

Fact Sheet



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

Permit Number: **R30-03500049-2019**
Application Received: **August 2, 2018**
Plant Identification Number: **03-054-035-00049**
Permittee: **Armstrong World Industries, Inc.**
Facility Name: **Armstrong Millwood Plant**
Mailing Address: **P.O. Box 220, Millwood, WV 25262**

Physical Location: Millwood, Jackson County, West Virginia
UTM Coordinates: 472.2 km Easting • 4,307 km Northing • Zone 17
Directions: From US-33 E, turn left onto WV 68 S. Continue on WV 68 S for 0.4 miles. Turn right onto WV 2 S. Continue for approximately 6 miles. Turn right onto Jack Burlingame Road.

Facility Description

The Armstrong World Industries Millwood plant is a slag wool manufacturing facility covered under SIC Code 3296. It typically manufactures slag wool from silicomanganese slag. The plant receives the slag via truck or railcar, stores the slag in outdoor piles, and then transfers the slag to a belt conveyor via front-end loader. The slag is then transferred to a submerged Electric Arc Furnace (EAF) where the slag is melted using graphite electrodes. The molten slag is then transferred to one of two spinners which spin the molten slag into slag wool fibers. The wool fibers are then collected in one of two collection chambers, further processed into slag wool bales, and then shipped off site.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions¹	2017 Actual Emissions²
Carbon Monoxide (CO)	242.15	147.5
Nitrogen Oxides (NO _x)	23.80	0.25
Particulate Matter (PM _{2.5})	93.96	23.3
Particulate Matter (PM ₁₀)	98.31	25.0
Total Particulate Matter (TSP)	110.05	32.1
Sulfur Dioxide (SO ₂)	245.03	22.6
Volatile Organic Compounds (VOC)	22.31	0.83
Hazardous Air Pollutants	Potential Emissions¹	2017 Actual Emissions²
Manganese Compounds	9.43	0.74
Total HAPs excluding Mn	0.01	Not reported

¹ Potential emissions are from Table 1 of Attachment I in the renewal application, but have been modified to exclude the suggested changes in the application concerning VOC limits for 3S and 4S; PM limits for 5S and 6S; and all emission limits for 7S.

² Actual emissions are from the State and Local Emissions Inventory System (SLEIS) Summary Report Total Emissions by Source.

Title V Program Applicability Basis

This facility has the potential to emit 242.15 tpy of CO and 245.03 tpy of SO₂. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Armstrong World Industries, Inc. 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	Open burning prohibited.
	45CSR7	PM limits on manufacturing processes
	45CSR10	Emissions of sulfur dioxides
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Construction permits
	45CSR16	New Source Performance Standards
	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	Emission Standards for HAPs
	40 C.F.R. Part 60 Subpart IIII	Stationary Compression Ignition Engines
		NSPS

	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 63 Subpart ZZZZ	RICE MACT
	40 C.F.R. Part 64	Compliance Assurance Monitoring (CAM)
	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 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 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 (<i>if any</i>)
R13-2864C	3/15/2018	

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

- I. **40 C.F.R. Part 64 - Compliance Assurance Monitoring (CAM).** According to its preamble, the purpose of this regulation is to require owners or operators of major stationary sources of air pollution that are required to obtain a Title V permit to conduct monitoring that satisfies particular criteria established in the rule to provide a reasonable assurance of compliance with applicable requirements under the Clean Air Act.

Initial Title V Permit Review

This regulation was considered in the technical review for the initial Title V permit. At that time, it was determined that the Electric Arc Furnace (EAF) is the only emission unit with emissions great enough to meet the applicability requirement of 40 C.F.R. §64.2(a)(3). However, according to the CAM requirements of 40 C.F.R. §64.5(b), CAM plans for PSEUs with potential post-control emissions less than the major source thresholds are not required to submit a CAM plan as part of the initial permit application. For the initial Title V permit, the EAF was exempt from the CAM requirements of 40 C.F.R. Part 64 until the renewal of the facility's Title V permit. This permitting action is the first renewal of the Title V permit; therefore, the applicability of CAM has been reviewed herein.

Applicability

One of the three applicability criteria in §64.2(a) is that a *control device* (as defined in §64.1) must be utilized to meet an emission limitation or standard for a regulated air pollutant applicable to a pollutant-specific emission unit (§64.2(a)(2)). As such, the Facility CAM Summary in Table 64-1 below will only examine the emission units that are equipped with a control device (or what appears to be a control device). Further, since CAM applies on a pollutant-specific basis (§64.2(a)), only the pollutant limitations that are met using a control device have been examined. For example, the Dry Lime Scrubber

only controls SO₂ emissions from 1S; consequently, only the SO₂ emission standard has been reviewed. The emission unit 1S is subject to limits on PM, NO_x, VOC, and CO, but control devices are not utilized to meet these limits; therefore, CAM is not applicable on a pollutant-specific basis to 1S for these pollutants.

Table 64-1: Facility CAM Summary

EUID	EU Description	CDID	Control Device Description	Pollutant	Emissions	CAM Applicability
1S	Raw Material Transfer and EAF	1C	EAF Scrubber	SO ₂	Post-control > 100 tpy	N/A per §64.2(b)(1)(vi). EAF is equipped & permitted with an SO ₂ CEMS.
1S	Raw Material Transfer and EAF	2C	EAF Dust Collector	PM/PM ₁₀ /PM _{2.5}	Pre-control > 100 tpy Post-control < 100 tpy	Applicable
3S	Spinner Collection Chamber #1	3C	Spinner #1 Dust Collector	PM/PM ₁₀ /PM _{2.5}	Pre-control > 100 tpy Post-control < 100 tpy	N/A. Inherent process equipment, used for the collection of wool fibers from the spinner.
4S	Spinner Collection Chamber #2	4C	Spinner #2 Dust Collector	PM/PM ₁₀ /PM _{2.5}	Pre-control > 100 tpy Post-control < 100 tpy	N/A. Inherent process equipment, used for the collection of wool fibers from the spinner.
5S	Housekeeping Vacuum System	5C	Housekeeping Vacuum System	PM/PM ₁₀ /PM _{2.5}	Not determined by the permittee for the 2019 renewal. See the discussion below.	N/A for this renewal since this system was never installed. However, if it is installed as permitted in R13-2864C, a CAM plan will be required of the permittee. See the discussion below.
6S	Hydrated Lime Silo	6C	Hydrated Lime Storage Silo	PM/PM ₁₀ /PM _{2.5}	Pre-control < 100 tpy	N/A. Due to the relatively small size of this bin vent (3,300 cfm), pre-control emissions are assumed by the permittee to be less than 100 tpy.
Fugitive	Haul Roads	WS	Wet Suppression	PM/PM ₁₀ /PM _{2.5}	No data	N/A per §64.1. Wet suppression is not a <i>Control device</i> as it does not “destroy or remove” pollutants.
15S/16S	Slag Wool Processing Lines #1 and #2	7C	Slag Wool Processing Dust Collector	PM/PM ₁₀ /PM _{2.5}	Pre-control > 100 tpy Post-control < 100 tpy	Applicable

The Housekeeping Dust Collector (5C) which controls particulate matter emissions from the Housekeeping Vacuum System (5S) is subject to the requirements of 40 C.F.R. Part 64 since the source meets the criteria in §§64.2(a)(1) through (3). The vacuum system is subject to PM emission limits (0.34 lb/hr and 1.50 tpy) in condition 4.1.1. and must utilize control device 5C to meet the limits. According to Attachment G in the initial Title V permit application, the control efficiency for 5C is 99.9%. As such, the pre-control emissions are estimated at (1.50 tpy) / (1 – 0.999) = 1,500 tpy. Permit condition 4.1.17. has been included in this renewal to require a CAM plan when 5S is constructed and utilized.

The permittee is proposing that CAM for the affected fabric filters (2C and 7C) be parametric monitoring of pressure differential across the filters to maintain it within ranges determined by the permittee to be appropriate based on historical pressure drop data. Additional detail for the CAM Plan was provided by the permittee in Attachment H of the renewal application, as well as in 3/14/2019 technical correspondence, which has been summarized in Table 64-2 below.

Table 64-2: CAM Plans for the EAF (1S) and Slag Wool Processing Lines #1 and #2 (15S, 16S)

Criteria	Indicator No. 1 of 1 for PM Emissions from the EAF (1S) controlled by Dust Collector (2C)	Indicator No. 1 of 1 for PM Emissions from the Slag Wool Processing Lines #1 and #2 (15S/16S) controlled by Dust Collector (7C)
I. <i>Indicator</i> <i>Measurement Approach</i>	Differential pressure across Furnace Dust Collector (2C) Emissions from the EAF are vented to and controlled by the Furnace Dust Collector (2C) prior to release to the atmosphere. This control device is designed to achieve a control efficiency of 99.9% for particulate matter emissions according to application Attachment G. The permittee will monitor the differential pressure across the dust collector to verify proper operation (4.2.3.).	Differential pressure across Fiber Line Baghouse (7C) Emissions from Lines #1 and #2 are vented to and controlled by the Fiber Line Baghouse (7C) prior to release to the atmosphere. This control device is designed to achieve a control efficiency of 99.9% for particulate matter emissions according to application Attachment G. The permittee will monitor the differential pressure across the baghouse to verify proper operation (4.2.3.).
II. <i>Indicator Range</i> <i>QIP threshold</i>	The static pressure drop across the 2C shall be within the range of 1.0 – 7.0 inches of water column. (4.2.13.). An excursion is defined as a static pressure drop across the dust collector outside the range 1.0 – 7.0 inches w.c. (4.2.15.). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 4.2.20., 4.4.9., and 4.5.4.). The permittee proposed a 10 percent threshold before implementing a QIP in accordance with 40 C.F.R. §64.8 (4.2.22.).	The static pressure drop across the 7C shall be within the range of 0.5 – 9.0 inches of water column. (4.2.14.). An excursion is defined as a static pressure drop across the dust collector outside the range 0.5 – 9.0 inches w.c. (4.2.16.). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 4.2.20., 4.4.9., and 4.5.4.). The permittee proposed a 10 percent threshold before implementing a QIP in accordance with 40 C.F.R. §64.8 (4.2.22.).
III. <i>Performance Criteria</i> A. <i>Data Representativeness</i> B. <i>Verification of Operational Status</i> C. <i>QA/QC Practices and Criteria</i> D. <i>Monitoring frequency</i> <i>Data Collection Procedure</i> <i>Averaging Period</i>	Furnace Dust Collector (2C) has the differential pressure continuously monitored and recorded once per operating day (4.2.3.). This frequency meets applicable minimum monitoring frequency requirement in §64.3(b)(4)(iii). Not applicable since there is no new monitoring equipment for this indicator (cf. §64.3(b)(2)), and the operational status of the existing monitoring equipment has already been confirmed. Under a preventative maintenance (PM) procedure, the differential pressure sensing device will be electrically tested semi-annually to verify correct readings and sending accurate data to the data logging system. Allowable tolerance is within 0.15 in. water column. If reading differs in a value greater than this, vendor will be called to calibrate the device. The vendor will be scheduled for a regular calibration visit every 3 years (4.3.3.). Daily (4.2.3.). This meets the minimum frequency criteria in §64.3(b)(4)(iii) for a post-control device non-major PSEU, which is at least once per 24-hr period. Daily observation by plant personnel of control device parameter monitoring data (4.2.3.). The permittee will record the pressure drop once per operating day. Since one reading of the parameter is recorded daily, there is no averaging period.	Fiber Line Baghouse (7C) has the differential pressure continuously monitored and recorded once per operating day (4.2.3.). This frequency meets applicable minimum monitoring frequency requirement in §64.3(b)(4)(iii). Not applicable since there is no new monitoring equipment for this indicator (cf. §64.3(b)(2)), and the operational status of the existing monitoring equipment has already been confirmed. Under a preventative maintenance (PM) procedure, the differential pressure sensing device will be electrically tested semi-annually to verify correct readings and sending accurate data to the data logging system. Allowable tolerance is within 0.15 in. water column. If reading differs in a value greater than this, vendor will be called to calibrate the device. The vendor will be scheduled for a regular calibration visit every 3 years (4.3.3.). Daily (4.2.3.). This meets the minimum frequency criteria in §64.3(b)(4)(iii) for a post-control device non-major PSEU, which is at least once per 24-hr period. Daily observation by plant personnel of control device parameter monitoring data (4.2.3.). The permittee will record the pressure drop once per operating day. Since one reading of the parameter is recorded daily, there is no averaging period.

CAM conditions 4.2.17. through 4.2.22., 4.4.9., and 4.5.4. have been incorporated into the permit to set forth the applicable requirements in 40 C.F.R. §§64.7(a) through (e) and §§64.8, 64.9(a), and 64.9(b). These conditions are standard for an operating permit that contains 40 C.F.R. Part 64 requirements. Note that all conditions that cite Part 64 also include a citation of 45CSR§30-5.1.c. as the State counterpart to require the monitoring.

II. Changes Requested in the Renewal Application. The following information was provided by the permittee in the renewal application.

- a. **Housekeeping Vacuum System.** The housekeeping vacuum system (Em. Unit ID: 5S) was never installed and should be removed from the permit.

Response: The requested change must first be made in the underlying permit R13-2864C and then the Title V permit can be revised. Consequently, the requested change has not been made in the renewal permit.

- b. **Glycol Additive Storage Tank.** The glycol additive storage tank (Em. Unit ID: 14S) has recently been deactivated and is slated for removal. The tank is being removed because the facility is using new surfactant/binder materials that are brought onsite in totes. Revised emissions estimates for surfactant/binder material usage are provided in Attachment I (Em. Unit IDs: 3S and 4S) and MSDS for these new materials are provided in Attachment J.

Response: The requested change must first be made in the underlying permit R13-2864C and then the Title V permit can be revised. Consequently, the requested change has not been made in the renewal permit.

- c. **Backup Generator and Diesel Storage Tank #1.** The emergency generator (Em. Unit ID: 7S) and associated diesel storage tank (Em. Unit ID: 12S) have incorrect specifications listed in the operating permit. The generator is a 500 kW Caterpillar generator equipped with a 762-hp engine, not a 565-kW Volvo unit. The associated diesel tank is 900 gallons, not 500 gallons. Revised emission unit forms are provided in Attachment E and revised emission estimates are provided in Attachment I.

Response: The requested changes cannot be performed utilizing Title V permitting procedures. The underlying NSR permit must be revised, and then the operating permit may be revised to reflect the NSR permit. The requested change has not been made in the renewal permit. The revised emission estimates in Attachment I have not been utilized in the above plant-wide emissions summary.

- d. **Hydrated Lime Storage Silo.** The hydrated lime storage silo bin vent (Control Device ID: 6C) is listed in the permit as 3,300 cfm, but the emissions calculations were based on a 1,500 cfm exhaust flow rate. Revised emission unit forms are provided in Attachment E and revised emission estimates are provided in Attachment I.

Response: The requested changes cannot be performed utilizing Title V permitting procedures. The underlying NSR permit must be revised, and then the operating permit may be revised to reflect the NSR permit. The requested change has not been made in the renewal permit. The revised emission estimates in Attachment I have not been utilized in the above plant-wide emissions summary.

- e. **Slag Wool Processing Lines #1 and #2.** Armstrong requests that the design capacity for slag processing lines #1 and #2 (Em. Unit IDs: 15S and 16S) be revised to reflect a design capacity of 28,000 lb/hr on a “24-hour average” in order to accommodate process fluctuations.

Response: The requested changes cannot be performed utilizing Title V permitting procedures. The underlying NSR permit must be revised, and then the operating permit may be revised to reflect the NSR permit. The requested change has not been made in the renewal permit.

III. Additional Changes

- a. Section 1.1. – For Emission Unit 1S, the term “Electric Arc Furnace” has been added before its acronym EAF that has been written in parenthesis for this renewal. This addition provides clarity since the acronym appears several places throughout the permit.
- b. Condition 4.3.2. – A parenthetical reference to condition 4.3.1. has been added to specify the “above testing”. In 3/14/2019 technical correspondence, the permittee provided the most recent test results and resulting frequencies:
 - Initial NO_x and VOC testing (conducted on January 16 and 17, 2013) showed NO_x and VOC from the EAF (Em. Unit: 1S) at less than 10% of the limit so follow-up testing would only be required “Upon Director’s request”.
 - PM/PM₁₀ testing for the EAF is on a 5-year frequency based on the results of the most recent 2018 test (37.8% of the standard).
 - PM/PM₁₀ testing for the spinner chambers (3S and 4S) are on a 3-year frequency based on the results of the most recent 2018 test (71.2% of the standard).
 - According to the 2013 test report, Table 2-2, emissions of Mn from the EAF (Em. Unit: 1S) were 0.0003 lb/hr, which is less than the 0.28 lb/hr limit (Title V Table 4.1.1.2). Therefore, follow-up testing would only be required “Upon Director’s request”. Table 2-4 of the same report indicated combined Mn emissions from both spinner baghouses were 0.06 lb/hr, which is less than the aggregate limit of $2 \times (0.78 \text{ lb/hr}) = 1.56 \text{ lb/hr}$ (Title V Table 4.1.1.2). Therefore, follow-up testing would only be required “Upon Director’s request”.
- c. The reserved current Title V permit condition 4.4.3. has been removed. Subsequent conditions have been renumbered.
- d. 45CSR7 has been removed from the permit shield section since certain sources at the facility are subject to this rule.
- e. A footnote has been added to the emission units table in section 1.1. to define the acronym “WS”.

IV. 40 C.F.R. Part 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of §60.4200. The current operating permit includes requirements from this subpart that were incorporated via the underlying permit R13-2864, issued on May 27, 2011, for the CI ICE identified as emission unit 7S. The initial NSR permit R13-2864, through the current version R13-2864C, permit a Volvo Penta TAD1641GE 565-kW emergency generator. However, the Title V renewal application states that the unit is a 500-kW Caterpillar generator powered by a 762-hp CI engine, constructed in 2008, and installed in 2012 for emergency backup electric power when power is not available from the grid. The permittee provided a copy of the EPA Certificate of Conformity as part of 3/14/2019 technical correspondence and confirmed that no changes have been made to the engine. Therefore, the Subpart III requirements have been applied based upon utilizing a certified engine.

Subpart III was amended on June 28, 2011, and on July 7, 2016. Therefore, each section of the regulation has been reviewed to update as necessary the requirements and citations in the renewal Title V permit. Additionally, underlying permit R13-2864C, requirements 4.3.3. and 4.5.3., require compliance with all applicable testing and reporting requirements in Subpart III without specifying what those requirements are, if any. Therefore, this review will also determine which specific testing and reporting requirements are applicable. Table III below sets forth the applicability review of Subpart III for the engine 7S.

Table III

Subpart III	Title V	Discussion
§60.4200	None	No permit condition is warranted for this applicability section.
§60.4201	None	This section pertains to manufacturers of non-emergency engines. Since the permittee is not a manufacturer, this section is not applicable.
§60.4202	None	This section applies directly to manufacturers of emergency engines. This section is not directly applicable to the permittee since it does not manufacture engines. However, the requirements of this paragraph are incorporated by reference into the applicable requirement of §60.4205(b).
§60.4203	None	This section pertains to manufacturers of stationary CI internal combustion engines. Since the permittee is not a manufacturer, this section is not applicable.
§60.4204	None	This section pertains to owners or operators of non-emergency engines. Since the engine is for emergency use, this section is not applicable. Current Title V condition 6.1.2. cites §60.4204(b) for the pollutant emission limits (as does the NSR permit). The update to the citation of authority has been discussed below under §60.4205(b).
§60.4205(a)	None	This paragraph is applicable to pre-2007 model year emergency stationary CI ICE. According to the renewal application, the engine 7S was constructed in 2008; therefore, this paragraph is not applicable.
§60.4205(b)	6.1.2.	This paragraph is applicable to 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines. The paragraph requires such engines to comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

Subpart IIII	Title V	Discussion
		<p>The engine 7S meets the above criteria for §60.4205(b) to apply. Therefore, referenced §60.4202 has been reviewed to extract the applicable requirements.</p> <p>§60.4202(a) is applicable since the engine is later than 2007 model year, emergency type, with a maximum power less than 3,000-hp and a displacement less than 10 liters per cylinder and is not a fire pump engine. §60.4202(a) requires manufacturer certification to the emission standards specified in §§60.4202(a)(1) through (2). §60.4202(a)(1) is not applicable since it pertains to engines rated less than 50-hp. §60.4202(a)(2) is applicable since the rated power is greater than 50-hp. This paragraph requires the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR §89.112 and 40 CFR §89.113 for all pollutants beginning in model year 2007.</p> <ul style="list-style-type: none"> • Table 1 at §89.112(a) specifies the emission standards. Since the emergency generator is rated at 500-kW, and later than model year 2006, the applicable standards are the Tier 3 emission limits 4.0, 3.5, and 0.20 (g/kW-hr) for NO_x+NMHC, CO, and PM, respectively. This only changes the NO_x+NMHC limit in the current Title V from 6.4 to 4.0 g/kW-hr. The CO and PM standards remain the same for the renewal permit. • 40 CFR §89.113(c)(3) exempts constant-speed engines from the requirements of 40 CFR §89.113. Since an electric generator operates at constant speed, the requirements in §89.113 are not applicable. <p>The citation of authority for condition 6.1.2. has been changed to §60.4205(b).</p> <p>The remaining paragraphs in §60.4202 are not applicable for the following reasons:</p> <ul style="list-style-type: none"> • §60.4202(b) is not applicable since it pertains to engines greater than 3,000-hp. • §60.4202(c) is not applicable since it is reserved. • §60.4202(d) is not applicable since it pertains to fire pump engines. • §60.4202(e) is not applicable since the engine 7S does not meet any of the horsepower and cylinder displacement criteria in this paragraph. • §60.4202(f) is not applicable since it pertains to 2013, 2014, and later model year engines. • §60.4202(g) is not applicable since it pertains to engines used solely in either remote areas of Alaska and marine offshore installations. • §60.4202(h) is not applicable since it pertains to reconstructed engines.

Subpart III	Title V	Discussion
§60.4205(c)	None	This paragraph is not applicable since it pertains to fire pump engines.
§60.4205(d)	None	This paragraph is not applicable since it pertains to emergency engines with a displacement of greater than or equal to 30 liters per cylinder.
§60.4205(e)	None	This paragraph is applicable to owners of emergency engines with a displacement of less than 30 liters per cylinder who conduct performance tests in-use. Since the permittee confirmed in 3/14/2019 technical correspondence that the engine is certified and no changes have been made to render it non-certified, then no Subpart III testing requirement is applicable.
§60.4205(f)	None	This paragraph is not applicable since it pertains to modified or reconstructed emergency engines.
§60.4206	6.1.3.	This paragraph is applicable since it requires compliance with emission standards in §60.4205 over the entire life of the engine. The language in the current operating permit is from the underlying NSR permit, which is taken directly from an earlier version of Subpart III. Since all the content of the NSR permit requirement is derived from Subpart III, for the Title V renewal permit the entire condition has been replaced with the current language from §60.4206.
§60.4207(a)	None	This paragraph is no longer applicable since the date specified has passed and the requirement in §60.4207(b) is applicable.
§60.4207(b)	6.1.4.	This paragraph is applicable. The fuel specifications in §80.510(b) are for sulfur content, as well as minimum cetane index or aromatic content. The underlying permit requirement specifies the sulfur content from §80.510(b). The content of §80.510(b)(2) has been added for this renewal.
§60.4207(c)	None	This paragraph is not applicable since it is reserved.
§60.4207(d)	None	This paragraph is not applicable since it pertains to engines with a displacement of greater than or equal to 30 liters per cylinder.
§60.4207(e)	None	This paragraph is not applicable since the engine does not have a national security exemption under §60.4200(d).
§60.4208	None	The engine is already installed; therefore, this section regarding deadlines to import and install engines is not applicable.
§60.4209(a)	6.2.1.	The permittee's engine is an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines; therefore, the permittee must install a non-resettable hour meter prior to startup of the engine.
§60.4209(b)	None	The permittee's engine is not equipped with a diesel particulate filter to comply with the emission standards in §60.4204 (which are not applicable); therefore, this paragraph is not applicable.
§60.4210	None	This section pertains to manufacturers of engines. Since the permittee is not a manufacturer, this section is not applicable.
§60.4211(a)	6.1.5.a.	This section is applicable and is included in the current and renewal permit.
§60.4211(b)	None	This section is not applicable since the engine is not a pre-2007 model year stationary CI ICE.
§60.4211(c)	6.1.5.b.	This section is applicable and is included in the current and renewal permit.

Subpart III	Title V	Discussion
§60.4211(d)	None	This section is not applicable since the engine is not subject to emission standards specified in §60.4204(c) or §60.4205(d).
§60.4211(e)	None	This paragraph is not applicable since it pertains to modified or reconstructed emergency engines.
§60.4211(f)	6.1.6.	The requirements of this paragraph are not in the current operating permit but have been incorporated into the renewal operating permit. However, the requirements in §60.4211(f)(2)(ii) and (2)(iii), and §60.4211(f)(3)(i) have been excluded from the permit condition since the permittee confirmed in 3/14/2019 technical correspondence that the emergency generator is used strictly for providing emergency power and does not participate in peak shaving or load shedding. Portions of the regulatory language in the condition have been revised to remove references to the excluded paragraphs and thereby avoid confusion.
§60.4211(g)	6.1.5.c.	<p>§60.4211(g) is applicable and is included in the current and renewal permit as the first paragraph in condition 6.1.5.c.</p> <p>§60.4211(g)(1) is not applicable since the engine is not less than 100-hp.</p> <p>§60.4211(g)(2) is not applicable since the engine is greater than 500-hp.</p> <p>§60.4211(g)(3) is applicable and is included in the current and renewal permit as the second paragraph in condition 6.1.5.c. §60.4211(g)(3) has been added to the citation of authority.</p>
§60.4211(h)	None	This paragraph is not applicable since the engine is not equipped with an AECD.
Testing Requirements for Owners and Operators		
§60.4212(a)	None	Since the permittee confirmed in 3/14/2019 technical correspondence that the engine is certified and no changes have been made to render it non-certified, then no Subpart III testing requirement is applicable.
§60.4212(b)	None	This section is not applicable since the engine is not subject to emission standards for new CI engines in 40 C.F.R. part 1039.
§60.4212(c)	None	This section is not applicable since the engine is not subject to emission standards for new CI engines in 40 C.F.R. §89.112 or 40 C.F.R. §94.8.
§60.4212(d)	None	This section is not applicable since the engine is not subject pre-2007 model year engine emission standards.
§60.4212(e)	None	This section is not applicable since the engine is not subject to emission standards for new CI engines in 40 C.F.R. part 1042.
§60.4213	None	This section is not applicable since the engine does not have a displacement greater than 30 liters per cylinder.
Notification, Reports, and Records for Owners and Operators		
§60.4214(a)	None	This section is not applicable since the engine is an emergency type and is less than 3,000-hp; does not have a displacement greater than or equal to 10 liters per cylinder; and is not a pre-2007 model year engine.

Subpart III	Title V	Discussion
§60.4214(b)	None	This section is applicable to the engine in as far as the first statement provides that an initial notification is not required for emergency engines. In other words, the first statement applies an exemption to the engine. The second statement is applicable to engines starting with the applicable model year in Table 5 to Subpart III. Since the engine is greater than 175-hp, the starting model year is 2011. However, the engine is pre-2011; therefore, this recordkeeping requirement is not applicable.
§60.4214(c)	None	The engine is neither equipped with a diesel particulate filter nor is it required to be under Subpart III; therefore, this paragraph is not applicable.
§60.4214(d)	None	Though the emergency engine is rated greater than 100-hp, it neither operates nor is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §§60.4211(f)(2)(ii) and (iii) and does not operate for the purposes specified in §60.4211(f)(3)(i). This was discussed above concerning §60.4211(f) and Title V condition 6.1.6. For these reasons, the reporting under §60.4214(d) is not applicable.
§60.4214(e)	None	This paragraph is not applicable since the engine is not equipped with an AECD.
Special Requirements		
§60.4215	None	This section is not applicable since the engine is not located in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands.
§60.4216	None	This section is not applicable since the engine is not located in Alaska.
§60.4217	None	This section is not applicable since the engine combusts only diesel fuel.

V. **40 C.F.R. 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.** Regarding this regulation, the Fact Sheet for the initial Title V permit R30-03500049-2014 reads “Under 40 CFR §63.6590(c)(1), the backup generator is a new stationary RICE located at an area source of HAPs. In accordance with 40 CFR §63.6590(c), an affected source meets the requirements of 40 CFR Part 63, Subpart ZZZZ by meeting the requirements for 40 CFR Part 60, Subpart III.” Regardless of why Subpart ZZZZ was not cited in previous permits, WVDAQ currently adopts and incorporates by reference the provisions of Subpart ZZZZ as specified in 45CSR§34-4.1. Therefore, the citation of this subpart has been added to the renewal. Moreover, 45CSR34 also has been added to the citations since the engine is subject to Part 63. The citation “40 C.F.R. §§63.6590(c) and (c)(1); 45CSR34” has been added to the existing citations of authority that include 40 C.F.R. 60 Subpart III sections (conditions 6.1.2. through 6.1.5.). This citation has been included with conditions 6.1.6. and 6.2.1. that have been added to the operating permit as part of this renewal. Note, however, that 40 C.F.R. §§63.6590(c) and (c)(1) have not been included with conditions 6.3.1. and 6.5.1. though these require compliance with Subpart III. This has been done because there are no applicable testing and reporting requirements from Subpart III (see Table III above). The NSR permit requirements stand alone and therefore have been included in the permit, but Subpart ZZZZ is not the authority that supports the requirements.

VI. **Status of Consent Order CO-R13-E-2018-09.** This CO was entered on 8/28/2018 to address violations for which a notice of violation (NOV) was issued by the Director to the permittee on 2/26/2018. These violations were related to failure to timely and properly stack test the facility's electric arc furnace and spinner chambers. The permittee properly retested the facility on 4/24/2018 and 4/25/2018 with passing results prior to issuance of the final CO. The permittee was required by the CO to pay a penalty, which was paid on 9/11/2018, effectively satisfying the requirements of the CO. A CO closure document dated 10/01/2018 was generated by DAQ Compliance & Enforcement. In the renewal application the permittee certified compliance with all permit limits. Based upon these facts, the CO does not affect the Title V renewal permit.

Non-Applicability Determinations

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

- a. **40 CFR 60 Subpart CC – Standards of Performance for Glass Manufacturing Plants.** The Millwood plant does not include glass melting furnaces, which are the affected facility to which this subpart applies (40 C.F.R. §60.290(a)). Therefore, this subpart is not applicable to the facility.
- b. **40 CFR 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants.** Slag does not meet the definition of nonmetallic mineral. In addition, the permittee installed a small propane-fired sand dryer (EUID 18S) permitted under R13-2864C. The source is used for drying batches (2,000 lb/hr) of sand used to collect tapped off metal material from the bottom of the EAF. The metal is tapped off onto a sand bed which must be dry due to its contact with molten metal. The sand drying operation is not subject to the Nonmetallic Mineral Processing Plants NSPS (Subpart OOO) because dryers are not an “affected facility” as listed by the regulation.
- c. **40 CFR 60 Subpart UUU – Standards of Performance for Calciners and Dryers in Mineral Industries.** The Electric Arc Furnace does not meet the definition of a calciner or dryer in §60.731 and is therefore not subject to this subpart. In addition, the permittee installed a small propane-fired sand dryer (EUID 18S) permitted under R13-2864C. The source is used for drying batches (2,000 lb/hr) of sand used to collect tapped off metal material from the bottom of the EAF. The metal is tapped off onto a sand bed which must be dry due to its contact with molten metal. The sand drying operation is not a Mineral processing plant as defined in §60.731 and is therefore not subject to the Calciners and Dryers in Mineral Industries NSPS (Subpart UUU) because sand and other regulated materials do not constitute the majority (>50%) of the materials processed at the Millwood facility. The vast majority of materials handled consist of slag (raw material) and slag wool (product) that are not listed materials.
- d. **40 CFR 63 Subpart DDD – National Emission Standards for Hazardous Air Pollutants for Mineral Wood Production.** The Millwood plant is not classified as a major HAP source because potential HAP emissions are < 10/25 tpy for any single/combination of HAPs. In addition, the EAF is not classified as a “cupola” and the plant does not operate a mineral wool “curing oven”. For these reasons the “mineral wool production NESHAP” at 40 CFR 63 Subpart DDD is not applicable.
- e. **40 CFR 63 Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.** The Millwood plant does not operate boilers and is therefore not subject to the Subpart JJJJJ Area Source ICI Boiler NESHAP.
- f. **45CSR17 - WV Fugitive emissions from material handling.** Per 45CSR§7-6.1. if sources are subject to 45CSR7 they are exempt from the requirements of this Rule.
- g. **45CSR19 and 45CSR21 WV NSR permitting for non-attainment areas and VOC Regulations.** The Millwood plant is not located in affected areas.

- h. **45CSR27 - WV Emissions of Toxic Air Pollutants.** The Millwood plant does not operate any “chemical processing units” and does not use listed chemicals.

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: June 11, 2019

Ending Date: July 11, 2019

Point of Contact

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

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West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
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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)

No comments were received from the public or U.S. EPA.