

# HENTHORN

Environmental Services

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December 12, 2017

William F. Durham, Director  
Division of Air Quality  
WV Department of Environmental Protection  
601 57<sup>th</sup> Street  
Charleston, West Virginia 25304

**Via Hand Delivery**

Re: WVA Manufacturing, LLC  
Application for Class II Administrative Update  
Facility ID No. 019-00001

Dear Mr. Durham:

Enclosed are the original and two electronic copies of the above-referenced application of WVA Manufacturing, LLC for an administrative update. Also enclosed is a check for \$300.00 for the associated permit application fee. The affidavit of publication will be filed with the agency once it is received from the newspaper.

Thank you for your assistance in this matter. Should you have any questions, please call me.

Sincerely,



Jennie L. Henthorn



*Specializing in Strategic Environmental Planning and Permitting*

# **WVA Manufacturing, LLC**

Alloy, West Virginia

Plant ID No. 03-54-019-00001

Application for  
Class II Administrative Update

December 12, 2017

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WEST VIRGINIA  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 DIVISION OF AIR QUALITY  
 601 57<sup>th</sup> Street, SE  
 Charleston, WV 25304  
 Phone: (304) 926-0475  
 www.dep.wv.gov/daq

**PERMIT DETERMINATION FORM  
(PDF)**

FOR AGENCY USE ONLY: PLANT I.D. # \_\_\_\_\_  
 PDF # \_\_\_\_\_ PERMIT WRITER: \_\_\_\_\_

1. NAME OF APPLICANT (AS REGISTERED WITH THE WV SECRETARY OF STATE'S OFFICE): <b>WVA Manufacturing, LLC</b>		
2. NAME OF FACILITY (IF DIFFERENT FROM ABOVE): <b>Alloy Facility</b>		3. NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS) CODE: <b>331112</b>
4A. MAILING ADDRESS: <b>Post Office Box 248 Alloy, WV 25002</b>		4B. PHYSICAL ADDRESS: <b>US Route 60, East Alloy, WV</b>
5A. DIRECTIONS TO FACILITY (PLEASE PROVIDE MAP AS ATTACHMENT A): <b>From Charleston, proceed east on US Route 60 to Alloy, WV. The facility is located on the right side of U.S. Route 60 at Alloy.</b>		
5B. NEAREST ROAD: <b>US Route 60</b>	5C. NEAREST CITY OR TOWN: <b>Alloy</b>	5D. COUNTY: <b>Fayette</b>
5E. UTM NORTHING (KM): <b>4,220.96</b>	5F. UTM EASTING (KM): <b>476.01</b>	5G. UTM ZONE: <b>17</b>
6A. INDIVIDUAL TO CONTACT IF MORE INFORMATION IS REQUIRED: <b>Roger Wagner</b>		6B. TITLE: <b>Manager, SHEA</b>
6C. TELEPHONE: <b>304-779-3379</b>	6D. FAX: <b>304-779-3297</b>	6E. E-MAIL: <b>rwagner@ferroglobe.com</b>
7A. DAQ PLANT I.D. NO. (FOR AN EXISTING FACILITY ONLY): <b>019-00001</b>	7B. PLEASE LIST ALL CURRENT 45CSR13, 45CSR14, 45CSR19 AND/OR TITLE V (45CSR30) PERMIT NUMBERS ASSOCIATED WITH THIS PROCESS (FOR AN EXISTING FACILITY ONLY): <b>R14-0017C, R13-2052, R30-01900001-2017</b>	
7C. IS THIS PDF BEING SUBMITTED AS THE RESULT OF AN ENFORCEMENT ACTION? IF YES, PLEASE LIST: <b>N/A</b>		
8A. TYPE OF EMISSION SOURCE (CHECK ONE): <input type="checkbox"/> NEW SOURCE <input checked="" type="checkbox"/> ADMINISTRATIVE UPDATE <input type="checkbox"/> MODIFICATION <input type="checkbox"/> OTHER (PLEASE EXPLAIN IN 11B)		8B. IF ADMINISTRATIVE UPDATE, DOES DAQ HAVE THE APPLICANT'S CONSENT TO UPDATE THE EXISTING PERMIT WITH THE INFORMATION CONTAINED HEREIN? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
9. IS DEMOLITION OR PHYSICAL RENOVATION AT AN EXISTING FACILITY INVOLVED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
10A. DATE OF ANTICIPATED INSTALLATION OR CHANGE: <b>ASAP – no physical change</b>		10B. DATE OF ANTICIPATED START-UP: <b>ASAP – no physical change</b>
11A. PLEASE PROVIDE A DETAILED PROCESS FLOW DIAGRAM SHOWING EACH PROPOSED OR MODIFIED PROCESS EMISSION POINT AS ATTACHMENT B. <b>N/A – No physical changes are proposed as part of this modification.</b>		
11B. PLEASE PROVIDE A DETAILED PROCESS DESCRIPTION AS ATTACHMENT C.		
12. PLEASE PROVIDE MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL MATERIALS PROCESSED, USED OR PRODUCED AS ATTACHMENT D. FOR CHEMICAL PROCESSES, PLEASE PROVIDE A MSDS FOR EACH COMPOUND EMITTED TO AIR.		

**13A. REGULATED AIR POLLUTANT EMISSIONS:**

⇒ **FOR A NEW FACILITY**, PLEASE PROVIDE PLANT WIDE EMISSIONS BASED ON THE POTENTIAL TO EMIT (PTE) FOR THE FOLLOWING AIR POLLUTANTS INCLUDING ALL PROCESSES.  
 ⇒ **FOR AN EXISTING FACILITY**, PLEASE PROVIDE THE PROPOSED CHANGE IN EMISSIONS BASED ON THE PTE OF ALL PROCESS CHANGES FOR THE FOLLOWING AIR POLLUTANTS.  
 PTE FOR A GIVEN POLLUTANT IS TYPICALLY BEFORE AIR POLLUTION CONTROL DEVICES AND IS COLLECTED BASED ON THE MAXIMUM DESIGN CAPACITY OF PROCESS EQUIPMENT.

POLLUTANT	HOURLY PTE (LB/HR)	YEARLY PTE (TON/YR) (HOURLY PTE MULTIPLIED BY 8760 HR/YR) DIVIDED BY 2000 LB/TON
PM	No Change	No Change
PM <sub>10</sub>		
VOCs		
CO		
NO <sub>x</sub>		
SO <sub>2</sub>		
Pb		
HAPs (AGGREGATE AMOUNT)		
TAPs (INDIVIDUALLY)*		
OTHER (INDIVIDUALLY)*		

\* ATTACH ADDITIONAL PAGES AS NEEDED

**13B. PLEASE PROVIDE ALL SUPPORTING CALCULATIONS AS ATTACHMENT E. N/A – No physical changes are proposed as part of this modification.**

CALCULATE AN HOURLY AND YEARLY PTE OF EACH PROCESS EMISSION POINT (SHOWN IN YOUR DETAILED PROCESS FLOW DIAGRAM) FOR ALL AIR POLLUTANTS LISTED ABOVE INCLUDING INDIVIDUAL HAP'S (LISTED IN SECTION 112[b] OF THE 1990 CAAA), TAP'S (LISTED IN 45CSR27), AND OTHER AIR POLLUTANTS (E.G. POLLUTANTS LISTED IN TABLE 45-13A OF 45CSR13. MINERAL ACIDS PER 45CSR7, ETC.).

**14. CERTIFICATION OF DATA**

I, STEVEN A. PRALLEY (TYPE NAME) ATTEST THAT ALL THE REPRESENTATIONS CONTAINED IN THIS APPLICATION, OR APPENDED HERETO, ARE TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE BASED ON INFORMATION AND BELIEF AFTER REASONABLE INQUIRY, AND THAT I AM A **RESPONSIBLE OFFICIAL**\*\* (PRESIDENT, VICE PRESIDENT, SECRETARY OR TREASURER, GENERAL PARTNER OR SOLE PROPRIETOR) OF THE APPLICANT.

SIGNATURE OF RESPONSIBLE OFFICIAL: 

TITLE: PLANT MANAGER DATE: 12 / 4 / 17

\*\* THE DEFINITION OF THE PHRASE 'RESPONSIBLE OFFICIAL' CAN BE FOUND AT 45CSR13, SECTION 2.23.

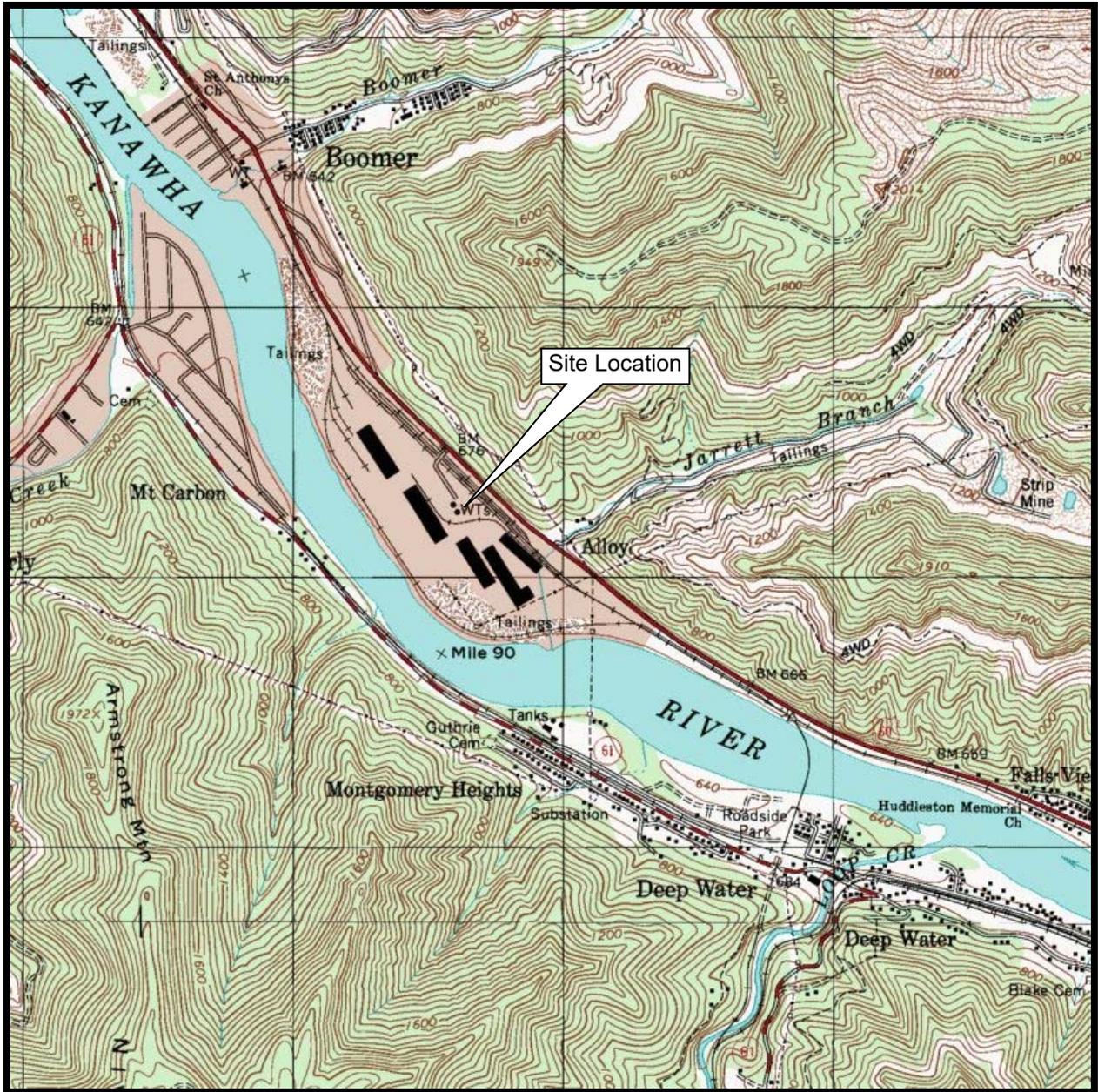
**NOTE: PLEASE CHECK ENCLOSED ATTACHMENTS:**

ATTACHMENT A     ATTACHMENT B     ATTACHMENT C     ATTACHMENT D     ATTACHMENT S

RECORDS ON ALL CHANGES ARE REQUIRED TO BE KEPT AND MAINTAINED ON-SITE FOR TWO (2) YEARS.

THE PERMIT DETERMINATION FORM WITH THE INSTRUCTIONS CAN BE FOUND ON DAQ'S PERMITTING SECTION WEB SITE:

[www.dep.wv.gov/daq](http://www.dep.wv.gov/daq)



**Attachment A**  
WVA Manufacturing, LLC  
Alloy Site  
  
USGS 7.5 Minute Series  
Topographic Map  
  
Montgomery, W.Va. Quadrangle

## Attachment C Process Description

WVA Manufacturing LLC (WVM) seeks limited revisions to R14-0017 and R30-01900001 for operational changes that do not involve physical changes to the Alloy facility.

First, WVM seeks revisions to the language in Sections 3.1.16 and 5.1.3 regarding burning down prior to electrode change. This language is already allowed for manganese producers (40 CFR § 63.1653). The changes are indicated with highlighting and redlining for the proposed revisions .

3.1.16. The provisions of Sections 3.1.19, 3.1.10, and 3.1.14 [45CSR§§7-3.1, 3.2, and 5.1] shall not apply to particulate matter emitted from the operation of a ferroalloy electric submerged arc furnace in existence prior to June 1, 1993 during blowing taphole events, poling, ~~and~~ oxygen lancing, and burning down prior to electrode change operations. Poling emissions shall not exceed five (5) minutes in duration during any poling operation.  
**[45CSR§7-5.3]**

5.1.3 Visible emissions from all operations directly associated with furnace number 15 (including furnace charging, refining, tapping, and ladle additions,) shall not equal or exceed 20% opacity [Section 5.1.18.a] (45CSR§7-4.7.a). In accordance with 45CSR7 and 45CSR7A, opacity observations at the baghouse discharge points, the roof monitor above furnace number 15, and from all external ductwork handling gases from furnace number 15 shall not be as dark as or darker in shade than 20% opacity. Opacity observations shall not be averaged in determining compliance with this visible emission limitation. This visible emission standard shall not be applicable during blowing taphole events, poling, ~~and~~ oxygen lancing, and burning down prior to electrode change. Poling emissions shall not exceed five (5) minutes in duration during any poling operation.  
**[45CSR14, R14-0017, A.3, Furnace 15]**

In addition, WVM seeks revisions to the requirements of Paragraph 5.1.20 due to changes in the manufacturing process at the Alloy facility. WVM can no longer meet the requirement for 5-9 cfm due to these revisions. WVM changed from a floating slag practice to a sinking slag refining process. This results in the creation of a heavy, viscous slag that settles in the bottom of the ladle to control the elements which are removed by the refining gas. This heavy slag inhibits the normal flow of gas from the plug on the ladle bottom up through the molten metal bath in the ladle. As the plug matures in life (higher number of taps), the porous nature of the buildup on top of the plug mandates the gas flow be increased to allow the gas to be circulated through the bath to promote this refining activity. In addition, raw material quality has deteriorated over the past couple of years, resulting in more slag generation in the furnaces and the ladles. A higher flow is needed to compensate for the increased amount of sinking slag that accumulates around the bottom plug.

WVM also seeks an exception to 20 max cfm. If a ladle plug cannot maintain gas flow at 20 cfm to prevent the ladle from freezing over, the flow will be increased until the ladle can be replaced with a newly prepared ladle as early as possible. At that time, emissions will be monitored to assure compliance with opacity requirements.

WVM proposes the following work practice regarding the pouring process based on the revisions to the facility:

The casting process is to minimize the flow of gas (air and oxygen at a flow rate not to exceed 20 cfm) through the plug on the bottom of the ladle which is used to control refining. Low flow of gas is important to WVM to generate the control of the product to meet customers' quality specification, and to minimize fugitive particle matter emissions during this phase of the handling of the molten metal through the casting process from the ladle. After metal casting process is complete and the bottom bubbling plug is no longer immersed in the molten metal bath, WVM will go into purge cycle (not to exceed 40 cfm) to maintain flow through the plug and minimize blinding the plug. Continued control of the gas flow will be minimized with the intent of maintaining the ladle for usability on the next tap cycle on each furnace.

This work practice can meet the applicable opacity requirements. WVM performed two separate Method 9 Visible Emissions for all furnaces (with three on No. 3 Furnace), which demonstrate that this increased flow meets the opacity requirements. The results are summarized in the following table, and the reports are enclosed:

<b>Furnace No.</b>	<b>VE Test 1</b>	<b>VE Test 2</b>	<b>VE Test 3</b>
3	1 VE at 18 cfm with 35 taps in the ladle	1 VE at 20 cfm with 37 taps in the ladle	1 VE at 18 cfm with 38 taps in the ladle
6	1 VE at 18 cfm with 31 taps in the ladle	1 VE at 10 cfm with 7 taps in the ladle	NA
7	1 VE at 8 cfm with 3 taps in the ladle	1 VE at 12 cfm with 16 taps in the ladle	NA
14	1 VE at 18 cfm with 15 taps in the ladle	1 VE at 16 cfm with 16 taps in the ladle	NA
15	1 VE at 20 cfm with 50 taps in the ladle	1 VE at 20 cfm with 51 taps in the ladle	NA

**Attachment D - Legal Advertisement**  
**AIR QUALITY PERMIT NOTICE**  
**Notice of Application**

Notice is given that WVA Manufacturing, LLC, has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Class II Administrative Update for the Alloy Facility located at US Route 60, East, in Alloy, Fayette County, West Virginia. The latitude and longitude coordinates are: 38.1380° latitude, -81.2790° longitude.

The applicant estimates no increase in the potential to discharge Regulated Air Pollutants. The application seeks changes applicable to permit requirements that do not involve a physical change at the facility.

Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57<sup>th</sup> Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1227, during normal business hours.

Dated this the 12<sup>th</sup> day of December, 2017.

By: WVA Manufacturing, LLC  
Steven A. Pralley  
Plant Manager  
Post Office Box 248  
Alloy, WV 25002

## Attachment S

### Title V Permit Revision Information

<b>1. New Applicable Requirements Summary</b>	
Mark all applicable requirements associated with the changes involved with this permit revision:	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input type="checkbox"/> Section 111 NSPS (Subpart(s) _____)	<input type="checkbox"/> Section 112(d) MACT standards (Subpart(s) _____)
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64) <sup>(1)</sup>
<input type="checkbox"/> NO <sub>x</sub> Budget Trading Program Non-EGUs (45CSR1)	<input type="checkbox"/> NO <sub>x</sub> Budget Trading Program EGUs (45CSR26)
<p><sup>(1)</sup> If this box is checked, please include <b>Compliance Assurance Monitoring (CAM) Form(s)</b> for each Pollutants Specific Emission Unit (PSEU) (See Attachment H to Title V Application). If this box is not checked, please explain why <b>Compliance Assurance Monitoring</b> is not applicable:</p> <p style="padding-left: 40px;">This revision does not affect previous CAM determinations, as WVM seeks operating flexibility within the existing permit with no physical changes to the facility.</p>	

<b>2. Non Applicability Determinations</b>
<p>List all requirements, which the source has determined not applicable to this permit revision and for which a permit shield is requested. The listing shall also include the rule citation and a rationale for the determination.</p> <p>This revision does not affect previous non-applicability determinations, as WVM seeks operating flexibility within the existing permit with no physical changes to the facility.</p>

<input type="checkbox"/> <b>Permit Shield Requested</b> (not applicable to Minor Modifications) <b>Not Applicable</b>
---

*All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.*

**3. Suggested Title V Draft Permit Language**

Are there any changes involved with this Title V Permit revision outside of the scope of the NSR Permit revision?  Yes  No If Yes, describe the changes below.

Also, please provide **Suggested Title V Draft Permit language** for the proposed Title V Permit revision (including all applicable requirements associated with the permit revision and any associated monitoring /recordkeeping/ reporting requirements), OR attach a marked up pages of current Title V Permit. Please include appropriate citations (Permit or Consent Order number, condition number and/or rule citation (e.g. 45CSR§7-4.1)) for those requirements being added / revised.

Proposed revisions to the current Title V Permit are indicated in Attachment C to the Permit Determination Form.

**4. Active NSR Permits/Permit Determinations/Consent Orders Associated With This Permit Revision**

Permit or Consent Order Number	Date of Issuance	Permit/Consent Order Condition Number
R14-0017C	06/14/2012	See Attachment C to PDF
R13-2052	5/21/2003	See Attachment C to PDF
	/ /	

**5. Inactive NSR Permits/Obsolete Permit or Consent Orders Conditions Associated With This Revision**

Permit or Consent Order Number	Date of Issuance	Permit/Consent Order Condition Number
	MM/DD/YYYY	
	/ /	
	/ /	

**6. Change in Potential Emissions**

Pollutant	Change in Potential Emissions (+ or -), TPY
N/A	

*All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.*

**7. Certification For Use Of Minor Modification Procedures (Required Only for Minor Modification Requests)**

**Note:** This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete. The criteria for allowing the use of Minor Modification Procedures are as follows:

- i. Proposed changes do not violate any applicable requirement;
- ii. Proposed changes do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
- iii. Proposed changes do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient air quality impacts, or a visibility increment analysis;
- iv. Proposed changes do not seek to establish or change a permit term or condition for which there is no underlying applicable requirement and which permit or condition has been used to avoid an applicable requirement to which the source would otherwise be subject (synthetic minor). Such terms and conditions include, but are not limited to a federally enforceable emissions cap used to avoid classification as a modification under any provision of Title I or any alternative emissions limit approved pursuant to regulations promulgated under § 112(j)(5) of the Clean Air Act;
- v. Proposed changes do not involve preconstruction review under Title I of the Clean Air Act or 45CSR14 and 45CSR19;
- vi. Proposed changes are not required under any rule of the Director to be processed as a significant modification;

Notwithstanding subparagraph 45CSR§30-6.5.a.1.A. (items i through vi above), minor permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in rules of the Director which are approved by the U.S. EPA as a part of the State Implementation Plan under the Clean Air Act, or which may be otherwise provided for in the Title V operating permit issued under 45CSR30.

**Pursuant to 45CSR§30-6.5.a.2.C., the proposed modification contained herein meets the criteria for use of Minor permit modification procedures as set forth in Section 45CSR§30-6.5.a.1.A. The use of Minor permit modification procedures are hereby requested for processing of this application.**

(Signed):  Date: 12 / 4 / 17  
 (Please use blue ink) (Please use blue ink)  
 Named (typed): Steven A. Pralley Title: Plant Manager

**Note: Please check if the following included (if applicable):**

- Compliance Assurance Monitoring Form(s)
- Suggested Title V Draft Permit Language

*All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.*