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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.: R13-2379E
Plant ID No.: 009-00004
Applicant: Jupiter Aluminum Corporation (Jupiter)
Facility Name: Jupiter Coil Coating
Location: Wellsburg/Beech Bottom, Brooke County
NAICS Code: 332812 - Metal Coating, Engraving (except Jewelry and Silverware),
and Allied Services to Manufacturers
Application Type: Modification
Received Date: Original Application: August 29, 2016;
Application Re-submittal: June 21, 2017
Engineer Assigned: John Legg
Fee Amount: \$1,000.00
Date Received: August 30, 2016
Complete Date: September 7, 2016 (Newspaper affidavit was emailed to DAQ.)
June 21, 2017 (Application re-submittal)
Due Date: September 21, 2017
Applicant Ad Date: August 29, 2016
Newspaper: ***Intelligencer***
UTM's: Easting: 529.156 Northing: 4,451.52 Zone: 17
Description: This modification:

- Documents the installation of one (1) 8.65 MM Btu/hr, natural gas-fired boiler installed in 2013 and formally allows the removal of four (4) other boilers from the Title V permit.
- Lowers the minimum VOC destruction efficiency of the Coil Coating Line #1's (CCL#1's) Regenerative Thermal Oxidizer (RTO) to 96% from 98%.

SUMMARY

Permit R13-2379E was put in the newer Title V-like format now used for Rule 13 permits.

Section 4 of R13-2379E documents the installation of one (1) 8.65 MM Btu/hr, natural gas-fired boiler installed in 2013.

The permit limitations/requirements contained in R13-2379D for Coil Coating Line #1 (CCL#1) are now found in Section 5 of R13-2379E.

Section 5 of R2379E documents the lowering of the minimum VOC destruction efficiency of the CCL#1's RTO to 96% from 98%.

The 96% destruction efficiency was determined from a performance test of the RTO conducted on September 16, 2016. The HAP emission requirements given in 40 CFR 63, Subpart SSSS are easily met at a RTO destruction efficiency of 96%. The VOC emission requirements given in 40 CFR 60, Subpart TT are met at a RTO destruction efficiency of 90%.

Although the RTO destruction efficiency was lowered in section 5.1.9 of permit R13-2379E (to 96% from 98%), the hourly and annually VOC and speciated HAP emission limits given in section 5.1.8. [and originally calculated for the previous owner (Wheeling Corrugating Company) at a RTO destruction efficiency of 98%] were not modified because:

The writer concluded that the VOC and HAP limits were probably too large already based on summing the annual speciated HAP emissions (15.65 ton/yr) for the section which showed the annual HAP sum exceeding the worst case annual HAP emission limit (12.17 ton/yr) calculated (by the writer) for the RTO at a destruction efficiency of 96%. Under normal conditions, VOC and HAP emissions should be expected to increase as the RTO's destruction efficiency is decreased.

TIMELINE

A summary timeline is provided below:

March 15, 2005 - Wheeling Corrugating Company is issued R13-2379C.

Application R13-2379C was for the installation of coating line #1 replacement ovens, improvements to the coating room enclosures and the replacement of existing incinerators with a regenerative thermal oxidizer (EPCON). Note that many of the changes result from the need to comply with 40 CFR 63 Subpart SSSS.

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The application's Emission Unit Data Sheets for the RTO (C3) states that the RTO has a minimum guaranteed combustion (destruction) efficiency of 98+%. The RTO is manufactured by EPCON.

The application's supporting emission calculation (in Attachment N) states that the "RTO system control efficiency: 98% (manufacturer)."

The engineering evaluation states (on page 3): "The NOx emission factor for the RTO and the control efficiency for the RTO (98%) are from manufacturer specifications."

Year 2013 - Jupiter purchases the facility.

August 25, 2015 - Jupiter Aluminum Corporation (Jupiter) is issued R13-2379D.

This Class I Administrative Update was used to split R13-2379C into two permits. R13-2379D included only the operating sources that were associated with Coating Line #1. R13-3265, the spinoff permit, included the remainder of the sources associated with Coating Line #2.

According to the permit application (R13-2379D), Jupiter is to transfer the spinoff permit (R13-3265) associated with Coating Line #2 to Business Development Corporation of the Northern Panhandle.

August 30, 2016 - Jupiter submits permit application R13-2379E.

This modification application documents the installation of one (1) 8.65 MM Btu/hr, natural gas-fired boiler installed in 2013. The boiler replaced four (4) 25.2 MM Btu/hr boilers, the installation of which is documented solely in Title V Permit No. R30-00900004-2012 (1 of 2) (Coating Line #1). This modification permit is needed to formally removal the four (4) boilers from the Title V permit.

September 7, 2016 - On this date, DAQ received Jupiter's affidavit of publication for their legal advertisement and application R13-2379E was deemed completed as of this date.

September 16, 2016 - Performance tests were conducted on the RTO on this date for inlet and outlet Volatile Organic Matter (VOM) Mass Flow Rates, Control Device Destruction or Removal Efficiency (DRE), Total Permanent Enclosure Verification (TE).

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- November 21, 2016 - Jupiter's consultant calls about removing the RTO's 98% removal efficiency from the permit. The request was not within the scope of the original application. The consultant's call is documented in the writer's weekly report for the week of 11/21 - 25/16.
- November 21, 2016 - The DAQ emails Jupiter's consultant wanting Jupiter to propose in writing what they want changed. If Jupiter's response is clear, precise, and logical, the DAQ could possibly made the change under R13-2379E.
- October 13, 2016 - Jupiter sends the USEPA and the WVDEP an Emissions Test Report issued for performance tests conducted on Jupiter's RTO. Test results indicate an average destruction efficiency of 96.0%.
- Jupiter's Rule 13 permit R13-2379D (carried over from R13-2379C) and Title V permit both require the RTO to have a minimum 98% destruction efficiency in the control of VOC emissions.
- February 28, 2017 - The DAQ goes to public notice on application R13-2379E. No information was received regarding the 11/21/16 consultant's request to remove the RTO's 98% removal efficiency from the permit.
- March 28, 2017- Jupiter comments on the draft permit. One of Jupiter's comments is to lower the destruction efficiency of the RTO to 96% to 98%.
- April 3, 2017 - DAQ again requests that Jupiter, in a stand-alone letter, formalize what changes it wants made to the RTO and to provide supporting information as to why these changes need to be make. This request is similar to the one made by DAQ in a previous email sent to Jupiter on November 21, 2016.
- April 13, 2017 - Jupiter sends an additional information packet formally requesting that the destruction efficiency of the RTO be reduced to 96% from 98%.
- The manufacture (EPCON) after the RTO tested less than the 98% destruction efficiency was not willing to provide Jupiter will a 98% destruction efficiency guarantee.**
- April 28, 2017 - DAQ offers Jupiter the option to follow one of two (2) different courses of action:

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Course 1 - Allow the DAQ to issue draft permit R13-2379E with the RTO minimum destruction efficiency remaining at 98%, and submit another application to reduce the RTO's minimum destruction efficiency to 96%.

Course 2 - Jupiter to submit additional supplemental information to permit application R13-2379D that would allow the DAQ to document in the draft permit the specific method by which Jupiter is currently complying with 40 CFR 63, Subpart SSSS at a reduced minimum RTO efficiency of 96%. The date that the supplemental information is received at the DAQ was to reset the permitting clock such that the DAQ would have an additional 90 days in which to update the draft permit and re-run its legal advertisement.

May 10, 2017 - Jupiter agrees to follow the option outlined in Course 2 (above) and agrees to submit the additional supplemental information within 30 working days of the receipt of this notice.

June 21, 2017- Jupiter submits the additional supplemental information to allow the DAQ to lower the minimum VOC destruction efficiency of the RTO to 96% from 98%.

July 26, 2017 - On this date, a complete email was sent by the writer to Jupiter deeming the additional supplemental information submitted by Jupiter on 6/21/17 to be complete. The permitting clock was re-started as of 6/21/17 with 90 days in which to issue Permit R13-2379E.

APPLICATION DISCUSSION

Boiler Replacements/Changes

R13-2379E was submitted by Jupiter on August 30, 2016 to incorporate boiler replacements/changes previously discussed in the evaluation to permit application R13-2379D. This evaluation is given in Attachment 1 to this evaluation.

Table 1: Emission Units Table.

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Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Type and Date of Change	Control Device
003-05	Boiler #5	Natural Gas-Fired Boiler	2013	8.65 MM Btu/hr	New - 2013	None

Table 2: Boiler #5 - Emission Unit Data Sheet (EUDS).

Item		Response
Equipment Information		
Manufacturer:		Cleaver Brooks
Use:		Provide steam to heat various coating line cleaning tanks
Model No.:		CB 200-150
Serial No.:		92340
Rated Boiler Horsepower:		Approximately 250 hp
Date Constructed		1987 (Installed at Jupiter Facility - August 2013)
Maximum Design Heat Input:		8.65 x 10 ⁶ Btu/hr
Steam Produced (at maximum design output)		8,625 lb/hr @
Operating Schedule:		24 - Hr/Day; 7 - Day/Wk; 52 Wk/Yr
Type of firing equipment to be used:		Natural Gas Burners
Proposed type of burners and orientation:		Front Wall
Type of Draft:		Forced
Stack or Vent Data		
Inside Diameter or Dimensions:		1.166 ft.
Gas Exit Temperature:		Approximately 373 °F
Height:		33 ft.
Gas Flow Rate:		Approximately 2,645 ft ³ /min
Estimated percent of moisture		Approximately 10 %
Stack Serves:		Only this equipment.
Fuel Requirements		
Quantity	Hourly	Natural Gas - 8,4831 ft ³ /hr
	Annual	Natural Gas - 73.85 X 10 ⁶ ft ³ /hr

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Table 2: Boiler #5 - Emission Unit Data Sheet (EUDS).

Item	Response
BTU Content:	1,026 Btu/ft ³ - Natural Gas
Gas Burner Mode of Control:	Automatic full modulation
Gas Burner Manufacturer:	Cleaver Brooks
Calculated Theoretical Air Requirements for Combustion of fuel as Described Above Actual Cubic Feet (ACF) per unit of fuel	Approximately 92,058 scf over 8,480 scf @ 70 degree F, Ambient % moisture
% Excess Air Actually Required for Combustion of Fuel Described	Approximately 15%
Pollutants in lb/hr	0.708 CO; 0.05 Hydrocarbons; 0.843 Nox; 0.06 PM10; 0.005 SO2; 0.05 VOC; 0.016 HAPs
Controls	NA - No Control Device
Monitoring Plan	Facility will monitor boiler operating schedule and quantity of natural gas fired.
Record-keeping	Facility will keep records of operating schedule and the quantity of natural gas burned in the boiler. These records will include the date and time of startup and shutdown, and the quantity of fuel consumed on a monthly basis.

Application Re-submittal (Lowering RTO Destruction Efficiency)

On September 16, 2016, Jupiter tested the Regenerative Thermal Oxidizer (RTO) and discovered that the control device's VOC destruction efficiency was only 96%. The RTO was permitted under R13-2379C (approved March 15, 2005) at a minimum destruction efficiency of 98%.

The following information comes from the cover letter to Jupiter's June 21, 2017 application re-submittal:

- The oxidizer (RTO) is used to comply with both 40 CFR 63, Subpart SSSS for Hazardous Air Pollutants and 40 CFR 60, Subpart TT for VOCs.
- Since the destruction efficiency requirement for Subpart TT is only 90%, the focus of this discuss is on Jupiter's compliance with the more stringent requirements of Subpart SSSS.

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- 40 CFR 63, Subpart SSSS limits organic HAP emissions to the levels specified as follows. These standards are stated in 40 CFR §63.5120 (a) and below:
 - (1) No more than 2 percent of the organic HAP applied for each month during each 12-month compliance period (98% reduction), or
 - (2) No more than 0.046 kilogram (kg) of organic HAP per liter of solids applied during each 12-month compliance period, or
 - (3) If you use an oxidizer to control organic HAP emissions, operate the oxidizer such that an outlet organic HAP concentration of no greater than 20 parts per million by volume (ppmv) on a dry basis is achieved and the efficiency of the capture system is 100 percent.
- **At this time (now), Jupiter complies using the emission limit stated in Option 2 above by limiting organic HAP to no more than 0.046 kilogram (kg) of organic HAP per liter of solids applied during each 12-month compliance period.**
- The above emission standards are included in section 5.1.10 of the Title V Operating Permit [R30-00900004-2012 (1 of 2)], and section 5.1.6 of draft permit R13-2379E.

Jupiter commented that draft Permit R13-2379E references all three emission standards, but only lists the third emission standard [§63.5120 (a) (3)].

Writer's comment: In previous versions of the permit (starting with R13-2379C), the previous permittee: Wheeling Corrugating Company was thought by the DAQ to have used the third emission standard to comply with 40 CFR 63, Subpart SSSS. For that reason, the other two emission standards [§63.5120 (a) (1) and (2)] were not listed in the permit.

- Jupiter requests that the DAQ include the description for all three emission standards in R13-2379E, section 5.1.6.

Writer's comment: The draft permit (R13-2379E) was updated to include all three of the emission standards.

- There are four options to demonstrate compliance with the emission standards. The compliance options are stated in 40 CFR §63.5170, Table 1 and below:
 - (1) Use of "as purchased" compliant coatings
 - (2) Use of "as applied" compliant coatings

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- (3) Use of a capture system and control device
- (4) Use of a combustion of compliant coating and control devices and maintaining an acceptable equivalent emission rate
- **At this time (now), Jupiter selected Option 4 above (“by using a combination of compliant coatings and control devices and maintaining an acceptable equivalent emission rate” to comply with emission standard §63.5120 (a) (2).**

These compliance options are included in section 5.2.5. of the Title V Operating Permit [R30-00900004-2012 (1 of 2)].

Jupiter commented that draft permit R13-2379E includes only the third compliance option [40 CFR §63.5170 (c)].

Writer’s comment: In previous versions of the permit (starting with R13-2379C), the previous permittee: Wheeling Corrugating Company, was believed by the DAQ to be complying with 40 CFR 63, Subpart SSSS by using Option 3 [§63.5170 (c)]. For that reason, the other three options [§63.5170 (a), (b) and (d)] were not listed in the permit.

- Jupiter requests that the DAQ include the description for all four compliance options in R13-2379E, section 5.1.6.

Writer’s comment: The draft permit (R13-2379E) was updated to include all four different compliance options [§63.5170 (a) through (d)].

- Jupiter provided emission calculations (worst case: 15 gal/hr primer coating and 45 gal/hr finished coating which includes added thinner) demonstrating compliance with 40 CFR 63, Subpart SSSS in Appendix A (to the additional supplemental information packet).
- Jupiter also provided actual emission calculations from April 2016 to March 2017 in Attachment A.
- **In the future, the emission standard, and the compliance option selected by Jupiter to comply with 40 CFR 62, Subpart SSSS could change**, i.e., Jupiter has the right afforded in 40 CFR 63, Subpart SSSS to select from the emission standards stated in 40 CFR §63.5120(a)(1) through (3) as well as any of the appropriate options to demonstrate compliance stated in 40 CFR §63.5170 (a) through (d). Jupiter requests that DAQ document in writing all options within the Title V and Rule 13 permits.

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SITE INSPECTION

The writer did not inspect the site for this modification permit.

The facility was last inspected on August 22, 2016 by DAQ Enforcement Inspector Al Carducci who is stationed out of the Northern Panhandle Office in Wheeling, WV. His inspection found the facility out of compliance due to the VOC destruction efficiency of the RTO being below the required 98%. The facility was issued an inspection code of 10.

Directions: Facility is located on the west side of WV State Route 2 just south of Beech Bottom.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Boiler Replacements/Changes

See Attachment 1 to this evaluation for the emission estimation related to the installation of the one (1) 8.65 MM Btu/hr, natural gas-fired boiler installed in 2013. This information serviced as the engineering evaluation to permit application R13-2379D.

Application Re-submittal (Lowering RTO Destruction Efficiency)

The following discussion is related to the lowering of the RTO's destruction efficiency to 96% from 98%:

Jupiter demonstrated compliance with 40 CFR 63, Subpart SSSS by calculating actual and worst case HAP emission concentrations (kg/l of solids) after the RTO at a destruction efficiency of 96%. This information is given in Appendix A to the application re-submittal submitted by Jupiter to the DAQ on June 21, 2017. The writer review the information and found it to be logical and mathematically correct.

Worst Case HAP Concentration

Jupiter provided MSDS's for the worst case primer and topcoat:

Product	Product Code		Hourly Usage Rate (gal/hr)
	Safety Data Sheet (SDS)	Jupiter	
Universal Primer	DC477	WA0-0003	15
Topcoat White	DC105W-2135	WW8-0003	38.25

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Product	Product Code		Hourly Usage Rate (gal/hr)
	Safety Data Sheet (SDS)	Jupiter	
Dilutant Solvent (100% Toluene)	--	--	6.75

Jupiter used a solvent usage rate of 6.75 gal/hr which is 15% of the maximum permitted paint usage rate of 45 gal/hr (Topcoat + Solvent). Maximum hours of operation were assumed to be 8,760.

The worst case HAP concentration after controls (RTO testing at 96% destruction efficiency) was calculated to equal 0.01344 kg of HAPs per liter of solids (0.1122 lb of HAPs per gallon of solids) which is well below the 0.046 kg per liter of solids (0.3839 lb of HAPs per gallon of solids) concentration selected by Jupiter to comply with 40 CFR 63, Subpart SSSS.

The worst case total HAP emission rate after controls (RTO, 96% destruction efficiency) was calculated (by the writer) to be 12.17 ton/yr which is a 6.08 ton/yr increase in the worst case HAP emission rate calculated (by the writer) at a RTO destruction efficiency of 98%. The writer's calculations are shown below:

Worst Case Total HAP Emission Rate

after controls (RTO at 96%

destruction efficiency) = 0.1122 lb HAPs/gallon solids X 216,987.39 gal/yr of solids
= 24,346 lb/yr X 1 ton/2,000 lb
= 12.173 ton/yr

Worst Case Total HAP Emission Rate

after controls (RTO at 98%

destruction efficiency) = 0.05609 lb HAPs/gallon solids X 216,987.39 gal/yr of solids
= 12,170.8 lb/yr X 1 ton/2,000 lb
= 6.09 ton/yr

Note: Jupiter did not change (or ask that the DAQ change) section 5.1.8. in Permit R13-2379E. This section established hourly and annual VOC and speciated HAP limits for the RTO calculated at a destruction efficiency of 98% when the facility was owned and operated by Wheeling Corrugating Company. These limits were not changed when Jupiter became the new owner.

Under normal circumstances, lowering the RTO destruction efficiency should increase the VOC and HAP limits in section 5.1.8. However, this will not be the case. The writer summed the speciated annual HAP limits in permit R13-2379D and found that total HAP emissions were 15.65 ton/yr. This number is bigger than the worst case HAP limit of 12.17 ton/yr calculated (by the writer) for the RTO at a destruction efficiency of 96%.

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The writer concluded that the VOC and HAP limits given in section 5.1.8. of R13-2379D were/are over-estimated and probably should be reduced instead of increased.

Given no further information, the writer has decided to lower the RTO destruction efficiency to 96% from 98% in section 5.1.9 of the permit, and to make no changes to the hourly and annual VOC and speciated HAP limits in section 5.1.8 of the permit.

Also, since the VOC and speciated HAP limits in section 5.1.8 will not changed, the advertised VOC and speciated HAP limits in the newspaper will not be increased to compensation for the decrease in RTO destruction efficiency.

REGULATORY APPLICABILITY

Section 4 of R13-2379E was written to permit the one (1), 8.65 MM Btu/hr, natural gas-fired boiler. Section 5 of R13-2379E contains the requirements for Coil Coating Line #1 and its RTO. The rules related to the permitting of natural gas-fired boiler and the lowering of the RTO's VOC destruction efficiency to 96% from 98% are discussed below:

45CSR2 - "To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers"

Boiler Replacements/Changes - Installation of one (1), 8.65 MM Btu/hr, natural gas-fired boiler.

Section 3 of this rule applies to the boiler.

According to Section 11.1: "Any fuel burning unit(s) having a heat input under ten (10) million B.T.U.'s per hour will be exempt from sections 4, 5, 6, 8 and 9." The boiler has a heat input of 8.65MM Btu/hr. Exempted sections:

- Section 4 is entitled: "Weight Emission Standards."
- Section 5 is entitled: "Control of Fugitive Particulate Matter."
- Section 6 is entitled: "Registration."
- Section 8 is entitled: "Testing, Monitoring, Record-keeping and Reporting."
- Section 9 is entitled: "Start-ups, Shutdowns and Malfunctions."

Applicable/non-exempted sections:

- Section 3 is entitled, "Visible Emissions of Smoke And/Or Particulate Matter Prohibited And Standards of Measurement.;"

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- Section 7 is entitled, "Permits;"
- Section 10 is entitled, "Variances;"
- Section 11 is entitled, "Exemptions;" and
- Section 12 is entitled, "Inconsistency Between Rules."

No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. [45CSR§2-3.1.]

Note that visible emission checks of the boilers are not required because the boilers are exempted from Section 8 of Rule 2.

45CR10 - "To Prevent and Control Air Pollution From the Emission of Sulfur Oxides."

Boiler Replacements/Changes - Installation of one (1), 8.65 MM Btu/hr, natural gas-fired boiler.

According to Section 10.1: "Any fuel burning units having a design heat input under ten (10) million BTU's per hour will be exempt from section 3 and sections 6 through 8." Exempted sections:

- Section 3 is entitled: "Sulfur Dioxide Weight Emission Standards for Fuel Burning Units."
- Section 6 is entitled: "Registration."
- Section 7 is entitled: "Permits."
- Section 8 is entitled: "Testing, Monitoring, Record-keeping and Reporting."

Applicable/non-exempted sections have no substantive requirements or no applicable requirements:

- Section 4 is entitled, "Standards for Manufacturing Process Source Operations;"
- Section 5 is entitled, "Combustion of Refinery or Process Gas Streams;"
- Section 9 is entitled, "Variance;"
- Section 10 is entitled "Exemptions and Recommendations;"
- Section 11 is entitled, "Circumvention;" and
- Section 12 is entitled, "Inconsistency Between Rules."

45CSR13 - "Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation."

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This modification has two parts:

- The installation of a small (8.65 MM Btu/hr) natural gas-fired boiler installed in 2013.

Jupiter submitted a complete application (September 7, 2016, the day the newspaper affidavit of publication was emailed to the DAQ) for a modification permit; ran a legal advertisement (in the ***Intelligencer***, August 30, 2016); and paid a \$1,000 application fee (August 30, 2016).

- The lowering of the RTO's destruction efficiency to 96% from 98%.

The permitting clock was re-started as of 6/21/17 with the permit re-submittal from Jupiter concerning the lowering of the RTO's destruction efficiency. The permit is to be issued 90 days from receiving the re-submittal.

See the "**TIMELINE**" section of this evaluation for additional information.

45CSR16 "Standards of Performance for New Stationary Sources"

Adopts by reference the standards of performance for new stationary sources promulgated by the United States Environmental Protection Agency pursuant to section 111(b) of the federal Clean Air Act, as amended (CAA). This rule codifies general procedures and criteria to implement the standards of performance for new stationary sources set forth in 40 CFR Part 60. The rule also adopts associated reference methods, performance specifications and other test methods which are appended to these standards.

- 40 CFR 60, Subpart Dc was reviewed for applicability related to the installation of a small (8.65 MM Btu/hr) natural gas-fired boiler installed in 2013. See below.
- 40 CFR 60, Subpart TT was reviewed for applicability related to the lowering of the RTO's destruction efficiency to 96% from 98%. See below.

40CSR30 - "Requirements for Operating Permits."

Jupiter is a Title V source. Coating Line #1 is covered under: Title V Permit No. R30-00900004-2012 (1 of 2)

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45CSR34 - “Emission Standards for Hazardous Air Pollutants for Source Categories Pursuant to 40 CFR, Part 63”

This rule establishes and adopts a program of national emission standards for hazardous air pollutants (NESHAPS) and other regulatory requirements promulgated by the United States Environmental Protection Agency pursuant to 40 CFR Parts 61, 63 and section 112 of the federal Clean Air Act, as amended (CAA). This rule codifies general procedures and criteria to implement emission standards for stationary sources that emit (or have the potential to emit) one or more of the eight substances listed as hazardous air pollutants in 40 CFR §61.01(a), or one or more of the substances listed as hazardous air pollutants in section 112(b) of the CAA. The Secretary hereby adopts these standards by reference. The Secretary also adopts associated reference methods, performance specifications and other test methods which are appended to these standards.

40 CFR 63, Subpart SSSS was reviewed for applicability related to the lowering of the RTO’s destruction efficiency to 96% from 98%. See below.

40 CFR 63, Subpart JJJJ was reviewed for applicability related to the installation of the small (8.65 MM Btu/hr) natural gas-fired boiler installed in 2013. See below.

**40 CFR 60
Subpart Dc - “Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.”**

This subpart does not apply because the maximum design heat input for Jupiter’s boiler is less than 10 MM Btu/hr.

**40 CFR 60
Subpart TT - “Standards of Performance for Metal Coil Surface Coating”**

The RTO is used to comply with both 40 CFR 63, Subpart SSSS for HAPs and 40 CFR 60, Subpart TT for VOCs.

Since the destruction efficiency requirement for Subpart TT is only 90%, the lowering of the RTO’s destruction efficiency to 96% will not affect Jupiter’s ability to comply with this subpart.

**40 CFR 63
Subpart SSSS**

**“National Emission Standards for Hazardous Air Pollutants:
Surface Coating of Metal Coil”**

The effect of lowering the RTO’s destruction efficiency to 96% from 98% is discussed at great length in this evaluation under the section entitled, “**PROCESS DESCRIPTION**,” sub-section entitled, “Application Re-submittal (Lowering RTO Destruction Efficiency).” See above section for additional information.

**40 CFR 63
Subpart JJJJJ**

**“National Emission Standards for Hazardous Air Pollutants
for Industrial, Commercial, and Institutional Boilers Area
Sources”**

This subpart does not apply because Jupiter’s boiler meets the definition of a gas-fired boiler given in §63.11237:

Gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

Non-criteria regulated pollutants are generated from the combustion of natural gas and from the combustion of VOCs in the RTO. Lowering the RTO’s efficiency does not change the non-criteria regulated pollutants that are generated. Non-criteria regulated pollutants have been reviewed in past versions of this permit (R13-2379 through R13-2379D).

AIR QUALITY IMPACT ANALYSIS

No modeling studies were performed.

MONITORING OF OPERATIONS

The following monitoring requirement related to the installation of the natural gas-fired boiler was added in Section 4 of permit R13-2379E:

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- 4.2.1. For the purpose of demonstrating compliance with the maximum natural gas consumption limits given in Condition 4.1.2. of this permit, the permittee shall record on a monthly bases the amount of natural gas consumed by Boiler 5 (003-05) and the rolling 12 month total amount of natural gas consumed. Such records shall be maintained in accordance with Condition 3.4.1. of this permit.

There are no changes to the monitoring requirements in R13-2379E because of the lowering of the RTO's destruction efficiency.

CHANGES TO PERMIT R13-2379E

A compare file is given in Attachment 2 to this evaluation. It shows the changes made to draft permit R13-2379E resulting from the application re-submittal to lower the RTO's destruction efficiency to 96% from 98%.

RECOMMENDATION TO DIRECTOR

The information provided in permit application R13-2379E (August 30, 2016) and the application re-submittal (June 21, 2017) indicates that compliance with all applicable regulations will be achieved. Therefore, it is the writer's recommendation that this modification permit be granted to Jupiter for their coil coating facility located near Wellsburg/Beech Bottom, Brooke County, WV.

John Legg
Permit Writer

August 15, 2017

R13-2379E Fact Sheet
Jupiter Aluminum Corporation
Jupiter Coil Coating, Wellsburg, WV

Attachment 1

Boiler Replacements/Changes

Detailed in the Engineer Evaluation to R13-2379D

Jupiter Aluminum Corporation

Jupiter Coil Coating
8963 River Road
Wellsburg, WV 26030

R13-2379E Fact Sheet
Jupiter Aluminum Corporation
Jupiter Coil Coating, Wellsburg, WV

To: File
From: John Legg
Date: August 26, 2015

Subject: R13-2379D - Class I Administrative Update
Jupiter Aluminum Corporation (Jupiter)
Jupiter Coil Coating
Company ID No.: 009-00004

This Class I Administrative Update is for a coil coating facility operated in Beech Bottom, Brooke County, WV. It was received on August 8, 2015 and assigned to the writer on August 11, 2015. The purpose of the update was:

To split R13-2379C into two permits. R13-2379D was to include only the operating sources that are associated with Coil Coating Line #1. R13-3265 was to include the remainder of the sources associated with Coating Line #2. Both permits were to be issued to Jupiter.

According to the permit application (R13-2379D), Jupiter intends to transfer the permit (R13-3265) associated with Coating Line #2 to the Business Development Corporation of the Northern Panhandle.

Compare File

A compare file is attached to this evaluation (as Appendix A). It details the changes made to Permit R13-2379C to arrive at Permit R13-2379D. A few of the changes made to the resulting permit require some additional explanation which is provided below:

- The facility manufactures “metal” coils, not just “steel” coils. The permit language was changed:
 - in the permit’s title to “Metal” Coil Coating Facility instead of “Steel” Coil Coating Facility and,
 - in Section A, Number 12 to ‘applied to the “metal” ’ instead of ‘applied to the “steel.” ’
- There was a discrepancy between the Title V operating permit and the Rule 13 permit. The emission point ID used in the operating permit for the CCL #1 Regenerative Thermal Oxidizer is 11E. For the same emission point in the Rule 13 permit it was 3E. The emission point ID in the Rule 13 permit was changed to 11E from 3E

to be consistent with the Title V operating permit. The change occurs in Section A, Number 6 of the permit and Section B, Number 10 of the permit.

- The requirement (Section A, Number 7 in R13-2379C) to vent Primer Quench Tank (3S) and Finish Quench Tank (4S) to the RTO needs to be changed to omit these emission units.

The two (2) emission units emit only water and do not emit any regulated air pollutants [as do the coating application rooms (1S and 2S) which emit volatile organic compounds (VOC) and are vented to the RTO]. Exhausting water vapor to the RTO can negatively impact the integrity and efficiency of the RTO.

Boiler Replacements

A change in potential to emit for the facility (resulting from boiler replacements) is noted here because it is discussed in the application (R13-2379D) under Attachment G, Title V Operating Permit, item 2 and under Attachment N, Supporting calculations, pages 1 through 3.

The sole objective for this Class I Administrative Update (R13-2379D) was to split the permit (R13-2379C) into two separate permits. Jupiter, or whoever is in possession of the coil coating line 1 permit (R13-2379D), must submit another permit application to incorporate into the Rule 13 permit and the Title V permit, the boiler replacements/changes discussed in permit application (R13-2379D). For convenience, this discussion is summarized below:

Attachment G, Title V

Operating Permit,
Item 2

- Remove four 25.2 MM Btu/hr boilers from the current Title V permit. These boilers were replaced with one 8.65 MM Btu/hr boiler in 2013. Please add this boiler to the permit associated with Coating Line #1 (R13-2379D). The 8.65 MM Btu/hr boiler is an insignificant source as per Item 19 of the Insignificant Activities checklist. Insignificant activities that fall under Item 19 are provided in permit application R13-2379D, Attachment 2. The emissions of criteria pollutants (CO, Nox, SO₂, VOC, and PM) from this boiler and the Wastewater Treatment Plant are less than 1 pound per hour and less than 10,000 pounds per year for each pollutant.

Emission Unit ID	Emission Point ID	Emission Unit Description
Replaced Boilers		
003-01	Boiler #1	Cleaver Brooks natural gas boiler.
003-02	Boiler #2	Cleaver Brooks natural gas boiler.
003-03	Boiler #3	Cleaver Brooks natural gas boiler.
003-04	Boiler #4	Cleaver Brooks natural gas boiler.

The following emission decreases resulting from boiler replacements/changes note above was calculated in permit application R13-2379D in Attachment N:

Criteria Pollutant	Emissions Decreases from Sources that are Shut Down (TPY)	Emissions Increase from New Insignificant Source (TPY)	Total Decrease in Emissions (TPY)
Particulate Matter	3.29	0.28	3.01
Sulfur Dioxide	0.26	0.022	0.24
Oxides of Nitrogen	43.28	3.71	39.57
Carbon Monoxide	36.36	3.12	33.24
Volatile Organic Compounds	2.38	0.2	2.18
Total HAPs	0.82	0.07	0.75

Permit R13-3265

The changes made to Permit R13-2379C to go to Permit R13-3265 are discussed under the engineering evaluation for R13-3265.

Appendix A

Compare File

Comparing Changes Make to Permit R13-2379C to Arrive at Permit R13-2379D

WordPerfect Document Compare Summary

Original document: Q:\AIR_QUALITY\J_LEGG\Jupiter Aluminum Corporation\009-00004_PERM_13-2379C.wpd

Revised document: Q:\AIR_QUALITY\J_LEGG\Jupiter Aluminum Corporation\009-00004_PERM_13-2379D.wpd

Deletions are shown with the following attributes and color:

~~Strikeout~~, Blue RGB(0,0,255).

Deleted text is shown as full text.

Insertions are shown with the following attributes and color:

Double Underline, Redline, Red RGB(255,0,0).

The document was marked with 47 Deletions, 69 Insertions, 0 Moves.

R13-2379E Fact Sheet
Jupiter Aluminum Corporation
Jupiter Coil Coating, Wellsburg, WV



west virginia department of environmental protection

Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475 • FAX: (304) 926-0479

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

**PERMIT TO ~~MODIFY~~ ADMINISTRATIVELY UPDATE
A ~~STEEL~~ METAL COIL COATING FACILITY**

IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL LAW (W. Va. Code §§22-5-1 et seq.), AND REGULATIONS PROMULGATED THEREUNDER, THE FOLLOWING PERMITTEE IS AUTHORIZED TO CONSTRUCT, SUBJECT TO THE TERMS AND CONDITIONS OF THIS PERMIT, THE SOURCE DESCRIBED BELOW.

This permit will supersede and replace Permit R13-2379**~~b~~C.**

Name of Permittee ~~Witterling Corrugating Company~~ **Jupiter Aluminum Corporation**

Name of Facility ~~Beech Bottom Facility~~ **Jupiter Coil Coating**

Permit No.: R13-2379**~~b~~D**

Plant ID No.:009-00004

Effective Date of Permit ~~March 15, 2015~~ **August 25, 2015**

Permit Written By ~~Steven R. Pursley, PE~~ **John Legg**

Facility Mailing Address ~~P.O. Box 398~~ **963 River Road**
~~Beech Bottom~~ **Wellsburg**, WV 26030

County: Brooke

Nearest City ~~Beech Bottom~~ **Wellsburg**, WV

UTM Coordinates: Easting: 529.156 km Northing: 4451.53 km Zone: 17

Directions to Facility is located on the west side of WV St. Rt. 2 just south of Beech
Exact Location: Bottom.

R13-2379E Fact Sheet
Jupiter Aluminum Corporation
Jupiter Coil Coating, Wellsburg, WV

Promoting a healthy environment.

Name of Permittee ~~Wittebel Corrugating Company~~ Jupiter Aluminum Corporation

Type of Facility or Modification: ~~Application for the installation of coating line #1 replacement ovens, improvements to the coating room enclosures and the replacement of existing incinerators with a regenerative thermal oxidizer. Note that many of the changes result from the need to comply with 40 CFR 63 Subpart SSSS~~ Class I Administrative Update to split R13-2379C into two permits. R13-2379D includes only the operating sources that are associated with Coating Line #1. R13-3265 includes the remainder of the sources associated with Coating Line #2. Other changes were made and are described in the engineering evaluations to R13-2379D and R13-3265.

THE SOURCE IS SUBJECT TO 45CSR30. THE PERMITTED FACILITY'S TITLE V (45CSR30) PERMIT R30-00900004-2002, ISSUED ON 12/31/02, MUST BE REVISED BEFORE COMMENCING OPERATION OF THE ACTIVITY (ACTIVITIES) AUTHORIZED BY THIS PERMIT

R13-2379E Fact Sheet
Jupiter Aluminum Corporation
Jupiter Coil Coating, Wellsburg, WV

IN ACCORDANCE WITH THE PERMIT APPLICATION AND ITS AMENDMENTS, THIS PERMIT IS LIMITED AS FOLLOWS:

A. SPECIFIC REQUIREMENTS

COIL COATING LINE 2

- ~~1. A thermal oxidizer, identified in permit application R13-2379 as GO3, shall be installed, maintained, and operated so as to achieve a minimum 98.00% destruction efficiency in the control of Volatile Organic Compound (VOC) emissions from the operations noted below and operate and monitor said GO3 according to the following conditions:~~
 - ~~a. In accordance with the information filed in permit application R13-2379, its amendments, and any subsequent revisions thereto, the Coater Room identified as 008/3, the Curing oven identified as 008/4, and the Quench Tank identified as 008/5 shall be installed, maintained, and operated so as to utilize GO3 as a control of VOCs.~~
 - ~~b. The thermal oxidizer shall be in operation at all times when the equipment listed in 1.a are in operation and shall not be by-passed, disconnected, or otherwise rendered ineffective in the control of VOCs. The permittee shall record any and all times when a violation of 1.b occurs. The certified record shall contain, at a minimum, the amount of time the coating line was in operation without utilizing the thermal oxidizer and the cause for the shutdown.~~
 - ~~c. The thermal oxidizer shall burn only natural gas as its supplementary fuel source. Alternative fuels may be used only after receiving prior written approval from the Director.~~
 - ~~d. The thermal oxidizer shall maintain a combustion chamber temperature of no less than 1400 degrees Fahrenheit (760 degrees Celsius). The owner or operator shall install, calibrate, maintain, and continuously operate a monitoring device for the measurement of the thermal oxidizer combustion chamber temperature. The monitoring device is to be certified by the manufacturer to be accurate within $\pm 1\%$ in degrees Fahrenheit.~~
 - ~~e. With respect to section A.1.d, the minimum value specified is considered valid until such time as other values are established during an approved compliance demonstration that guarantee the required minimum destruction efficiency. Any change in required minimum, maximum, or range of values shall not become effective until approved by the Director of the Division of Air Quality.~~

- ~~2. Emissions from thermal oxidizer, identified in permit application R13-2379 as CO3, shall not exceed the following limits:~~

~~Pollutant lbs/hr tons/year Carbon Monoxide (CO) 1.93 7.65 Oxides of Nitrogen (NO_x) 3.05 12.10 Sulfur Dioxide (SO₂) 0.01 0.05 Particulate Matter (PM₁₀) 0.17 0.69 Volatile Organic Compounds (VOCs) 2.90 11.53 Hazardous Air Pollutants (HAPs) 1.10 4.13~~

~~Compliance with the annual emission limits shall be determined using a 12 month rolling total.~~

- ~~3. Emissions from the chemical dryer identified in permit application R13-2379 as 008-1 shall not exceed the following limits:~~

~~Pollutant lbs/hr tons/year Carbon Monoxide (CO) 0.50 1.70 Oxides of Nitrogen (NO_x) 0.60 2.38 Sulfur Dioxide (SO₂) 0.01 0.03 Particulate Matter (PM₁₀) 0.05 0.18 Volatile Organic Compounds (VOCs) 0.03 0.13~~

~~Compliance with the annual emission limits shall be determined using 12 month rolling totals.~~

- ~~4. The maximum amount of natural gas fuel combusted in the following sources shall not exceed 23,000 cubic foot per hour nor 197,064,000 cubic feet per year:~~

~~Identification Description 008-1 Chemical Dryer 008-3 Curing Oven CO3 Thermal Oxidizer
Compliance with the combustion limit shall be determined using a
12 month rolling total.~~

- ~~5. Within sixty (60) days after achieving the maximum production rate at which the facility will be operated and within one hundred eighty (180) days after startup, and at such times as may be required by the USEPA Administrator or the Director, the permittee shall conduct a performance test which will demonstrate the destruction efficiency of VOC's by the thermal oxidizer (CO3). The tests shall be conducted in accordance with **OTHER REQUIREMENTS B.7 and B.8: 1. thru 5. [Reserved]**~~

COIL COATING LINE 1

6. Emissions from the RTO (emission point ~~3E11E~~) shall not exceed the following:

	RTO (3E11E)	
	lb/hr	tpy
PM	1.6	7.01
CO	4.03	17.65
NO _x	5.16	22.6

	SO ₂	0.028	0.12
	VOC	11.02	48.27
Methyl	Isobutyl Ketone	1.04	1.46
	Isophorone	2.09	2.93
Ethyl	Benzene	1.38	1.94
Formaldehyde		0.26	0.37
	Hexane	0.002	0.008
	Cumene	0.26	0.37
	Napthalene	1.47	2.07
	Xylene	4.63	6.51

7. A regenerative thermal oxidizer, identified in permit application R13-2379C as 3C, shall be installed, maintained, and operated so as to achieve a minimum 98.00% destruction efficiency in the control of Volatile Organic Compound (VOC) emissions from the Primer Oven (7S), Finishing Oven (8S), Primer Coater (1S), ~~Primer Quench Tank (3S)~~, and Finish Coater (2S) ~~and Finish Quench Tank (4S)~~.

8. The RTO (3C) shall be in operation at all times when the equipment listed in A.7 are in operation and shall not be by-passed, disconnected, or otherwise rendered ineffective in the control of VOCs. The permittee shall record any and all times when a violation of this condition occurs. The certified record shall contain, at a minimum, the amount of time the coating line was in operation without utilizing the thermal oxidizer and the cause for the shutdown.

The thermal oxidizer shall burn only natural gas as its supplementary fuel source. Alternative fuels may be used only after receiving prior written approval from the Director.

9. The maximum amount of natural gas fuel combusted in the following sources shall not exceed 48,000 cubic foot per hour nor 420,480,000 cubic feet per year:

Identification	Description
7S	Primer Oven
8S	Finishing Oven
3C	RTO

FACILITY WIDE REQUIREMENTS

10. Use of any surface coating containing any constituent identified in Section 112(b) of the 1990 Clean Air Act Amendments as a HAP and not listed below shall be in accordance with the following:
 - a. The permittee shall notify the Director in writing of the surface coating to be used and the HAP(s) contained therein within thirty (30) days of the use of the surface coating. Additionally, an MSDS sheet for the surface coating shall be supplied at this time to the Director.
 - b. The use of the surface coating shall be incorporated into the record keeping requirements contained herein.

HAP	CAS Number	HAP	CAS Number
Cumene	98828	Xylene	1330207
Ethyl Benzene	100414	Isophorone	78591
Methyl Isobutyl Ketone	108101	Naphthalene	91203
Formaldehyde	50000		

11. The coater rooms shall be constructed in order to achieve 100 percent capture efficiency.
12. The permittee shall maintain records of the amount and type of coatings applied to the steelmetal and VOC and HAP emissions for the coating lines.

B. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable provisions of 45CSR6, 45CSR7, 45CSR13, 45CSR16, 45CSR30, 40 CFR 60 Subpart TT and 40 CFR 63 Subpart SSSS, provided that the permittee shall comply with any more stringent requirements as may be set forth under Specific Requirements, Section (A) of this permit. Legislative Rule 45CSR16 incorporates therein 40 CFR 60.
2. ~~The pertinent sections of 45CSR6 applicable to the regenerative thermal oxidizer, identified in permit application R13-2379 as CO3, include, but are not limited to, the following:~~

~~§45-6-4.1.~~

~~No person shall cause, suffer, allow or permit particulate matter to be~~

R13-2379D
Jupiter Aluminum Corporation
Jupiter Coil Coating

discharged from any incinerator into the open air in excess of the quantity determined by use of the following formula:

$$\text{Emissions (lb/hr)} = F \times \text{Incinerator Capacity (tons/hr)}$$

Where, the Factor, F, is as indicated in Table I below:

Table I: Factor, F, for Determining Maximum Allowable Particulate Emissions/Incinerator Capacity
F Factor
A. Less than 15,000 lbs/hr 5.43B.
15,000 lbs/hr or greater 2.72

§45-6-7.1

At such reasonable times as the Director may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 CFR Part 60, Appendix A, Method 5 or other equivalent EPA approved method approved by the Director, in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or the Director's authorized representative, may at the Director's option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

§45-6-7.2.

The Director, or the Director's duly authorized representative, may conduct such other tests as the Director may deem necessary to evaluate air pollution emissions other than those noted above. [Reserved]

3. The operation of this facility is subject to requirements of 45CSR7. Pertinent sections applying to this operation include, but are not limited to:

§45-7-3.1

No person shall cause, suffer, allow, or permit emissions of smoke and/or particulate matter into the open air from any process source operation greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.

§45-7-3.2

The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.

§45-7-3.7

No person shall cause, suffer, allow, or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to subsection 5.1 is required to have a full enclosure and be equipped with a particulate matter control device.

§45-7-4.1

No person shall cause, suffer, allow, or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.

§45-7-5.1

No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.

§45-7-5.2

The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.

§45-7-8.1

At such reasonable times as the Director may designate the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases when the Director has reason to believe that the stack emission limitations(s) is/are being violated. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment, and the required safety equipment such as scaffolding, railings,

and ladders to comply with generally accepted good safety practices.

§45-7-8.2

The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.

4. The pertinent sections of 45CSR13 applicable to this facility include, but are not limited to, the following:

§45-13-6.1

At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Secretary thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or such other tests the Secretary may specify shall be conducted to determine compliance.

§45-13-10.2

The Secretary may suspend or revoke a permit or general permit registration if, after ~~six~~ (6) months from the date of issuance, the holder of the permit cannot provide the Secretary, at the Secretary's request, with written proof of a good faith effort that construction, modification, or relocation, if applicable, has commenced. Such proof shall be provided not later than thirty (30) days after the Secretary's request. If construction or modification of a stationary source is discontinued for a period of eighteen (18) months or longer, the Secretary may suspend or revoke the permit or general permit registration.

§45-13-10.3

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=
The Secretary may suspend or revoke a permit or general permit registration if the plans and specifications upon which the approval was based or the conditions established in the permit are not adhered to. Upon notice of the Secretary's intent to suspend, modify or revoke a permit, the permit holder may request a conference with the Secretary in accordance with the provisions of W. Va. Code § 22-5-5 to show cause why the permit or general permit registration should not be suspended, modified or revoked.

5. The operations of the new affected facilities under this permit are subject to requirements of 40 CFR 60, Subpart TT. Pertinent sections applying to these operations include, but are not limited to:

§60.7(a)

Any owner or operator subject to the provisions of this part shall furnish written notification as follows :

§60.7(a)(1)

A notification of the date construction is commenced postmarked no later than 30 days after such date.

§60.7(a)(2)

A notification of the anticipated date of initial startup of an affected facility postmarked not more than 60 days not less than 30 days prior to such date.

§60.7(a)(3)

A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

§60.8(a)

Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the act, the owner or operator of such facility shall conduct performance test(s) and furnish a written report of the results of such performance test(s).

§60.11(b)

_____ Compliance with opacity standards in this part shall be determined
by _____ conducting _____ observations in accordance with
Reference Method 9 in appendix
A of 40 CFR 60. For purposes of
determining initial compliance,
the minimum total time of
observations shall be 3 hours (30
6-minute averages) for the
performance test or other set of
observations (meaning those
fugitive-type emission sources
subject only to an opacity
standard).

§60.11(d)

At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate, any affected facility including associated air pollution equipment in a manner consistent with good air pollution control practice for minimizing emissions.

§60.460(a)

The provisions of this subpart apply to the following affected facilities in a metal coil surface coating operation: each prime coat operation, each finish

coat operation, and each prime and finish coat operation combined when the finish coat is applied wet on wet over the prime coat and both coatings are cured simultaneously.

§60.460(b)

This subpart applies to any facility identified in paragraph (a) of this section that commences construction, modification, or reconstruction after January 5, 1981.

§60.462(a)

On and after the date on which §60.8 requires a performance test to be completed, each owner or operator subject to this subpart shall not cause to be discharged into the atmosphere more than:

§60.462(a)(1)

0.28 kilogram VOC per liter (kg VOC/l) of coating solids applied for each calendar month for each affected facility that does not use an emission control device(s); or

§60.462(a)(2)

0.14 kg VOC/l of coating solids applied for each calendar month for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or

§60.462(a)(3)

10 percent of the VOC's applied for each calendar month (90-percent emission reduction) for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or

§60.462(a)(4)

A value between 0.14 (or a 90-percent emission reduction) and 0.28 kg VOC/l of coating solids applied for each calendar month for each affected facility that intermittently uses an emission control device operated at the most recently demonstrated overall efficiency.

§60.463(b)

The owner or operator of an affected facility shall conduct an initial performance test as required under §60.8(a) and thereafter a performance test for each calendar month for each affected facility according to the procedures in this section.

§60.464(c)

If thermal incineration is used, each owner or operator subject to the provisions of this subpart shall install, calibrate, operate, and maintain a device that continuously records the combustion temperature of any effluent gases incinerated to achieve compliance with §60.462(a)(2), (3), or (4). This device shall have an accuracy of $\pm 2.5^{\circ}\text{C}$. or ± 0.75 percent of the temperature being measured expressed in degrees Celsius, which is greater. Each owner or operator shall also record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in any thermal incinerator used to control emissions from an affected facility remains more than 28°C (50°F) below the temperature at which compliance with §60.462(a)(2), (3), or (4) was demonstrated during the most recent measurement of incinerator efficiency required by §60.8. The records required by §60.7 shall identify each such occurrence and its duration. If catalytic incineration is used, the owner or operator shall install, calibrate, operate, and maintain a device to monitor and record continuously the gas temperature both upstream and downstream of the incinerator catalyst bed. This device shall have an accuracy of $\pm 2.5^{\circ}\text{C}$. or ± 0.75 percent of the temperature being measured expressed in degrees Celsius, whichever is greater. During coating operations, the owner or operator shall record all periods in excess of 3 hours where the average difference between the temperature upstream and downstream of the incinerator catalyst bed remains below 80 percent of the temperature difference at which compliance was demonstrated during the most recent measurement of incinerator efficiency or when the inlet temperature falls more than 28°C (50°F) below the temperature at which compliance with §60.462(a)(2), (3), or (4) was demonstrated during the most recent measurement of incinerator efficiency required by §60.8. The records required by §60.7 shall identify each such occurrence and its duration.

§60.465(b)

Where compliance with §60.462(a)(2), (3), or (4) is achieved through the use of an emission control device that destroys VOC's, each owner or operator subject to the provisions of this subpart shall include the following data in the initial compliance report required by §60.8:

§60.465(b)(1)

The overall VOC destruction rate used to attain compliance with §60.462(a)(2), (3), or (4) and the calculated emission limit used to attain compliance with §60.462(a)(4); and

§60.465(b)(2)

The combustion temperature of the thermal incinerator or the gas temperature, both upstream and downstream of the incinerator catalyst bed, used to attain compliance with §60.462(a)(2), (3), or (4).

§60.465(c)

Following the initial performance test, the owner or operator of an affected facility shall identify, record, and submit a written report to the Administrator every calendar quarter of each instance in which the volume-weighted average of the local mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under §60.462. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Administrator semiannually.

§60.465(d)

The owner or operator of each affected facility shall also submit reports at the frequency specified in §60.7(c) when the incinerator temperature drops as defined under §69.464(c). If no such periods occur, the owner or operator shall state this in the report.

§60.465(e)

Each owner or operator subject to the provisions of this subpart shall maintain at the source, for a period of at least 2 years, records of all data and calculations used to determine monthly VOC emissions from each affected facility and to determine the monthly emission limit, where applicable. Where compliance is achieved through the use of thermal incineration, each owner or operator shall maintain, at the source, daily records of the incinerator combustion temperature. If catalytic incineration is used, the owner or operator shall maintain at the source daily records of the gas temperature, both upstream and downstream of the incinerator catalyst bed.

6. All notifications and reports required pursuant to 40 CFR 60 under §60.7 shall be forwarded to:

Director

—and Associate Director, Air Protection
Division

WVDEP

US Environmental Protection
Agency Office of Air Enforcement and

Division of Air Quality

Region III Compliance Assistance

601 57th St.

1650 Arch Street (3AP20)

Charleston, WV 25304

25304-2345 U.S. Environmental

Protection Agency

Region III

1650 Arch Street

Philadelphia, PA 19103-2029

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Jupiter Coil Coating

7. The facility is subject to requirements of 40 CFR 63, Subpart SSSS. Pertinent sections applying to these operations include, but are not limited to:

§63.5120(a)

Each coil coating affected source must limit organic HAP emissions to the level specified in paragraph (a)(1), (2), or (3) of this section:

§63.5120(a)(3)

If you use an oxidizer to control organic HAP emissions, operate the oxidizer such that an outlet organic HAP concentration of no greater than 20 parts per million by volume on a dry basis is achieved and the efficiency of the capture system is 100 percent.

§63.5121(a)

Except as provided in paragraph (b) of this section, for any coil coating line for which you use an add-on control device, unless you use a solvent recovery system and conduct a liquid-liquid material balance according to §63.5170(e)(1), you must meet the applicable operating limits specified in Table 1 to this subpart. You must establish the operating limits during the performance test according to the requirements in §63.5160(d)(3). You must meet the operating limits at all times after you establish them.

§63.5130(a)

For an existing source, the compliance date is 3 years after June 10, 2002.

§63.5150(a)

To demonstrate continuing compliance with the standards, you must monitor and inspect each capture system and each control device required to comply with §63.5120 following the date on which the initial performance test of the capture system and control device is completed. You must install and operate the monitoring equipment as specified in paragraphs (a)(1) through (4) of this section.

§63.5150(a)(3)

Temperature monitoring of oxidizers. If you are complying with the requirements of the standards in §63.5120 through the use of an oxidizer and demonstrating continuous compliance through monitoring of an oxidizer operating parameter, you must comply with paragraphs (a)(3)(i) through (iii) of this section.

§63.5150(a)(3)(i)

Install, calibrate, maintain, and operate temperature monitoring equipment according to manufacturers specifications. The calibration of the chart recorder, data logger, or temperature indicator must be verified every 3 months; or the chart recorder,

data logger, or temperature indicator must be replaced. You must replace the equipment either if you choose not to perform the calibration, or if the equipment cannot be calibrated properly. Each temperature monitoring device must be equipped with a continuous recorder. The device must have an accuracy of ± 1 percent of the temperature being monitored in degrees Celsius, or $\pm 1^{\circ}$ Celsius, whichever is greater.

§63.5150(a)(3)(ii)

For an oxidizer other than a catalytic oxidizer, to demonstrate continuous compliance with the operating limit established according to §63.5160(d)(3)(i), you must install the thermocouple or temperature sensor in the combustion chamber at a location in the combustion zone.

§63.5160(d)

Control device destruction or removal efficiency. If you are using an add-on control device, such as an oxidizer, to comply with the standard in §63.5120, you must conduct a performance test to establish the destruction or removal efficiency of the control device or the outlet HAP concentration achieved by the oxidizer, according to the methods and procedures in paragraphs (d)(1) and (2) of this section. During the performance test, you must establish the operating limits required by §63.5121 according to paragraph (d)(3) of this section.

§63.5160(d)(3)

Operating limits. If you are using a capture system and add-on control device other than a solvent recovery system for which you conduct a liquid-liquid material balance to comply with the requirements in §63.5120, you must establish the applicable operating limits required by §63.5121. These operating limits apply to each capture system and to each add-on emission control device that is not monitored by CEMS, and you must establish operating limits during the performance test required by paragraph (d) of this section according to the requirements in paragraphs (d)(3)(i) through (iii) of this section.

§63.5160(d)(3)(i)

Thermal Oxidizer. If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (d)(3)(i)(A) and (B) of this section.

§63.5160(d)(3)(i)(A)

During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes

during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

§63.5160(d)(3)(i)(B)

Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for you thermal oxidizer.

§63.5170(c)

Capture and control to reduce emissions to no more than the allowable limit.

If you use one or more capture systems and one or more control devices and demonstrate an average overall organic HAP control efficiency of at least 98 percent for each month to comply with §63.5120(a)(1); or operate a capture system and oxidizer so that the capture efficiency is 100 percent and the oxidizer outlet HAP concentration is no greater than 20 ppm_v on a dry basis to comply with §63.5120(a)(3), you must follow one of the procedures in paragraphs (c)(1) through (4) of this section. Alternatively, you may demonstrate compliance for an individual coil coating line by operating its capture system and control device and continuous parameter monitoring system according to the procedures in paragraph (i) of this section.

8. Tests that are required by the Director to determine compliance with the destruction efficiency as set forth in SPECIFIC REQUIREMENTS ~~A.1 and~~ A.7 of this permit shall be conducted in accordance with the methods as set forth below. The Director may require a different test method or approve an alternative method in light of any new technology advancements that may occur. Compliance testing shall be conducted at the maximum permitted operating conditions unless otherwise specified by the Director. Should the maximum permitted operating conditions allowed in this permit not be attainable during the initial compliance testing, then the facility shall be limited in operation to the maximum operating conditions attained during testing. The permittee shall again be required to perform such compliance testing when maximum permitted operating conditions are attainable. The maximum operating conditions attained during compliance testing shall be the maximum operating conditions allowed by this permit.
 - a. Tests to determine compliance with VOC emission limits shall be conducted in accordance with Method 25, or 25A as set forth in 40 CFR 60, Appendix A.

9. With regard to testing required by the Director, the permittee shall submit to the Director of Air Quality a test protocol detailing the proposed test methods, the date, and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information. The test protocol shall include the procedure for the determination of the maximum unit capacity (maximum airflow) and the operational constraint(s) placed on the system that shall not allow operation above this maximum capacity. The test protocol must be received by the Director no less than thirty (30) days prior to the date the testing is to take place. Test results shall be submitted to the Director within thirty (30) days of the stack testing date.
10. For the purposes of determining compliance with the limits set forth in SPECIFIC REQUIREMENTS ~~A.2, A.3,~~ A6 and A.11, the permittee shall maintain records of the following:
1. The name of each surface coating, as applied; and
 2. The mass of VOC, HAP, and solids per volume of each surface coating and the volume of each surface coating, as applied, used each month.

Additionally, within fifteen (15) days of the last day of each month, the permittee shall create a summary report that contains the following information: hourly, monthly, and rolling yearly emission rates for VOCs and aggregate and speciated HAPs from Emission Points ~~P17, P16 and 3E~~ 11E. Said records shall be maintained on-site for a period of five (5) years and shall be certified and made available to the Director of the Division of Air Quality or his/her duly authorized representative upon request.

11. For the purposes of determining compliance with the maximum fuel usage limits set forth in SPECIFIC REQUIREMENTS ~~A.4 and A.9~~ the permittee shall maintain accurate records of the hours of operation and the aggregate amount of natural gas consumed by the equipment therein. Said records shall be certified by a responsible official and shall be maintained on-site for a period of five (5) years. Said records shall be made available to the Director of the Division of Air Quality or his/her duly authorized representative upon request.

C. GENERAL REQUIREMENTS

1. In accordance with 45CSR30 - "Operating Permit Program", the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first filing a Certified Emissions Statement (CES) and paying the appropriate fee. Such Certified Emissions Statement (CES) shall be filed and the appropriate fee paid annually. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.
2. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.
3. The permitted facility shall be constructed and operated in accordance with information filed in Permit Applications R13-2379, R13-2379A, R13-2379B, R13-2379C and R13-2379CD and any amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
4. At such reasonable time(s) as the Secretary may designate, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in the permit application and/or applicable regulations. Test(s) shall be conducted in such a manner as the Secretary may specify or approve and shall be filed in a manner acceptable to the Secretary. The Secretary, or his/her duly authorized representative, may at his option witness or conduct such test. Should the Secretary exercise his option to conduct such test(s), the permittee shall provide all the necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment, and the required safety equipment such as scaffolding, railings, and ladders to comply with generally accepted good safety practices. For any tests to be conducted by the permittee, a test protocol shall be submitted to the DAQ by the permittee at least thirty (30) days prior to the test and shall be approved by the Secretary. The Secretary shall be notified at least fifteen (15) days in advance of the actual dates and times during which the test will be conducted.
5. In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations, either in whole or in part, authorized by this permit, the permittee shall notify the

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Jupiter Aluminum Corporation
Jupiter Coil Coating

Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

6. The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.
7. The permittee shall notify the Secretary, in writing, within fifteen (15) calendar days of the commencement of the construction, modification, or relocation activities authorized under this permit.
8. The permittee shall notify the Secretary, in writing, at least fifteen (15) calendar days prior to actual startup of the operations authorized under this permit.
9. This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13.
10. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7.
11. At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous calendar year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a submittal frequency other than on an annual basis.

ISSUED BY: _____

JOHN A. BENEDICT

WILLIAM F. DURHAM, DIRECTOR
WV DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

DATE SIGNED: _____

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Jupiter Aluminum Corporation
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Attachment 2

Compare File

**Changes Made to R13-2379E
After the Application Re-submittal
to Lower the RTO's Efficiency
to 96% from 98%**

Jupiter Aluminum Corporation

**Jupiter Coil Coating
8963 River Road
Wellsburg, WV 26030**