Ravenswood, Jackson County

---

## Facility Description

Century Aluminum of West Virginia, Inc. (Century Aluminum) is one of the world's largest primary aluminum plants. The aluminum facility consists solely of the reduction division. The reduction plant is made up of material handling/unloading, green carbon mixing/pressing, anode block baking, rodding, and electrolytic reduction.

## Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2008 Actual Emissions
Carbon Monoxide (CO)	24,456	18,760
Nitrogen Oxides (NO <sub>x</sub> )	74	39
Particulate Matter (PM <sub>10</sub> ) <i>PM<sub>10</sub> is a component of TSP.</i>	2246	767
Total Particulate Matter (TSP)	2246	767

Sulfur Dioxide (SO <sub>2</sub> )	4255	2636
Volatile Organic Compounds (VOC)	67	43
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2008 Actual Emissions</b>
Hydrogen Fluoride	219	161
Polycyclic Organic Material	15	5

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

**Title V Program Applicability Basis**

Due to this facility's potential to emit over 100 tons per year of CO, PM, and SO<sub>2</sub>, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, Century Aluminum 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 limits on boilers.
	45CSR6	Open burning prohibited.
	45CSR7	PM limits on manufacturing processes.
	45CSR10	SO <sub>2</sub> limits.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Construction Permits.
	45CSR30	Operating permit requirement.
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 60, Subpart Dc	New Source Performance Standards for boilers.
	40 C.F.R. Part 63, Subpart LL	HAP Emission Standards - Primary Aluminum MACT.
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.

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

The Secretary's authority to request any pertinent information such as annual emission inventory reporting is provided in WV Code § 22-5-4(a)(14). The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. 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 (if any)
R13-0348	December 23, 1977	

R13-201R	June 10, 1997	
R13-2140A	August 29, 2003	
R13-2431A	March 17, 2009	

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 B," which may be downloaded from DAQ's website.

## Determinations and Justifications

This is a renewal of the Title V permit. The following changes have occurred since the original Title V permit was issued:

**Equipment Table** - The Equipment Table was modified to include the Installation Dates and Design Capacities, which were submitted in the renewal permit application.

A typographical error was discovered during the renewal permit review. There was no condition numbered 9.1.8. This was corrected in the renewal permit and subsequent conditions were renumbered. In addition, Condition 9.5.2.8. should have referenced the Pitch Storage Tanks requirements in Condition 9.1.9. of the renewal permit, therefore this reference was added.

**45CSR7** - The PM emission limits from 45CSR§7-4.1., which are based on manufacturing process source's process weight rate were recalculated based on any updated design capacities submitted in the renewal permit application. If necessary, the PM emission limits were revised in the Tables in Sections 4.1.1., 5.1.1., 7.1.3., and 9.1.1. of the Title V Permit. Original Permit Condition 7.1.9., which referenced 45CSR§7-5.2. was deleted since it was redundant with Condition 3.1.9. of the renewal permit.

**45CSR13** - Permit R13-2431A was issued, which authorizes the installation of a new crucible and siphon cleaning system. The permit contains PM and PM<sub>10</sub> emission limits, and requires emissions to be controlled by a baghouse that is installed, maintained and operated to achieve a minimum control efficiency of 99.9%. The pressure drop across the baghouse must be monitored and recorded to demonstrate compliance with the conditions of the NSR Permit. It has been determined that this is sufficient to demonstrate compliance for Title V purposes. Permit R13-2431A, Condition 4.3.5. contained a typographical error by referencing "maximum processing rate limit" when baghouse pressure drop was the limitation. The typo was corrected in Condition 7.4.3. of the Title V renewal permit.

**40 C.F.R. Part 63 Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters** - Century Aluminum of West Virginia, Inc. submitted their initial notification for Boilers No. 2, No. 4, and No. 5 on January 11, 2005.

The United States Court of Appeals for the District of Columbia Circuit on July 30, 2007 ruled the Boiler MACT, 40 C.F.R. Part 63 Subpart DDDDD, be vacated and remanded. As a result of the court's decision, a MACT for this source category will have to be implemented via a 112(j) case-by-case MACT determination or a subsequent 40 C.F.R. Part 63 proposal. Per DAQ's "Interim Guidance for Existing Sources – Boiler and Process Heater MACT Vacature," dated September 7, 2007, the DAQ does not intend to implement the provisions of the Boiler and Process Heater MACT for existing sources at this time. US EPA will be issuing guidance regarding the 112(j) case-by-case MACT determination of equivalent emission limitation in the future. Due to these facts, the 40 C.F.R. Part 63, Subpart DDDDD Boiler and Process Heater MACT requirements for

Boilers No. 2, No. 4, and No. 5 in Sections 8.1.16., 8.1.17., 8.2.5., 8.3.3., 8.3.4., 8.4.4., 8.4.5., 8.5.3., and 8.5.4. of the Title V Permit, as well as the citation of authority in Sections 8.4.2. and 8.4.3., were removed. After consultation with US EPA Region III in which DAQ was informed that 112(j) applied to the vacated standard 40 C.F.R. 63, Subpart DDDDD, “National Emission Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters”, but that no date of becoming subject was known, the agency determined that inserting a permit condition to address this situation to allow for a permit application shield while US EPA was in the process of re-proposing and re-promulgating a MACT standard was a reasonable course of action and use of limited resources. The agency’s current position to delay the 112(j) reviews is based on the September 10, 2009 order filed by the United States District Court for the District of Columbia for US EPA to issue a new Boiler and Process Heater MACT to be proposed by April 15, 2010 and promulgated by December 16, 2010; to maintain national consistency; and to most effectively use agency resources.

**Non-Applicability Determinations**

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

45CSR5 - The facility is exempt from this rule in accordance with Section 2.4.a., a facility that is designed to process less than two hundred (200) tons of coal per day; and Section 2.4.b., a facility subject to the requirements of 45CSR2, 45CSR3, 45CSR7;

40 C.F.R. Part 60 subparts K, Ka, Kb - The facility does not have any tanks that store volatile organic liquids with a capacity greater than 65,000 gallons (Subpart K), 40,000 gallons (Subpart Ka), or 19,813 gallons (Subpart Kb).

40 C.F.R. Part 60 Subpart Y - The provisions of this subpart are not applicable because the facility does not process more than 181 Mg (200 tons) of coal per day.

40 C.F.R. Part 64 - Compliance Assurance Monitoring  
 In accordance with 40 C.F.R. § 64.2(a)(3), the following emission units have potential pre-control device emissions of the applicable regulated air pollutant required to be classified as a major source:

Emission Unit ID	Description	Pollutant	Reason for exemption
002P301B	Bucket Elevator S-1. Screws K-12, K-13, K-14	PM	No control device [40 C.F.R. §64.2(a)(2)]
003P019	Building No. 52 Ring Furnace	SO <sub>2</sub>	No SO <sub>2</sub> control device [40 C.F.R. §64.2(a)(2)]
003P110	Building No. 53 Ring Furnace	SO <sub>2</sub>	
004P101-004P104	Reduction Cells Potroom 1A, 1B, 2A, and 2B	CO	No CO control device [40 C.F.R. §64.2(a)(2)]
004P201-004P204	Reduction Cells Potroom 3A, 3B, 4A, and 4B	CO	
004P101-004P104	Reduction Cells Potroom 1A, 1B, 2A, and 2B	Total Fluorides	Subject to 40 C.F.R. Part 63, Subpart LL. Exempt in accordance with 40 C.F.R. § 64.2(b)(1)(i).
004P201-004P204	Reduction Cells Potroom 3A, 3B, 4A, and 4B	Total Fluorides	

**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: February 25, 2010  
Ending Date: March 25, 2010

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

Bobbie Scroggie  
Title V Permit Writer  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57th Street SE  
Charleston, WV 25304

### **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.

### **Point of Contact**

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

### **Response to Comments (Statement of Basis)**

Not applicable.