COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Blue Ridge Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Wolverine Advanced Materials – Blacksburg
201 Industrial Park Road S.E. Blacksburg, Virginia
Permit No. BRRO - 20763

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Wolverine Advanced Materials has applied for its renewal of a Title V Operating Permit for its Blacksburg Plant facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: Margaret O. Wagner Date: June 23, 2016
Margaret O. Wagner
(540) 562-6713

Air Permit Manager: David J. Brown Date: 6/23/16
David J. Brown

Regional Director: Robert J. Weld Date: 6/23/16
Robert J. Weld

FACILITY INFORMATION

Permittee
Wolverine Advanced Materials – Blacksburg
3175 State Street
Blacksburg, VA 24060

Facility
Wolverine Advanced Materials – Blacksburg Plant
201 Industrial Park S.E.
Blacksburg, VA 24060

County-Plant Identification Number: 51- 121-0065

SOURCE DESCRIPTION

NAICS Code: 339991 - Gasket, Packing, and Sealing Device Manufacturing
SIC Code: 3053 - Gaskets; packing and sealing devices

Wolverine Advanced Materials – Blacksburg operates a metal coil coating facility in Blacksburg, Virginia. The Blacksburg plant has potential emissions of volatile organic compounds (VOCs) over the Title V major source threshold for criteria pollutants of 100 tons per year (tpy). The facility currently operates with a Title V permit with an effective date of January 6, 2005 as modified on January 17, 2006 and is located in an attainment area for all pollutants. The facility also has one minor NSR permit issued on February 13, 2007 to modify and operate coating lines for manufacturing of gasket material.

PSD does not apply to the Blacksburg facility. Under the PSD regulations, a major stationary source for PSD is defined as any source in one of the 28 named source categories with the potential to emit 100 tpy or more of any regulated pollutant, or any source not in one of the 28 names source categories with the potential to emit 250 tpy or more of any regulated pollutant. Metal coil surface coating is not included in the "List of 28" source categories and potential emissions of regulated pollutants do not exceed 250 tpy for the Blacksburg facility.

In addition to being a major source of VOCs, the Blacksburg plant also has potential emissions of hazardous air pollutants (HAPs) over 10 tpy for several individual HAPs and 25 tpy for combined HAPs. As such, the facility is a major source of HAPs and is subject to the requirements of 40 CFR Part 63, Subpart SSSS - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating of Metal Coils.

The Blacksburg facility is comprised of two metal coil coating lines (CL2 and CL4). The lines are used to coat metal coils with rubber coatings, graphite coatings, and/or adhesives. Each coating line consists of multiple coating application stations and associated curing ovens. The coatings are applied to the metal coils as liquid without spraying, and immediately dried and cured in a heated curing oven. The application stations and heated curing ovens of CL2 and CL4 are totally enclosed with a total of six enclosures: two enclosures used on CL2 (one coating station and one primer station) and four enclosures on CL4 (two rubber coating stations, one adhesive station and one primer station) with VOC and HAP emissions exhausting to a regenerative thermal oxidizer (RTO) for destruction.

The facility also has a mixing room (M1) which is used to support the coating line operations. This is a coating mixing and coating preparation area. The mixing room is not exhausted to the RTO for control. VOC emissions are the only pollutant in this area.

Both CL2 and CL4 are affected sources under 40 CFR Part 63 – National Emission Standards for Hazardous Air Pollutants for Source Categories – Subpart SSSS - Metal Coil Surface Coating. Subpart SSSS applies to both CL2 and CL4 as existing sources.

The New Source Performance Standard (NSPS) Subpart TT applies to each metal coil surface coating operating in which organic coatings are applied that commenced construction, modification or reconstruction after January 5, 1981. CL2 was installed in 1973, before the proposal date of Subpart TT. Subpart TT is applicable to CL4, but the requirements are duplicative in that they are equally or less stringent control and monitoring requirements than the MACT Subpart SSSS requirements. The EPA's Applicability Determination Index (ADI) contains a determination that allows facilities subject to the metal coil surface coating requirements of both 40 CFR 63, Subpart SSSS and 40 CFR 60 Subpart TT, to streamline requirements of Subpart TT[1]. The Blacksburg facility is following the MACT SSSS requirements. Neither NSPS TT nor MACT SSSS applies to the coating line mixing room (CLMR), storage tanks, or other miscellaneous fuel burning activities.

40 CFR Part 63 Subpart EEEE, National Emissions Standards for Hazardous Air Pollutants – Organic Liquids Distribution (OLD NESHAP) establishes national emission limitations, operating limits, and work practice standards for organic hazardous air pollutants emitted from organic liquids distribution (OLD) (non-gasoline) operations at major sources of HAP emissions.

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1 - The EPA's Applicability Determination Index (ADI), Control #s M040025 and 0400019 (dated 5/17/04) states that EPA has concluded the MACT subpart SSSS control monitoring requirements and effluent gas temperature monitoring requirements may be streamlined with similar NSPS subpart TT monitoring requirements. The determination was made as a specific inquiry by the Wolverine – Blacksburg Plant. References cited in the ADI determinations: 40 CFR 60.462, 40 CFR 60.460, 40 CFR 63.5080, 40 CFR 63.5120(a) and 40 CFR 63.5160

This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations, operating limits, and work practice standards. The Blacksburg plant operates an organic liquid distribution operation that is classified as an existing affected source under the OLD NESHAP. Tank T1 (10,000 gallons) and T4 (5,000 gallons), both store organic liquids listed in Table 1 to Subpart EEEE. Tank T1 stores exclusively toluene. The annual average true vapor pressure of toluene, 3.8 kPa, is less than the threshold for control in Table 2 (27.6 kPa). Tank T4 stores MIBK which has a vapor pressure of 1.9 kPa, which again is less than the threshold for control in Table 2. Tanks T1 and T4 are not subject to control requirements under Subpart EEEE. However, Wolverine is required to comply with the notification, recordkeeping and reporting requirements outlined in §63.2343.

Material is transferred into tanks at the facility by way of a transfer rack. The transfer rack only unloads the product for use in the mixing room. The mixing room (M1) has four mixing tanks that are all less than 1,000 gallons each. Material is mixed in the mixing tanks for use on each line. Tanks T2 and T3 are 5,000 gallons and 3,000 gallons, respectively and neither tank contains a material identified as an organic liquid in Table 1. §63.2343(a) states that any storage tank with a capacity of less than 5,000 gallons and for each transfer rack that only unloads organic liquids, documentation must be kept up to date and readily available for inspection and review. The documentation may consist of identification of the tanks and the transfer racks on a plant site.

The facility has one small gas-fired boiler, unit CL2B. The boiler is used for heating water in the wash tanks and is subject to the notification and work practice standards of 40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. The MACT has a compliance date of January 31, 2016. Compliance for the facility entails initial notification, and following work practice standards including conducting an energy assessment and equipment tune-ups, reporting and recordkeeping. The two Diablo in-line process heaters that are used on CL2 and CL4 are both direct fired units. The heaters are used to directly pre-heat the air for the Clean Switch (RTO) and as a direct heat source for the coating line ovens. These units are not subject to the MACT as they are direct fired units.

This permit is being renewed subsequent to the facility's most recent Title V permit application, dated June 12, 2009 and received on June 19, 2009. The facility is currently operating under a Title V application shield.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site inspection, was conducted on November 25, 2014. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. On October 1, 2015 a NOV was issued to the facility for failure to submit Title V Semi-Annual Monitoring and MACT Subpart SSSS Semi-Annual Reports by the September 1, 2015 due date. The reports were submitted more than a month past the required date and the facility returned to compliance. Based on all other compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at the facility are reflected in the Title V permit on Page 5.

EMISSIONS INVENTORY

A copy of the 2014 annual emission update is attached.
Emissions are summarized in the following tables.

2014 Actual Emissions

	Criteria Pollutant Emission in Tons/Year				
	VOC	CO	SO_2	PM_{10}	NO_x
Facility wide	7.41	2.81	0.02	0.25	3.35

2014 Facility Hazardous Air Pollutant Emissions

Pollutant	Hazardous Air Pollutant Emission in Tons/Yr
Hexane	1.58 E-01
MIBK	7.26 E-01
N,N-Dimethyl Formamide	1.96 E-02
Phenol	4.00 E-03
Toluene	4.05 E+00
Plantwide Total	4.97 E+00

EMISSION UNIT APPLICABLE REQUIREMENTS – CL2B (Boiler)

Boiler MACT (40 CFR 63 Subpart DDDDD)

General Compliance Requirements

Condition 2 – The facility is required to meet the General Provisions a specified in 40 CFR 63.7565.

Boiler MACT Initial Compliance Requirements

Conditions 3 and 4 - 40 CFR 63 Subpart DDDDD contains requirements for boilers at major sources of all sizes. CL2B is a 2.1 MMBtu/hr natural gas fired boiler used for heating water in the wash tanks. The MACT requires work practices standards by way of a one-time energy assessment performed by a qualified energy assessor and a boiler tune-up every 5 years.

Boiler MACT Continuous Compliance Requirements

Conditions 5 through 7 - The MACT requires that the facility operate and maintain the boiler in a manner consistent with safety and good air pollution control practices for minimizing emissions and to demonstrate continuous compliance by conducting a tune-up of the boiler very five years.

Boiler MACT Notifications, Reports and Recordkeeping Requirements

Conditions 8 through 11 - The MACT requires that the facility submit a Notification of Compliance status report as well as any reports outlined in Table 9. The facility is also required to maintain records onsite in a form suitable and readily available for expeditious review.

Streamlined Requirements
None

EMISSION UNIT APPLICABLE REQUIREMENTS – Coating Lines #2 and #4 (CL2 and CL4)

Limitations
Process equipment at Blacksburg facility includes coating lines #2 and #4 (CL2 and CL4) which are included in an NSR permit last amended on February 13, 2007.

The limits for CL2 and CL4 remain unchanged and are carried forward from the Feb. 13, 2007 NSR permit, and include: VOC throughput and emission limits and visible emission limits on both CL2 and CL4. Hourly VOC limits are based upon the maximum hourly rated capacity of

the coating lines and 98% VOC control efficiency. The annual VOC limit is based on plant hours of operation up to the VOC throughput limitation, with 98% control efficiency applied.

Conditions 12, 13 and 14 – The facility is required to control VOC emissions from CL2 and CL4 by permanent total enclosure for each line and by a regenerative thermal oxidizer (RTO) with a control efficiency of no less than ninety-eight percent (98%).

Condition 15 – The facility has an annual throughput limit of VOCs for CL2.

Condition 16 – The facility has an annual throughput limit of VOCs for CL4.

Condition 17 – The allowable emission rates from CL2 are limited.

Condition 18 – The allowable emission rates from CL4 are limited.

Condition 19 - There is a visible emission limitation of 5% opacity on CL2 and CL4.

Monitoring

Condition 21 – CL2 and CL4 are required to be observed for the presence of visible emissions at least once per week.

The compliance demonstration for Subpart SSSS (MACT) is VOC destruction. The VOC destruction requirement from the NSR permit is 98% and the capture and control requirements for VOC emissions are included in the permit.

The monitoring, recordkeeping and reporting is based on Virginia's New and Modified Sources regulations (9 VAC 5-80-1100 et seq.), State Operating Permits regulations (9 VAC 5-80-800 et seq.) and the periodic monitoring regulations (9 VAC 5-80-110 E & K). Weekly monitoring of visible emissions is included in the permit instead of daily as the facility is required to monitor temperature continuously for MACT Subpart SSSS. Maintaining the appropriate temperature of the control devices would provide adequate combustion to indicate that there should not be any visible emissions. The monitoring (weekly visible emission observations) and recordkeeping (monthly and annual VOC throughput, emissions, stack test and visible emissions observations and maintenance records) that is included in this section (CL2 and CL4), in conjunction with the monitoring and recordkeeping included in MACT SSSS section of the permit is considered sufficient to assure compliance with the limits in the permit.

The stack testing and visible emissions evaluation requirements are carried forward from the February 13, 2007 NSR permit into the Title V permit. No specific testing is required but the

agency maintains the authority to require testing if necessary to determine compliance with an emission limit or standard.

Recordkeeping
The recordkeeping requirements are carried forward from the February 13, 2007 NSR permit into the Title V permit:

> **Condition 22** - The permit includes requirements for maintaining records to include the following: monthly and annual VOC throughput in tons for CL2 and CL4; monthly and annual VOC emissions for CL2 and CL4; results of all stack tests, visible emission evaluations and performance evaluations; MSDSs or CPDSs or other vendor information showing the VOC content, HAP content, water content, and solids content for each coating used; and scheduled, unscheduled and operator training records for CL2 and CL4.

Testing

> **Conditions 23, 24 and 25 -** The permit includes conditions to address stack testing and visible emissions evaluations from CL2 and/or CL4, upon request of the agency.

Streamlined Requirements
Condition 5 of the February 13, 2007 minor NSR permit has been streamlined from the permit. A revised condition using current boilerplate language was added to the Facility wide conditions of the Title V permit to address emissions testing at the appropriate locations.

Condition 8 of the February 13, 2007 minor NSR permit requires that the NSPS equipment described in the permit be operated in compliance with the requirements of 40 CFR 60, Subpart TT. This condition was streamlined from the permit. The emission standards and monitoring requirements of Subpart SSSS are acceptable to replace the NSPS requirements when using the HAP destruction efficiency provisions of the MACT. The requirements of Subpart SSSS have been included in the Title V permit therefore; this condition is no longer necessary.

Condition 9 – of the February 13, 2007 minor NSR permit requires that the MACT equipment described in the permit be operated in compliance with the requirements of 40 CFR 63, Subpart SSSS. This condition was streamlined from the permit. This condition is not included because this Title V permit addresses both regulations as discussed above.

Condition 10 – of the February 13, 2007 minor NSR permit states that if there is a conflict between 40 CFR Part 60 Subpart TT and 40 CFR Part 63, Subpart SSSS, that Subpart SSSS is the prevailing regulation. This condition was streamlined from the permit. The requirements of Subpart SSSS have been included in the Title V permit therefore; this condition is duplicative and no longer necessary.

EMISSION UNIT APPLICABLE REQUIREMENTS – Miscellaneous Equipment (M1)

Limitations
Miscellaneous equipment at Blacksburg facility includes the mixing room (M1 - coating mixing and coating preparation). VOC emissions generated in this area are not exhausted to the RTO for control.

The only limitation included in the permit addresses visible emissions. The visible emission limit is 5% with a requirement to conduct weekly observations.

Condition 26 – There is a visible emission limitation of 5% opacity on M1.

Monitoring

Condition 27 – Includes a requirement that M1 be observed for the presence of visible emissions at least once per week.

Recordkeeping

Condition 28 - The permit includes a requirement for the permittee to maintain records of all visible emission for M1.

Testing
None.

Streamlined Requirements
None.

EMISSION UNIT APPLICABLE REQUIREMENTS – Organic Liquids Distribution (OLD) MACT (40 CFR 63 Subpart EEEE) – Tanks T1 through T4 and Transfer Racks

Equipment at the Blacksburg facility included in this section includes solvent tanks T1 through T4 and transfer racks.

Condition 30 – Tanks T2, T3 and the transfer racks shall comply with the requirements of §63.2343(a). This section only requires that the facility maintain records onsite of these units.

Condition 31 – Tanks T1 and T4 shall comply with the requirements of §63.2343(b).

Condition 32 – Tanks T1 and T4 shall comply with the notification requirements of §63.2382.

Condition 33 – Tanks T1 and T4 shall comply with the reporting requirements of §63.2386.

Condition 34 – Tanks T1 and T4 shall comply with the recordkeeping requirements of §63.2390.

Condition 35 – Tanks T1 through T4 and the transfer racks must comply with the General Provisions in §§63.1 through 63.15 that are applicable as specified in §63.2398.

As stated in the Source Description section above, both Tanks T1 and T4 store organic liquids listed in Table 1 to Subpart EEEE. However, the vapor pressures of the materials stored in each tank is less than the threshold for control in Table 2 (27.6 kPa), so the tanks are not subject to control requirements under Subpart EEEE. However, Wolverine is required to comply with the notification, recordkeeping and reporting requirements outlined in §63.2343.

Streamlined Requirements
None

EMISSION UNIT APPLICABLE REQUIREMENTS – Surface Coating of Metal Coil MACT, Subpart SSSS – CL2 and CL4

Limitations
The coating lines (CL2 and CL4) are both subject to the requirements of 40 CFR Part 63, Subpart SSSS – National Emission Standards for Surface Coating of Metal Coil. The permit includes the requirements of Subpart SSSS.

Limitations of the MACT have been outlined in the permit and include:

Condition 37 – The MACT requires that each coil coating affected source limit organic HAP emissions by one of three options. Blacksburg has chosen to use a 98% VOC destruction efficiency using a permanent total enclosure and regenerative thermal oxidizer (see §63.5120(a)(1)). Because the minor NSR permits also stipulate permanent total enclosure followed by oxidation, 98% control is the only §63.5120(a) option included in the Title V permit.

Condition 38 – The permit addresses operating limits which are indentified in Table 1 of the MACT. The operating limits were established during performance testing.

Conditions 39 and 40 – The permit addresses general requirements the facility is

required to meet including the General Provisions listed in Table 2 of the Subpart.

Monitoring
The monitoring requirements of Subpart SSSS have been outlined in the permit and include the following:

Condition 41 – The permit addresses temperature monitoring to demonstrate continuous compliance with the requirements of the MACT.

Condition 42 - The permit includes a requirement that the RTO for CL2 and CL4 be equipped with a device to monitor and record the gas temperature in accordance with Subpart SSSS. The facility is required to maintain a 3 hour average gas temperature of no less than 1589 °F.

Condition 43 - The permit requires the facility to develop and implement a capture system monitoring plan.

Compliance
The following compliance requirements for MACT affected equipment are included in the Title V permit:

Condition 44 – Emissions from CL2 and CL4 shall be controlled by a permanent total enclosure and an RTO with a minimum of 98% destruction efficiency as specified in Table 1 of §63.5170. In addition, the permit requires that the facility base ongoing compliance with the 98% reduction efficiency requirement using monitoring of parameters established during an initial performance test for VOC destruction efficiency and capture efficiency. Whenever the coil coating lines are in operation, the permittee must continuously monitor the operating parameters established during testing.

Reporting
The following reporting and recordkeeping requirements for MACT affected equipment are included in the Title V permit and taken from §63.5180 (f) and (g):

Condition 45 – Start-up, shutdown and malfunction reports as specified in §63.10(d)(5) and semi-annual reports to meet the requirements of §63.5180(g)(1) and (2).

In addition, the Recordkeeping and Reporting requirements of the Title V General Conditions apply to the manufacturing facility.

Recordkeeping

The following recordkeeping requirements for MACT affected equipment are included in the Title V permit:

Condition 46.a – Continuous temperature records and 3-hour averages of the combustion chamber of the RTO.

Condition 46.b. – Control device and capture system operating parameter data in accordance with 40 CFR 63.5150(a)(1), (2) and (3).

Condition 46.c - Monitoring system calibrations and calibration checks for both CL2 and CL4.

Condition 46.d - Records specified in 40 CFR 63.5190(a) and (b).

The recordkeeping that is included in this section (Surface Coating of Metal Coil MACT), in conjunction with the limitations, monitoring and compliance outlined above is considered sufficient to assure compliance with the emission limits in the permit. The limitations, monitoring, compliance, recordkeeping and reporting are based on MACT SSSS (40 CFR 63.5080 et. Seq.)

Streamlined Requirements

The New Source Performance Standard (NSPS) Subpart TT applies to each metal coil surface coating operating in which organic coatings are applied that commenced construction, modification or reconstruction after January 5, 1981. Subpart TT is not applicable to CL2 as this line was installed in 1973 before promulgation of this regulation and the requirements. Subpart TT is applicable to CL4 but the requirements are duplicative in that they are equally or less stringent control and monitoring requirements than the MACT Subpart SSSS requirements. The Blacksburg facility is following the MACT SSSS requirements. Neither NSPS TT nor MACT SSSS applies to the mixing room (M1), storage tanks, or other miscellaneous fuel burning activities. The streamlined Subpart TT requirements are outlined in the Table below:

Description of requirement being streamlined	Basis for "Streamlined out" requirement	Description of Permit requirement	Basis for Streamlining
90% VOC control value requirement	NSPS TT VOC Control Standard: 40 CFR 60.462(a)(3)	98% VOC control required for CL4	MACT SSSS requirement more stringent than NSPS TT.
The requirement that temperature monitoring be conducted every 15 minutes in NSPS Subpart TT	NSPS TT VOC Control Standard.	Monitor temperature continuously	MACT SSSS continuous monitoring is more stringent than NSPS TT.

The requirement that the thermal oxidizer combustion temperature drop no more than 50°F from the temperature measured during the performance test.	NSPS TT VOC Control Standard.	Thermal oxidizer combustion temperature remain at least as high as T° measured during the initial performance test (1589 °F) in accordance with MACT SSSS.	MACT SSSS temperature operating requirement is more stringent than NSPS TT.

Testing
Blacksburg conducted a performance test to establish the removal destruction efficiency of the control device and to verify that their capture systems had 100% capture efficiency. During the initial performance test, operating limits for control device operating temperatures (reflected in permit conditions) were established and the pressure drop across each enclosure was verified.

The test was conducted as follows:

CL2 and CL4 – May 19, 2005 – result: 99.89% destruction efficiency

Additional testing requirements are not included in the Title V renewal permit. The permit does include language in Conditions 24 and 25 that upon request by the DEQ, the permittee shall conduct enclosure testing and/or performance tests for Volatile Organic Compounds from the coating preparation equipment and/or metal coil coating lines to demonstrate compliance with the emission limits and control efficiency requirements contained in this permit.

GENERAL CONDITIONS
The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions:

54. through 58. Permit Expiration
This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.2-604 and §10.1-1185 of the *Code of Virginia,* and the "Department of Environmental Quality Agency Policy Statement No. 2-09".

64. Failure/Malfunction Reporting
Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the

general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

82. through 85. Malfunction as an Affirmative Defense
The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Conditions 79 through 82. For further explanation see the comments on General Condition 61.

89. Asbestos Requirements
The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

STATE-ONLY REQUIREMENTS
There are no "State Only" requirements contained in the underlying minor NSR permit or in the Title V permit.

FUTURE APPLICABLE REQUIREMENTS
There are no future applicable requirements anticipated for the facility at this time.

INAPPLICABLE REQUIREMENTS

The Blacksburg facility identified inapplicable requirements in Appendix B of the June 12, 2009, Title V application submitted.

Compliance Assurance Monitoring (CAM)
In accordance with the requirements of 40 CFR 64, Compliance Assurance Monitoring (CAM) review for CAM applicability has been completed. The three conditions that must be met for an emissions unit to be subject to CAM are:

1. Emits or has the potential to emit (in the absence of add-on controls) a regulated pollutant in an amount that exceeds its major source threshold,
2. is subject to an emission limitation for that pollutant(s), and
3. uses a control device to achieve compliance with one or more of these emission limitations.

A unit must meet all three conditions to be subject to CAM. The VOC (most of which are HAPs as listed above) emissions from the facility are subject to 40 CFR 63 Subpart SSSS, a MACT

promulgated after November 15, 1990. Other than VOC and VOC HAP emissions, Blacksburg does not emit any other pollutants at levels that would trigger CAM review. Therefore, CAM does not apply to the coil coating gasket manufacturing emission units per 40 CFR 64.2(a)(3) and (b)(1)(i). CAM does not apply to any unit at the facility.

(GHG)Emissions: There are no applicable GHG permitting requirements.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
RG	Rubber Grinder	9 VAC 5-80-720 B	PM	
CL2-D	CL2 Diablo in-line Process Heater	9 VAC 5-80-720 C	NOx, CO, PM, VOC	8.0 MMBtu/hr input natural gas
CL4-D	CL2 Diablo in-line Process Heater	9 VAC 5-80-720 C	NOx, CO, PM, VOC	4.0 MMBtu/hr input natural gas
G1 & G2	Oil Water Separators	9 VAC 5-80-720B	VOC	
WA 1	Waldron coating line (water-based coatings) with small gas fired dryer	9 VAC 5-80-720B	NOx, VOC, PM, CO	----

[1]The citation criteria for insignificant activities are as follows:
9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The draft permit will be placed on public notice in *The Roanoke Times* from May 9, 2016 to June 8, 2016. The public comment period ran from May 9, 2016 to June 8, 2016. The EPA review

period ended on June 23, 2016. No comments were received.

LIST OF APPENDICES

APPENDIX A: Annual Emission Inventory Statement for 2014.

APPENDIX B: EPA ADI for NSPS TT / MACT SSSS streamlining

APPENDIX C: Facility Monitoring Plan

APPENDIX A

Blue Ridge Regional Office
3019 Peters Creek Road, Roanoke, VA24019
Phone #: (540) 562-6700

Registration #: 20763
Site Name: Wolverine Advanced Materials - Blacksburg
Address: 201 Industrial Park Rd, Blacksburg, VA 24060
Contacts: Sonny Long: (540) 557-6262
Danielle Barrack: (540) 557-6262
Eugene Pritts: (540) 557-6262

Report #: 303880
CMS: Title V Major
Classification: Major/Potential Major

AIR INSPECTION REPORT

The purpose of this inspection report is to document DEQ's observations and provide the compliance status for requirements applicable to the facility. Presented below are the following:

- **Inspection Details** describe this inspection report
- **Compliance Summary** lists individual requirements addressed in the report
- **Inspection Summary** provides an overview of the inspector's observations
- **Inspection Checklist** provides additional details and individual observations related to specific requirements

Inspection Details

Inspection Date:	May 8, 2015
Inspection Reason:	Review T5 Emissions Statement
Reporting Period:	01/01/2014 - 12/31/2014
Inspector:	Robina Jordan
Inspection Result:	In Compliance

Program Code	Subpart
TITLE V	

Compliance Summary

In Compliance **The applicable requirements listed in the table below were confirmed during the inspection to be in compliance.**

Permit Effective Date or Regulation	Applicable Requirement
1/17/2006 TITLEV	VIII.P

Approvals

Robina F. Jordan

Inspector: Robina Jordan
Signed Date: May 8, 2015

Frank Adams
5/13/15

Supervisor: Frank Adams

Inspection Summary

The 2014 Emission Statement was returned in a timely manner and found to be complete and accurate.

Inspection Checklist

Effective Date: Jan 17, 2006 **Applicable Requirement #:** VIII.P **Compliance Status:** In Compliance

Applicable Requirement
Duty to Pay Permit Feeds - The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

Observation
The submission deadline was met.
The Document Certification was signed.
Documentation supporting emissions calculations was received.
Emission calculations were acceptable.
Fee emissions reported match those in CEDS.

DEQ

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY CEDS 4.16.15 TCP

2014 EMISSION STATEMENT

RECEIVED APR 15 2015 DEQ - BRRO

Please correct any errors in the information below (cross out & replace)

FACILITY NAME WOLVERINE ADVANCED MATERIALS BLACKSBURG	***REGISTRATION #*** 20763	***CONTACT PERSON*** TIM FRAZIER	
LOCATION ADDRESS 201 Industrial Park Rd Blacksburg VA		***JURISDICTION*** Montgomery County	
MAILING ADDRESS 201 Industrial Park Rd	***MAILING CITY AND STATE*** Blacksburg VA	***ZIPCODE*** 04060	
OWNER NAME Wolverine Advanced Materials	***TELEPHONE NUMBER***	***PRIMARY NAICS CODE*** 339991	For Agency Use Only TS Major

FACILITY TOTALS *(Sum emissions from attached pages)*

	ANNUAL	OZONE SEASON
TOTAL VOC EMISSIONS FOR 2014	7.41 TONS/YR	40.68 LBS/DAY
TOTAL NO_X EMISSIONS FOR 2014	3.35 TONS/YR	18.33 LBS/DAY
TOTAL SO_2 EMISSIONS FOR 2014	0.02 TONS/YR	NA
TOTAL PM_{10} EMISSIONS FOR 2014	0.25 TONS/YR	NA
TOTAL PB EMISSIONS FOR 2014	0.00002 TONS/YR	NA
TOTAL TRS EMISSIONS FOR 2014	0.00 TONS/YR	NA
TOTAL TNMOC EMISSIONS FOR 2014 *(landfills only)*	0.00 TONS/YR	NA
TOTAL non-VOC/non-PM HAP EMISSIONS FOR 2014	0.00 TONS/YR	NA
TOTAL CO EMISSIONS FOR 2014	2.81 TONS/YR	NA
TOTAL $PM_{2.5}$ EMISSIONS FOR 2014	0.25 TONS/YR	NA
TOTAL NH3 EMISSIONS FOR 2014	0.11 TONS/YR	NA

PLEASE ATTACH "ANNUAL UPDATE" FORM.
PLEASE ATTACH "EMISSION STATEMENT CERTIFICATION" with appropriate signature.

DEQ

VIRGINIA DEPARTMENT OF
ENVIRONMENTAL QUALITY

EMISSION STATEMENT CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(see reverse side for instructions)

SIGNATURE: _____ **DATE:** 4/15/15

PRINTED NAME: TIMOTHY W. FRAZIER

TITLE: PLANT MANAGER

COMPANY: WOLVERINE ADVANCED MATERIALS

REGISTRATION NUMBER: 20763

TELEPHONE NUMBER: (540) 557-6284

Wolverine ADVANCED MATERIALS

201 Industrial Park Rd., Blacksburg, Virginia 24060
T: 540.552.7674 F: 540.552.6082

April 15, 2015

Ms. Robina Jordan
Environmental Engineer Senior (Compliance)
Department of Environmental Quality
West Central Regional Office
3019 Peters Creek Road
Roanoke, VA 24019

VIA ELECTRONIC SUBMISSION ONLY

Re: Wolverine Advance Materials – Blacksburg: Annual Update/Emissions Statement; Registration #20763; Wolverine Advance Materials – Cedar Run: Annual Update/Emissions Statement; Registration #21240.

Dear Ms. Jordan:

Enclosed are the 2014 Annual Update and Annual Emissions Statement forms for the Blacksburg and Cedar Run Wolverine Advance Material Facilities. Also enclosed are the signed certification documents and supporting forms.

If you have any questions regarding these reports, please feel free to contact me at (540) 557-6262.

Regards,

Wolverine ADVANCED MATERIALS

201 Industrial Park Rd., Blacksburg, Virginia 24060
T: 540.552.7674 F: 540.552.6082

Ms. Danielle Barrack,
Environmental, Health, & Safety Manager

CHA/DB

Enclosures

cc: Sandra Warner, C.P.G., Project Manager, CHA Consulting, Inc. (w/encl.)

2014 EMISSION CALCULATIONS
OPTION I: EMISSION FACTOR METHOD

REGISTRATION #: 20763 *STACK NO.:* 2 *POINT NO.:* 20 *SEGMENT NO.:* 1 *SCC NO.:*3-08-006-99

	ANNUAL		PEAK OZONE SEASON (JUNE, JULY, AUGUST)	
THRUPUT (with units)	12,094 gallons		3,096 gallons	
NO. OPERATING DAYS	365 days		92 days	
NO. OPERATING HOURS PER DAY	24 hours		24 hours	
DAILY THRUPUT (with units) = Thruput) days	NA		33.65 gallons per day	
VOC EMISSION FACTOR (with units) = EF	0.036 lb/gal		0.032 lb/gal	
Emission Factor source[1] / Control Efficiency basis[2]	C	A	C	A
VOC CONTROL DEVICE CODE[3]	131		131	
Avg. VOC CONTROL EFFICIENCY[4] = CE	99.3 %		99.3 %	
VOC EMISSIONS[5]	0.22 tons VOC per yr		1.09 lbs VOC per day	
NOx EMISSION FACTOR (with units) = EF				
Emission Factor source[1] / Control Efficiency basis[2]				
NOx CONTROL DEVICE CODE[3]				
Avg. NOx CONTROL EFFICIENCY[4] = CE	%		%	
NOx EMISSIONS[5]	tons NOx per yr		lbs NOx per day	
SO2 EMISSION FACTOR (with units) = EF				
Emission Factor source[1] / Control Efficiency basis[2]				
FUEL PARAMETER (% ash or % sulfur) = FP	%		%	
SO2 CONTROL DEVICE CODE[3]				
Avg. SO2 CONTROL EFFICIENCY[4] = CE	%		%	
SO2 EMISSIONS[5]	tons SO2 per yr		lbs SO2 per day	
PM10 EMISSION FACTOR (with units) = EF				
Emission Factor source[1] / Control Efficiency basis[2]				
FUEL PARAMETER (% ash or % sulfur) = FP	%		%	
PM10 CONTROL DEVICE CODE[3]				
Avg. PM10 CONTROL EFFICIENCY[4] = CE	%		%	
PM10 EMISSIONS[5]	tons PM10 per yr		lbs PM10 per day	
PB EMISSION FACTOR (with units) = EF				
Emission Factor source[1] / Control Efficiency basis[2]				
PB CONTROL DEVICE CODE[3]				
Avg. PB CONTROL EFFICIENCY[4] = CE	%		%	
PB EMISSIONS[5]	tons PB per yr		lbs PB per day	

1. AP-42; CEMS; ST = Stack test; F = Federal factor (EPA standard factor); O = Other (describe on separate sheet; use subject to DEQ approval)
2. A = Tested (by EPA Reference Method); B = Tested (other); C = Material balance; D = Design; O = Other (describe on separate sheet)
3. See 3-digit control device codes listed in appendix.
4. Note control efficiency will be zero if there is no control device OR the emission factor accounts for controls (i.e. EF is identified to be "with controls").
5. Annual Emissions = ANNUAL THRUPUT x EF x FP x (1/2000) x (100-CE)/100 ; Ozone Emissions = DAILY THRUPUT x EF x FP x (100-CE)/100

2014 EMISSION CALCULATIONS
OPTION I: EMISSION FACTOR METHOD (HAPs)

REGISTRATION #: 20763 STACK NO.: 2 POINT NO.: 20 SEGMENT NO.: 1 SCC NO.: 3-08-006-99

	ANNUAL	PEAK OZONE SEASON (JUNE, JULY, AUGUST)
THRUPUT (with units)	12,094 gallons	
NO. OPERATING DAYS	365 days	days
NO. OPERATING HOURS PER DAY	24 hours	hours
DAILY THRUPUT (with units) = Thrupul) days	NA	per day
HAP EMISSION FACTOR (with units) = EF	0.00005 lb/gal	
Emission Factor source[1] / Control Efficiency basis[2]	C / A	
HAP CONTROL DEVICE CODE[3]	131	
Avg. HAP CONTROL EFFICIENCY[4] = CE	99.3 %	%
HAP (000082-12-2) EMISSIONS[5]	0.0003 tons per yr	lbs TNMOC per day
HAP EMISSION FACTOR (with units) = EF	0.0001 lb/gal	
Emission Factor source[1] / Control Efficiency basis[2]	C / A	
HAP CONTROL DEVICE CODE[3]	131	
Avg. HAP CONTROL EFFICIENCY[4] = CE	99.3 %	%
HAP (000110-54-3) EMISSIONS[5]	0.0006 tons per yr	tons per yr
HAP EMISSION FACTOR (with units) = EF	0.002 lb/gal	
Emission Factor source[1] / Control Efficiency basis[2]	C / A	
HAP CONTROL DEVICE CODE[3]	131	
Avg. HAP CONTROL EFFICIENCY[4] = CE	99.3 %	%
HAP (000108-10-1) EMISSIONS[5]	0.012 tons per yr	lbs per day
HAP EMISSION FACTOR (with units) = EF	0.00005 lb/gal	
Emission Factor source[1] / Control Efficiency basis[2]	C / A	
HAP CONTROL DEVICE CODE[3]	131	
Avg. HAP CONTROL EFFICIENCY[4] = CE	99.3 %	%
HAP (108-95-2) EMISSIONS[5]	0.0003 tons per yr	lbs per day
HAP Emission Factor (with units) = EF	0.015 lb/gal	
Emission Factor source[1] / Control Efficiency basis[2]	C / A	
HAP CONTROL DEVICE CODE[3]	131	
Avg. HAP CONTROL EFFICIENCY[4] = CE	99.3 %	%
HAP (108-88-3) EMISSIONS[5]	0.092 tons per yr	lbs per day

1. AP-42; CEMS; ST = Stack test; F = Federal factor (EPA standard factor); O = Other (describe on separate sheet; use subject to DEQ approval)
2. A = Tested (by EPA Reference Method); B = Tested (other); C = Material Balance; D = Design; O = Other (describe on separate sheet)
3. See 3-digit control device codes listed in appendix.
4. Note control efficiency will be zero if there is no control device OR the emission factor accounts for controls (i.e. EF is identified to be "with controls").
5. Annual Emissions = ANNUAL THRUPUT x EF x FP x (1/2000) x (100-CE)/100 ; Ozone Emissions = DAILY THRUPUT x EF x FP x (100-CE)/100

2013 4MISSION CALCULATIONS
OPTION I: EMISSION FACTOR METHOD

REGISTRATION #: **20763** *STACK NO.:* **2** *POINT NO.:* **21** *SEGMENT NO.:* **1** ***SCC NO.:3-08-006-99***

	ANNUAL		PEAK OZONE SEASON (JUNE, JULY, AUGUST)	
THRUPUT (with units)	395,671 gallons		99,611 gallons	
NO. OPERATING DAYS	365 days		92 days	
NO. OPERATING HOURS PER DAY	24 hours		24 hours	
DAILY THRUPUT (with units) = Thruput) days	NA		1,083 gallons per day	
VOC EMISSION FACTOR (with units) = EF	**0.035 lb/gal**		0.035 lb/gal	
Emission Factor source[1] / Control Efficiency basis[2]	C	A	C	A
VOC CONTROL DEVICE CODE[3]	131		131	
Avg. VOC CONTROL EFFICIENCY[4] = CE	99.3 %		99.3 %	
VOC EMISSIONS[5]	6.91 tons VOC per yr		38.04 lbs VOC per day	
NOx EMISSION FACTOR (with units) = EF				
Emission Factor source[1] / Control Efficiency basis[2]				
NOx CONTROL DEVICE CODE[3]				
Avg. NOx CONTROL EFFICIENCY[4] = CE	%		%	
NOx EMISSIONS[5]	tons NOx per yr		lbs NOx per day	
SO2 EMISSION FACTOR (with units) = EF				
Emission Factor source[1] / Control Efficiency basis[2]				
FUEL PARAMETER (% ash or % sulfur) = FP	%		%	
SO2 CONTROL DEVICE CODE[3]				
Avg. SO2 CONTROL EFFICIENCY[4] = CE	%		%	
SO2 EMISSIONS[5]	tons SO2 per yr		lbs SO2 per day	
PM10 EMISSION FACTOR (with units) = EF				
Emission Factor source[1] / Control Efficiency basis[2]				
FUEL PARAMETER (% ash or % sulfur) = FP	%		%	
PM10 CONTROL DEVICE CODE[3]				
Avg. PM10 CONTROL EFFICIENCY[4] = CE	%		%	
PM10 EMISSIONS[5]	tons PM10 per yr		lbs PM10 per day	
PB EMISSION FACTOR (with units) = EF				
Emission Factor source[1] / Control Efficiency basis[2]				
PB CONTROL DEVICE CODE[3]				
Avg. PB CONTROL EFFICIENCY[4] = CE	%		%	
PB EMISSIONS[5]	tons PB per yr		lbs PB per day	

4. AP-42; CEMS; ST = Stack test; F = Federal factor (EPA standard factor); O = Other (describe on separate sheet; use subject to DEQ approval)
5. A = Tested (by EPA Reference Method); B = Tested (other); C = Material balance; D = Design; O = Other (describe on separate sheet)
6. See 3-digit control device codes listed in appendix.
4. Note control efficiency will be zero if there is no control device OR the emission factor accounts for controls (i.e. EF is identified to be "with controls").
5. Annual Emissions = ANNUAL THRUPUT x EF x FP x (1/2000) x (100-CE)/100 ; Ozone Emissions = DAILY THRUPUT x EF x FP x (100-CE)/100

2014 EMISSION CALCULATIONS
OPTION I: EMISSION FACTOR METHOD (HAPs)

REGISTRATION #: 20763 STACK NO.: 2 POINT NO.: 21 SEGMENT NO.: 1 SCC NO.: 3-08-006-99

	ANNUAL	PEAK OZONE SEASON (JUNE, JULY, AUGUST)
THRUPUT (with units)	395,671 gallons	
NO. OPERATING DAYS	365 days	days
NO. OPERATING HOURS PER DAY	24 hours	hours
DAILY THRUPUT (with units) = Thruput) days	NA	per day
HAP EMISSION FACTOR (with units) = EF	0.0001 lb/gal	
Emission Factor source[1] / Control Efficiency basis[2]	C / A	
HAP CONTROL DEVICE CODE[3]	131	
Avg. HAP CONTROL EFFICIENCY[4] = CE	99.3 %	%
HAP (000062-12-2) EMISSIONS[5]	0.019 tons per yr	lbs TNMOC per day
HAP EMISSION FACTOR (with units) = EF	0.0005 lb/gal	
Emission Factor source[1] / Control Efficiency basis[2]	C / A	
HAP CONTROL DEVICE CODE[3]	131	
Avg. HAP CONTROL EFFICIENCY[4] = CE	99.3 %	%
HAP (000110-54-3) EMISSIONS[5]	0.097 tons per yr	tons per yr
HAP EMISSION FACTOR (with units) = EF	0.0035 lb/gal	
Emission Factor source[1] / Control Efficiency basis[2]	C / A	
HAP CONTROL DEVICE CODE[3]	131	
Avg. HAP CONTROL EFFICIENCY[4] = CE	99.3 %	%
HAP (000108-10-1) EMISSIONS[5]	0.701 tons per yr	lbs per day
HAP EMISSION FACTOR (with units) = EF	0.000005 lb/gal	
Emission Factor source[1] / Control Efficiency basis[2]	C / A	
HAP CONTROL DEVICE CODE[3]	131	
Avg. HAP CONTROL EFFICIENCY[4] = CE	99.3 %	%
HAP (108-95-2) EMISSIONS[5]	0.001 tons per yr	lbs per day
HAP Emission Factor (with units) = EF	0.020 lb/gal	
Emission Factor source[1] / Control Efficiency basis[2]	C / A	
HAP CONTROL DEVICE CODE[3]	131	
Avg. HAP CONTROL EFFICIENCY[4] = CE	99.3 %	%
HAP (108-88-3) EMISSIONS[5]	3.906 tons per yr	lbs per day

4. AP-42; CEMS; ST = Stack test; F = Federal factor (EPA standard factor); O = Other (describe on separate sheet; use subject to DEQ approval)
5. A = Tested (by EPA Reference Method); B = Tested (other); C = Material Balance; D = Design; O = Other (describe on separate sheet)
6. See 3-digit control device codes listed in appendix.
4. Note control efficiency will be zero if there is no control device OR the emission factor accounts for controls (i.e. EF is identified to be "with controls").
5. Annual Emissions = ANNUAL THRUPUT x EF x FP x (1/2000) x (100-CE)/100 ; Ozone Emissions = DAILY THRUPUT x EF x FP x (100-CE)/100

2014 EMISSION CALCULATIONS
OPTION I: EMISSION FACTOR METHOD (HAPs)

REGISTRATION #: 20763 STACK NO.: 2 POINT NO.: 21 SEGMENT NO.: 1 SCC NO.: 3-08-006-99

	ANNUAL		PEAK OZONE SEASON (JUNE, JULY, AUGUST)	
THRUPUT (with units)	395,671 gallons			
NO. OPERATING DAYS	365 days		days	
NO. OPERATING HOURS PER DAY	24 hours		hours	
DAILY THRUPUT (with units) = Thruput) days	NA		per day	
HAP EMISSION FACTOR (with units) = EF	0.00002 lb/gal			
Emission Factor source[1] / Control Efficiency basis[2]	C	A		
HAP CONTROL DEVICE CODE[3]	131			
Avg. HAP CONTROL EFFICIENCY[4] = CE	99.3 %		%	
HAP (7440-47-3) EMISSIONS[5]	0.0034 tons per yr		lbs TNMOC per day	
HAP EMISSION FACTOR (with units) = EF	0.000002 lb/gal			
Emission Factor source[1] / Control Efficiency basis[2]	C	A		
HAP CONTROL DEVICE CODE[3]	131			
Avg. HAP CONTROL EFFICIENCY[4] = CE	99.3 %		%	
HAP (Glycol Ethers) EMISSIONS[5]	0.0003 tons per yr		tons per yr	
HAP EMISSION FACTOR (with units) = EF	0.00004 lb/gal			
Emission Factor source[1] / Control Efficiency basis[2]	C	A		
HAP CONTROL DEVICE CODE[3]	131			
Avg. HAP CONTROL EFFICIENCY[4] = CE	99.3 %		%	
HAP (000108-05-4) EMISSIONS[5]	0.0077 tons per yr		lbs per day	
HAP EMISSION FACTOR (with units) = EF				
Emission Factor source[1] / Control Efficiency basis[2]	C			
HAP CONTROL DEVICE CODE[3]				
Avg. HAP CONTROL EFFICIENCY[4] = CE	%		%	
HAP () EMISSIONS[5]	tons per yr		lbs per day	
HAP Emission Factor (with units) = EF				
Emission Factor source[1] / Control Efficiency basis[2]				
HAP CONTROL DEVICE CODE[3]				
Avg. HAP CONTROL EFFICIENCY[4] = CE	%		%	
HAP () EMISSIONS[5]	tons per yr		lbs per day	

7. AP-42; CEMS; ST = Stack test; F = Federal factor (EPA standard factor); O = Other (describe on separate sheet; use subject to DEQ approval)
8. A = Tested (by EPA Reference Method); B = Tested (other); C = Material Balance; D = Design; O = Other (describe on separate sheet)
9. See 3-digit control device codes listed in appendix.
4. Note control efficiency will be zero if there is no control device OR the emission factor accounts for controls (i.e. EF is identified to be "with controls").
5. Annual Emissions = ANNUAL THRUPUT x EF x FP x (1/2000) x (100-CE)/100 ; Ozone Emissions = DAILY THRUPUT x EF x FP x (100-CE)/100

2013 4MISSION CALCULATIONS
OPTION I: EMISSION FACTOR METHOD (continued)

STACK NUMBER: *No change to stack information* ***REGISTRATION #:*** *20763*

	ANNUAL
STACK HEIGHT (ft)	
STACK DIAMETER (ft)	
EXIT GAS TEMPERATURE (E F)	
EXIT GAS VELOCITY (ft per second)	
ELEVATION (ft above sea level)	
GAS FLOW RATE (cu.ft per minute)	

Blacksburg 2014 Emissions Summary

Emission Source	Pollutant Emissions (tpy)						
	VOC	NO_x	SO_2	PM	Pb	CO	NH_3
CL2	0.22	–	–	–	–	–	–
CL4	6.91	–	–	–	–	–	–
Tanks	0.10	–	–	–	–	–	–
Natural Gas Usage	0.184	3.345	0.020	0.25	0.00002	2.81	0.11
Facility Total	**7.41**	**3.35**	**0.02**	**0.25**	**0.00002**	**2.81**	**0.11**

Ozone Season Emissions Summary

Emission Source	Pollutant Emissions (lb/day)[1]	
	VOC	NO_x
CL2	1.09	–
CL4	38.04	–
Tanks	0.54	–
Natural Gas Usage	1.01	18.33
Facility Total	**40.68**	**18.33**

1. Ozone season emissions for Lines 2 and 4 were calculated by dividing the emissions during June, July and August by the number of days in June, July and August.

Calculations to be included w/ packet

Blacksburg Actual HAP Emissions Summary

Pollutant Name	2014 Actual Emissions (tpy)				
	CL2	CL4	Tanks	Natural Gas Combustion	Facility Total
Arsenic			--	6.69E-06	6.69E-06
Benzene			--	7.03E-05	7.03E-05
Beryllium			--	4.01E-07	4.01E-07
Cadmium			--	3.68E-05	3.68E-05
Chromium		3.40E-03	--	4.68E-05	3.45E-03
Cobalt			--	2.81E-06	2.81E-06
Cresol			--	--	0.00E+00
Diethanolamine			--	--	0.00E+00
N,N-Dimethyl Formamide	3.00E-04	1.93E-02	--	--	1.96E-02
Formaldehyde			--	5.19E-03	5.19E-03
Glycol Ethers		3.00E-04	--	--	3.00E-04
Hexane	6.00E-04	9.68E-02	--	6.02E-02	1.58E-01
Lead			--	1.67E-05	1.67E-05
Manganese			--	1.27E-05	1.27E-05
Mercury			--	8.70E-06	8.70E-06
MIBK	1.20E-02	7.01E-01	1.34E-02	--	7.26E-01
Naphthalene			--	2.04E-05	2.04E-05
Nickel			--	7.03E-05	7.03E-05
Phenol	3.00E-03	1.00E-03	--	--	4.00E-03
POM			--	2.93E-06	2.93E-06
Selenium			--	8.03E-07	8.03E-07
Toluene	9.21E-02	3.91E+00	4.85E-02	1.14E-04	4.05E+00
Total	1.08E-01	4.73E+00	6.18E-02	6.58E-02	4.97E+00

Blacksburg Plant-wide Natural Gas Combustion Emissions Totals - Criteria Pollutants

Fuel Usage 66,908 Mscf/yr

Pollutant	Emission Factors ($lb/10^6$ scf)[2]	Emissions (lb/yr)	Emissions (tpy)
NOx	100	6,690.80	3.35
CO	84	5,620.27	2.81
SO_2	0.6	40.14	0.02
VOC	5.5	367.99	0.18
PM	7.6	508.50	0.25
Ammonia[1]	3.2	214.11	0.11

1. Emission factor from FIRE database (version 6.23)
2. Emission factors from AP-42 1.4 Natural Gas Combustion (July 1998): CO and NO_x (Table 1.4-1); SO_2, VOC, and PM (Table 1.4-2).

Blacksburg Plant-wide Natural Gas Combustion Emissions Totals - HAP/TAP

Fuel Usage **66,908** **Mscf/yr**

Pollutant	Emission Factor	Units	Source	Emissions (lb/yr)	Emissions (tpy)
Arsenic	2.0E-04	lb/10^6 scf	AP-42[3]	1.34E-02	6.69E-06
Benzene	2.1E-03	lb/10^6 scf	AP-42[2]	1.41E-01	7.03E-05
Beryllium	1.2E-05	lb/10^6 scf	AP-42[3]	8.03E-04	4.01E-07
Cadmium	1.1E-03	lb/10^6 scf	AP-42[3]	7.36E-02	3.68E-05
Chromium	1.4E-03	lb/10^6 scf	AP-42[3]	9.37E-02	4.68E-05
Cobalt	8.4E-05	lb/10^6 scf	AP-42[3]	5.62E-03	2.81E-06
Formaldehyde	1.6E-01	lb/10^6 scf	SARA 313[5]	1.04E+01	5.19E-03
Hexane	1.8E+00	lb/10^6 scf	AP-42[2]	1.20E+02	6.02E-02
Lead	5.0E-04	lb/10^6 scf	AP-42[1]	3.35E-02	1.67E-05
Manganese	3.8E-04	lb/10^6 scf	AP-42[3]	2.54E-02	1.27E-05
Mercury	2.6E-04	lb/10^6 scf	AP-42[3]	1.74E-02	8.70E-06
Naphthalene	6.1E-04	lb/10^6 scf	AP-42[2]	4.08E-02	2.04E-05
Nickel	2.1E-03	lb/10^6 scf	AP-42[3]	1.41E-01	7.03E-05
POM[4]	8.8E-05	lb/10^6 scf	AP-42[6]	5.86E-03	2.93E-06
Selenium	2.4E-05	lb/10^6 scf	AP-42[3]	1.61E-03	8.03E-07
Toluene	3.4E-03	lb/10^6 scf	AP-42[2]	2.27E-01	1.14E-04

1. Table 1.4-2 *Emission Factors for Criteria Pollutants and Greenhouse Gases from Natural Gas Combustion* (July 1998).

2. Table 1.4-3 *Emission Factors for Speciated Organic Compounds from Natural Gas Combustion* (July 1998).

3. Table 1.4-4 *Emission Factors for Metals from Natural Gas Combustion* (July 1998).

4. Polycyclic Organic Matter includes Acenaphthene, Acenaphthylene, Anthracene, Benz(a)anthracene, Benzo(a)pyrene, Benzo(b,k)fluoranthene, Benzo(g,h,I)perylene, Chrysene, Dibenzo(a,h)anthracene, Fluoranthene, Fluorene, Indo(1,2,3-cd)pyrene, Phenanthrene

5. Table 3-11 *Emission Factors and Triggering Thresholds for Formaldehyde Manufactured During Combustion*, EPCRA - Section 313: Electricity Generating Facilities (February 2000) EPA-745-B-00-004.

6. Table 1.4-3 *Emission Factors for Speciated Organic Compounds from Natural Gas Combustion* (July 1998) for POM and PAC, and PAC Final Guidance (EPA, 2001) for Benzo(g,h,I)perylene.

Blacksburg Tanks		1	2	3	4
Identification	ID	6-1	6-2	6-3	6-4
	State	Virginia	Virginia	Virginia	Virginia
	City	Blacksburg	Blacksburg	Blacksburg	Blacksburg
	Company	Wolverine	Wolverine	Wolverine	Wolverine
	Type	Vertical Fixed	Vertical Fixed	Vertical Fixed	Vertical Fixed
Physical Characteristics	Tank Characteristics				
	Shell Height (ft)	18.00	13.20	13.20	17.59
	Diameter (ft)	9.87	7.90	7.90	5.29
	Maximum Liquid Height (ft)	14	9	9	11
	Average Liquid Height (ft)	9	7	7	9
	Working Volume	**	**	**	**
	Turnovers per year	**	**	**	**
	Net Throughput (gal)	146,311	35,758	7,792	0
	Is Tank Heated?	No	No	No	No
	Shell Characteristics				
	Color	White/White	White/White	White/White	White/White
	Condition	Good	Good	Good	Good
	Roof Characteristics				
	Color	White/White	White/White	White/White	White/White
	Condition	Good	Good	Good	Good
	Type	Dome	Dome	Dome	Dome
	Height (ft)	0.75	0.75	0.75	0.75
	Diameter (ft)	9.87	7.90	7.90	5.29
	Breather Vent Settings				
	Vacuum Settings (psig)	-0.03	-0.03	-0.03	-0.03
	Pressure Settings (psig)	0.5	0.5	0.5	0.5
Site Selection	Nearest Major City	Roanoke, VA	Roanoke, VA	Roanoke, VA	Roanoke, VA
Tank Contents	Category of Liquid	Organic	Organic	Organic	Organic
	Single or Multi	Single	Single	Single	Single
	Chemical Name	Toluene	MEK	DIBK	MIBK
Emissions	Working Losses (lbs)**	83.46	40.82	0.54	24.48
	Breathing Losses (lbs)**	13.49	30.57	0.32	2.26
	Total Emissions (lb/yr)	96.95	71.39	0.86	26.74
	Total Emissions (tpy)	4.85E-02	3.57E-02	4.30E-04	1.34E-02

** Calculated from TANKS 4.0.9d

APPENDIX B

U.S. Environmental Protection Agency
Applicability Determination Index

Control Number: 0400019

Category: NSPS
EPA Office: Region 3
Date: 05/17/2004
Title: Streamlining NSPS Subpart TT and NESHAP Subpart SSSS
Recipient: David Robinson
Author: Bernard Turlinski
Comments: See related MACT determination filed as ADI Control No. M040025.

Subparts: Part 60, TT, Metal Coil Surface Coating

References: 60.462
60.460

Abstract:

Q: If a facility operated by Eagle-Picher is subject to the metal coil surface coating requirements of both 40 CFR part 63, subpart SSSS and 40 CFR part 60, subpart TT and uses thermal incinerators or catalytic oxidizers to comply, would EPA find streamlining of the monitoring requirements under these two standards acceptable?

A: Yes. EPA concludes that for facilities using thermal incinerators, the MACT subpart SSSS effluent gas monitoring requirements may be streamlined with the similar subpart TT monitoring requirements. Also, EPA determines that for facilities using catalytic oxidizers, either of the MACT subpart SSSS monitoring requirements may be streamlined with the NSPS subpart TT monitoring requirements.

Letter:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Mr. David Robinson 5/17/2004 Plant Manager Eagle-Picher Automotive Wolverine Gasket Division 3175 State Street Blacksburg, Virginia 24060

Dear Mr. Robinson:

This is in response to your letter of January 6, 2004 to EPA's Office of Compliance in Washington, DC requesting an EPA determination that specified emission control requirements applicable to the Eagle-Picher facility in Blacksburg, Virginia (the Facility) under the National Emission Standard for Hazardous Air Pollutants for Surface Coating of Metal Coil, 40 CFR 63, Subpart SSSS (NESHAP SSSS) are at least as stringent as the emission control requirements of the New Source Performance Standard for Metal Coil Coating, 40 CFR 60, Subpart TT (NSPS TT). EPA Region III is responding to your request as this is appropriate under the division of responsibilities between EPA's national HQ and its Regions, given the details of your request.

You explain that Eagle-Picher Automotive desires this determination to support a request to the Commonwealth of Virginia for streamlining of the facility's Title V permit requirements for demonstrating continuous compliance with NESHAP SSSS with the facility's Title V permit requirements for demonstrating continuous compliance with NSPS TT. You note that EPA's White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program, dated March 5, 1996, permits streamlining of requirements by having less stringent requirements subsumed by more stringent ones.

You report that the Facility has coating lines with emissions controlled by thermal incinerators or catalytic oxidizers. You further report that these coating lines are the affected source under NESHAP Subpart SSSS and the affected facility under NSPS Subpart TT, and that "the affected source as defined in NESHAP SSSS includes all of the affected facilities in NSPS TT." Your specific request is that EPA determine "that the standards in NESHAP Subpart SSSS for coil coating lines complying with the emission standards in Sec. 63.5120(a)(1) or (3) by using a control device and demonstrating initial compliance by testing for total VOCs as specified in Sec. 63.5160 are at least as stringent as the standards in NSPS Subpart TT."

You also state that you assume that if EPA agrees that the NESHAP standards in Sec. 63.5120(a)(1) or (3) are at least as stringent as those in NSPS Subpart TT then EPA would also agree that "the requirements to demonstrate continuous compliance with the standards in NESHAP Subpart SSSS should also satisfy the standards in NSPS Subpart TT."

Facilities complying with NESHAP SSSS Sec. 63.5120 by using thermal incinerators or catalytic oxidizers are required to either achieve a 98% emission reduction of the organic HAP applied, as specified at Sec. 63.5120(a)(1), or to meet other equivalent control

requirements, as specified at Sec. 63.5120(a)(2) or (3). Facilities continuously complying with NSPS TT Sec. 60.462 by using thermal incinerators or catalytic oxidizers are required to either achieve a 90% reduction of the VOCs applied, as specified at Sec. 60.462(3), or to meet equivalent limits, as specified at Sec. 60.462(2). Under both NESHAP SSSS and NSPS TT emissions and destruction efficiency for facilities using add-on controls on a continuous basis are determined by a performance test measuring total VOCs. Given that under NESHAP SSSS HAP emissions and destruction efficiency are not determined by direct measurement of the HAPS themselves, but instead by measurement of total VOCs, the NESHAP's 98% HAP destruction efficiency requirements are also effectively 98% VOC destruction efficiency requirements. Accordingly, EPA agrees that facilities complying with the HAP control requirements of NESHAP SSSS on a continuous basis by using thermal incinerators or catalytic oxidizers would also be in compliance with the VOC control requirements of NSPS TT.

Both NESHAP SSSS and/or NSPS TT specify that facilities complying by using thermal incinerators may demonstrate compliance on a continuous basis by monitoring effluent gas temperature. Therefore, EPA agrees that for facilities using thermal incinerators the NESHAP SSSS effluent gas temperature monitoring requirements may be streamlined with the similar NSPS TT monitoring requirements.

Both NESHAP SSSS and NSPS TT provide that sources complying by using catalytic incinerators may show compliance on a continuous basis by monitoring temperature change across the catalyst bed. NESHAP SSSS also provides that an acceptable alternative to monitoring temperature change across the catalyst bed is to monitor temperature at the inlet to the catalyst bed and to implement a site-specific inspection and maintenance plan for the catalytic oxidizer. Given these facts, EPA agrees that for facilities using catalytic oxidizers either of the NESHAP SSSS monitoring requirements may be streamlined with the NSPS TT monitoring requirements.

It should be noted, that while the streamlining of applicable requirements in the Facility's Title V permit provides administrative efficiency and clarity, the underlying requirements of NSPS subpart TT and NESHAP subpart SSSS continue to apply independently.

If you have any questions, please contact Ray Chalmers at 215-814-2061.

Sincerely,

Original signed by:

Bernard E. Turlinski, Associate Director Office of Enforcement and Permits Review Air Protection Division

cc: John Daniel, Director
Air Program Coordination
Virginia Department of Environmental Quality

Heather Jackson
Virginia Department of Environmental Quality
West Central Regional Office

U.S. Environmental Protection Agency
Applicability Determination Index

Control Number: M040025

Category: MACT
EPA Office: Region 3
Date: 05/17/2004
Title: Streamlining NSPS Subpart TT and NESHAP Subpart SSSS
Recipient: David Robinson
Author: Bernard Turlinski
Comments: See related NSPS determination filed as ADI Control No. 0400019.

Subparts: Part 63, SSSS, Surface Coating of Metal Coil

References: 63.5080
63.5120(a)
63.5160

Abstract:

Q: If a facility is subject to the metal coil surface coating requirements of both 40 CFR part 63, subpart SSSS and 40 CFR part 60, subpart TT, and uses thermal incinerators or catalytic oxidizers to comply, would EPA find streamlining of these two monitoring requirements acceptable?

A: Yes. EPA concludes that for facilities using thermal incinerators, the MACT subpart SSSS effluent gas monitoring requirements may be streamlined with the similar subpart TT monitoring requirements. Also, EPA determines that for facilities using catalytic oxidizers, either of the MACT subpart SSSS monitoring requirements may be streamlined with the NSPS subpart TT monitoring requirements.

Letter:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Mr. David Robinson 5/17/2004 Plant Manager Eagle-Picher Automotive Wolverine Gasket Division 3175 State Street Blacksburg, Virginia 24060

Dear Mr. Robinson:

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You explain that Eagle-Picher Automotive desires this determination to support a request to the Commonwealth of Virginia for streamlining of the facility's Title V permit requirements for demonstrating continuous compliance with NESHAP SSSS with the facility's Title V permit requirements for demonstrating continuous compliance with NSPS TT. You note that EPA's White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program, dated March 5, 1996, permits streamlining of requirements by having less stringent requirements subsumed by more stringent ones.

You report that the Facility has coating lines with emissions controlled by thermal incinerators or catalytic oxidizers. You further report that these coating lines are the affected source under NESHAP Subpart SSSS and the affected facility under NSPS Subpart TT, and that "the affected source as defined in NESHAP SSSS includes all of the affected facilities in NSPS TT." Your specific request is that EPA determine "that the standards in NESHAP Subpart SSSS for coil coating lines complying with the emission standards in Sec. 63.5120(a)(1) or (3) by using a control device and demonstrating initial compliance by testing for total VOCs as specified in Sec. 63.5160 are at least as stringent as the standards in NSPS Subpart TT."

You also state that you assume that if EPA agrees that the NESHAP standards in Sec. 63.5120(a)(1) or (3) are at least as stringent as those in NSPS Subpart TT then EPA would also agree that "the requirements to demonstrate continuous compliance with the standards in NESHAP Subpart SSSS should also satisfy the standards in NSPS Subpart TT."

Facilities complying with NESHAP SSSS Sec. 63.5120 by using thermal incinerators or catalytic oxidizers are required to either achieve a 98% emission reduction of the organic HAP applied, as specified at Sec. 63.5120(a)(1), or to meet other equivalent control

requirements, as specified at Sec. 63.5120(a)(2) or (3). Facilities continuously complying with NSPS TT Sec. 60.462 by using thermal incinerators or catalytic oxidizers are required to either achieve a 90% reduction of the VOCs applied, as specified at Sec. 60.462(3), or to meet equivalent limits, as specified at Sec. 60.462(2). Under both NESHAP SSSS and NSPS TT emissions and destruction efficiency for facilities using add-on controls on a continuous basis are determined by a performance test measuring total VOCs. Given that under NESHAP SSSS HAP emissions and destruction efficiency are not determined by direct measurement of the HAPS themselves, but instead by measurement of total VOCs, the NESHAP's 98% HAP destruction efficiency requirements are also effectively 98% VOC destruction efficiency requirements. Accordingly, EPA agrees that facilities complying with the HAP control requirements of NESHAP SSSS on a continuous basis by using thermal incinerators or catalytic oxidizers would also be in compliance with the VOC control requirements of NSPS TT.

Both NESHAP SSSS and/or NSPS TT specify that facilities complying by using thermal incinerators may demonstrate compliance on a continuous basis by monitoring effluent gas temperature. Therefore, EPA agrees that for facilities using thermal incinerators the NESHAP SSSS effluent gas temperature monitoring requirements may be streamlined with the similar NSPS TT monitoring requirements.

Both NESHAP SSSS and NSPS TT provide that sources complying by using catalytic incinerators may show compliance on a continuous basis by monitoring temperature change across the catalyst bed. NESHAP SSSS also provides that an acceptable alternative to monitoring temperature change across the catalyst bed is to monitor temperature at the inlet to the catalyst bed and to implement a site-specific inspection and maintenance plan for the catalytic oxidizer. Given these facts, EPA agrees that for facilities using catalytic oxidizers either of the NESHAP SSSS monitoring requirements may be streamlined with the NSPS TT monitoring requirements.

It should be noted, that while the streamlining of applicable requirements in the Facility's Title V permit provides administrative efficiency and clarity, the underlying requirements of NSPS subpart TT and NESHAP subpart SSSS continue to apply independently.

If you have any questions, please contact Ray Chalmers at 215-814-2061.

Sincerely,

Original signed by:

Bernard E. Turlinski, Associate Director Office of Enforcement and Permits Review Air Protection Division

cc: John Daniel, Director
Air Program Coordination
Virginia Department of Environmental Quality

Heather Jackson
Virginia Department of Environmental Quality
West Central Regional Office

APPENDIX C

#20763

BLACKSBURG COMPLIANCE PLAN
WOLVERINE ADVANCED MATERIALS

TITLE V OPERATING PERMIT VA-20763 &
METAL COIL MACT – 40 CFR 63 SUBPART SSSS

BLACKSBURG PLANT

Prepared by:

WOLVERINE ADVANCED MATERIALS
201 Industrial Park Road S.E.
Blacksburg, VA 24060
(540) 557-2240

TRINITY CONSULTANTS
5821 Fairview Road
Suite 400
Charlotte, NC 28209
(704) 553-7747

Project 033402.0038

Trinity Consultants

Wolverine ADVANCED MATERIALS

TABLE OF CONTENTS

1. INTRODUCTION

1.1 BACKGROUND

Wolverine Advanced Materials (WAM) operates a metal coil coating operation at their facility, located in Blacksburg, Virginia (Blacksburg facility). Due to potential emissions of hazardous air pollutants (HAPs) being over 10 tons per year (tpy) for several individual HAPs and 25 tpy for combined HAPs, the Blacksburg facility is considered a major source of HAPs. Further, as a major source of HAPs, WAM is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating of Metal Coils, which is detailed in Title 40, Part 63, Subpart SSSS of the Code of Federal Regulations (40 CFR 63 Subpart SSSS). Typically, NESHAP regulations are also referred to as Maximum Achievable Control Technology (MACT) standards.

The Blacksburg facility is a major source of HAPs and also has potential emissions of total volatile organic compounds (VOCs) over the Title V major source threshold for criteria pollutants of 100 tpy. Therefore, the Blacksburg facility is subject to the Title V operating permit program, which is administered by the Virginia Department of Environmental Quality (VDEQ). The Blacksburg facility is currently operating under Title V Permit VA-20763, which was issued by the VDEQ with an effective date of November 22, 2004.

1.2 PURPOSE

Under the Operation and Maintenance requirements of the MACT General Provisions (40 CFR 63, Subpart A) and the Metal Coil MACT (40 CFR 63, Subpart SSSS), WAM is required to develop and implement three different administrative compliance plans for the two coil coating lines (CL2 and CL4) at the Blacksburg facility, as outlined below:

1. Capture System Monitoring Plan (CSMP);
2. Temperature Indicator Maintenance Plan (TIMP); and
3. Startup, Shutdown, and Malfunction Plan (SSMP or SSM Plan).

This consolidated binder provides an overview of the Metal Coil MACT (as it applies to the Blacksburg facility) and contains copies of previous versions of the three administrative plans identified above. WAM also uses this binder to store selected MACT and Title V related records. The development and implementation of this consolidated CSMP, TIMP and SSMP for CL2 and CL4 meets the requirements of the Metal Coil MACT and the current Title V permit.

1.3 METAL COIL COATING OPERATION DETAILS

At the Blacksburg plant, two metal coil coating lines are used (CL2 and CL4) to coat metal coils with rubber coatings, graphite coatings, and/or adhesives. The coating lines consist of coating application stations and associated curing ovens. Specifically, coil coating line 2 (CL2) includes a totally enclosed primer area, where the sheet of metal is coated with primer on one side. The metal coil then moves through a single rubber coating application station. Rubber material is applied to the primer side of the metal. CL4 is the newer of the two coil coating lines operated at the Blacksburg facility. CL4 includes a primer area and two rubber coating application stations that are all totally enclosed. In addition, CL4 also has a second combined application area that can be used to apply adhesive and/or graphite coating to the metal coil.

CL2 and CL4 were both installed prior to the proposal date of the Metal Coil MACT, which was July 18, 2000. Therefore, they are considered by the VDEQ to be existing sources with regards to the Metal Coil MACT, with a compliance date of June 10, 2005. There is a single control device [the MegTec Regenerative Thermal Oxidizer (RTO)] that used to destroy VOC and HAP emissions resulting from the solvents present in the coatings used on both lines.

Appendix A contains process flow diagrams that visually describe the layout of both CL2 and CL4.

1.4 COMPLIANCE PLAN ORGANIZATION

To ease future updates and recordkeeping requirements, this compliance plan is organized as follows:

Section 2: *Overview of the Metal Coil MACT* – This section summarizes the requirements of the Metal Coil MACT standard as it applies to the Blacksburg facility.

Section 3: *Temperature Indicator Maintenance Plan* – This section provides a current copy of the maintenance procedures used on both CL2 and CL4 to ensure control device temperature readings are accurate.

Section 4: *Capture System Monitoring Plan* – This section provides a current copy of the monitoring plan in place for the CL2 and CL4 capture systems.

Section 5: *Startup Shutdown and Malfunction Plan* – This section provides a current version of the SSM procedures that apply to the control device and capture systems used on CL2 and CL4.

The background documents supporting the compliance plans are organized in the following appendices:

Appendix A: *Process Flow Diagrams* – A visual layout of the process and control device associated with the Blacksburg facility is shown in the diagrams of this appendix.

Appendix B: *Sample Work Order System Documents* – Copies of the checklists and maintenance activities prompted by the Blacksburg work order system and referenced throughout this binder are shown in this appendix.

Appendix C: Control Device Owner's Manuals – A copy of the referenced RTO owner's manual is stored in this appendix.

Appendix D: SSMP Checklist Records – SSMP checklists filled out by the line operators are copied and stored in this appendix.

Appendix E: Previous Versions of Compliance Plan – Previous versions of each of the three plans discussed in Sections 3 through 5 (going back five years) are maintained in this appendix to comply with recordkeeping requirements.

2. METAL COIL MACT OVERVIEW

40 CFR 63 Subpart SSSS, which is referred to as the Metal Coil Surface Coating NESHAP or Metal Coil MACT, describes the actions subject sources must take to reduce emissions of HAP from their operations. The provisions of the Metal Coil MACT apply to the WAM Blacksburg facility, as discussed throughout this section. CL2 and CL4 are the two operations at the Blacksburg facility that are subject to specific requirements. For existing affected sources, such as CL2 and CL4, the compliance date is 3 years after June 10, 2002 or June 10, 2005.

The initial compliance period for the Blacksburg coating lines begins on the applicable compliance date discussed above and ends on the last day of the twelfth month following the compliance date. Therefore, the initial compliance period for CL2 and CL4 runs from June 10, 2005 through June 30, 2006. For the purpose of demonstrating continuous compliance, a compliance period consists of 12 months. Each month after the end of the initial compliance period is the end of a compliance period consisting of that month and the preceding 11 months.

WAM is required to be in compliance with the standards of the Metal Coil MACT for CL2 and CL4 at all times, except during periods of start-up, shutdown, and malfunction of any capture system or control device. Section 5 of this report contains WAM's current SSM Plan for the control device and capture systems used on CL2 and CL4 coating lines.

The Metal Coil MACT requires that WAM limit organic HAP emissions from both CL2 and CL4 using one of the three methods outlined below:

1. No more than 2 percent of the organic HAP applied for each month during each 12-month compliance period (98 percent 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. Use an oxidizer to control organic HAP emissions and 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, WAM is complying with the Metal Coil MACT for CL2 and CL4 using Option 1 – by reducing overall VOC and organic HAP by 98 percent using total enclosures that can be assumed to achieve 100% capture efficiency and routing all exhaust to a control device that can achieve 98% control. WAM demonstrated that the overall organic HAP control efficiency was at least 98 percent during initial performance testing and must now demonstrate that the operating limits set during testing (i.e., control device temperatures) are achieved continuously. Under this control option, WAM also needs to continuously maintain the pressure drop across each capture system (enclosure) as specified in the CSMP of Section 4. If WAM ever chooses to switch between compliance options for their coil coating lines, they must document the switch and subsequently report it in the next semiannual compliance report.

2.1 CONTROL DEVICE TESTING REQUIREMENTS

WAM was required to conduct a performance test to establish the destruction or removal efficiency of the single RTO used on both lines and to verify that their capture systems can be assumed to have 100% capture efficiency. During this performance test, an operating limit for the RTO combustion chamber temperature was established and the pressure drop across each enclosure was verified. Initial performance testing was conducted at the RTO inlet and outlet simultaneously. The performance test consisted of at least three separate runs, and each run was conducted for at least one hour under normal operating conditions. Volatile organic matter concentrations and mass flow rates were calculated from the average of the results of all three runs. The control device destruction or removal efficiency was determined as the average of the efficiencies determined in the three test runs. It should be noted that under the Metal Coil MACT, WAM was permitted to test for VOC as a surrogate for HAP control.

2.2 CONTROL DEVICE AND CAPTURE SYSTEM MONITORING REQUIREMENTS

In addition to the initial performance test, WAM is also required to monitor and inspect each capture system and each control device after the initial performance test was completed to demonstrate continuous compliance with the 98% control requirement. WAM is also required to complete the monitoring described below for its control devices and capture systems. Any deviation from the required operating parameters (i.e. control device temperatures and pressure drop across the enclosures), unless otherwise excused, will be considered a deviation from the operating limit. The required monitoring for control devices and capture systems under the Metal Coil MACT can be summarized as follows:

- Install, calibrate, maintain, and operate temperature monitoring equipment according to manufacturer's 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. Each temperature monitoring device must be equipped with a continuous recorder and have an accuracy of 1 percent of the temperature being monitored in degrees C, or 1 °C, whichever is greater.
- For the Blacksburg RTO, the combustion chamber temperature must be continuously recorded from inside the firebox of the oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs. The average (highest) combustion temperature observed during the initial compliance test is the minimum operating limit for the RTO.
- For the CL2 and CL4 capture systems or total enclosures, WAM must also develop and implement a capture system monitoring plan and make the monitoring plan available for inspection by the VDEQ upon request. Under this plan, WAM is required to monitor and record the pressure drop across the enclosure to ensure that it remains above the criteria for a permanent total enclosure (PTE) established in Section 6 of EPA Method 204 of 40 CFR 51, Appendix M, which is equal to 0.007 inches of water.

2.3 REPORTING REQUIREMENTS

WAM was required to submit an initial notification for the Blacksburg facility, which is considered an existing source. WAM submitted the initial notification for CL2 and CL4 to the VDEQ on June xx, 2004. WAM was also required to submit a Notification of Performance Test (NPT) for each coating line, as specified in 40 CFR 63.7 and 63.9(e). WAM submitted a NPT to the VDEQ for CL2 and CL4 on April xx, 2005.

WAM must submit a Notification of Compliance Status (NCS) for CL2 and CL4 as specified in 40 CFR 63.9(h). NCS reports must be submitted no later than 30 calendar days following the end of the initial 12-month compliance period. WAM will submit an NCS for the Blacksburg facility in 2006 after the initial 12-month compliance ends.

WAM is also required to submit start-up, shutdown, and malfunction reports for both CL2 and CL4 as specified in 40 CFR 63.10(d)(5), which are discussed in Section 5 of this binder.

For each calendar year half, January 1st through June 30th, and July 1st through December 31st, following the initial compliance period, WAM is required to submit a Metal Coil MACT semi-annual compliance report that contains the following information:

- Company name and address.
- Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.
- Date of report and beginning and ending dates of the reporting period.
- Identification of the compliance option or options that were used on each coating operation during the reporting period. If WAM switches between compliance options during the reporting period, they must report the beginning dates each option was used.
- A statement that there were no deviations from the standards during the reporting period, except those discussed in the compliance report.
- The total operating time of each affected source during the reporting period.
- Information on the number, duration, and cause of deviations (including unknown cause, if applicable) as applicable, and the corrective action taken.
- Information on the number, duration, and cause for monitor downtime incidents.

2.4 RECORDS

Records of each compliance option that was used and the time periods (beginning and ending dates and times) each option was used on the two Blacksburg facility coating lines must be maintained. Records specified in 40 CFR 63.10(b)(2) of all measurements needed to demonstrate compliance with the Metal Coil MACT include:

- Control device and capture system operating parameter data (i.e., temperature and pressure drop data);
- Overall control efficiency determination using capture efficiency tests and control device destruction or removal efficiency tests;

- Records specified in 40 CFR 63.10(b)(3); and
- Additional records specified in 40 CFR 63.10(c) for each continuous monitoring system operated by the owner or operator in accordance with 40 CFR 63.5150(a)(2).

2.5 METAL COIL MACT RELATED DEFINITIONS

The following terms are used throughout this consolidated binder. These definitions are based on the definitions contained in 40 CFR Part 63, Subpart A and Subpart SSSS.

Affected Source means the collection of all of the coil coating lines at the facility.

Always-Controlled Work Station means a work station associated with a curing oven from which the curing oven exhaust is delivered to a control device with no provision for the oven exhaust to bypass the control device. Sampling lines for analyzers and relief valves needed for safety purposes are not considered bypass lines.

Capture Efficiency means the fraction of all organic HAP emissions generated by a process that is delivered to a control device, expressed as a percentage.

Capture System means a hood, enclosed room, or other means of collecting organic HAP emissions and conveying them to a control device.

Coating means material applied onto or impregnated into a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealants, inks, adhesives, maskants, and temporary coatings. Decorative, protective, or functional materials that consist only of solvents, protective oils, acids, bases, or any combination of these substances are not considered coatings for the purposes of this subpart.

Coating Material means the coating and other products (e.g., a catalyst and resin in multi-component coatings) combined to make a single material at the coating facility that is applied to metal coil. For the purposes of this subpart, an organic solvent that is used to thin a coating prior to application to the metal coil is considered a coating material.

Coil Coating Line means a process and the collection of equipment used to apply an organic coating to the surface of metal coil. A coil coating line includes a web unwind or feed section, a series of one or more work stations, any associated curing oven, wet section, and quench station. A coil coating line does not include ancillary operations such as mixing/thinning, cleaning, wastewater treatment, and storage of coating material.

Continuous Parameter Monitoring System means the total equipment that may be required to meet the data acquisition and availability requirements of Metal Coil MACT, used to sample, condition, analyze, and provide a record of process or control system parameters.

Control Device means a device such as a solvent recovery device or oxidizer which reduces the organic HAP in an exhaust gas by recovery or by destruction.

Control Device Efficiency means the ratio of organic HAP emissions recovered or destroyed by a control device to the total organic HAP emissions that are introduced into the control device, expressed as a percentage.

Curing Oven means the device that uses heat or radiation to dry or cure the coating material applied to the metal coil.

Day means a 24-consecutive-hour period.

Deviation means any instance in which an affected source, subject to this subpart, or an owner or operator of such a source:

1. Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limitation (including any operating limit) or work practice standard;
2. Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
3. Fails to meet any emission limitation (including any operating limit) or work practice standard in this subpart during start-up, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Existing Affected Source means an affected source the construction of which commenced on or before July 18, 2000, and it has not subsequently undergone reconstruction as defined in Sec. 63.2.

Facility means all contiguous or adjoining property that is under common ownership or control, including properties that are separated only by a road or other public right-of-way.

HAP applied means the organic HAP content of all coating materials applied to a substrate by a coil coating line.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Metal Coil means a continuous metal strip that is at least 0.15 millimeter (0.006 inch) thick, which is packaged in a roll or coil prior to coating. After coating, it may or may not be rewound into a roll or coil. Metal coil does not include metal webs that are coated for use in flexible packaging.

Month means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

Never-Controlled Work Station means a work station which is not equipped with provisions by which any emissions, including those in the exhaust from any associated curing oven, may be delivered to a control device.

New Affected Source means an affected source the construction or reconstruction of which commenced after July 18, 2000.

Overall Organic HAP Control Efficiency means the total efficiency of a control system, determined by the product of the capture efficiency and the control device efficiency.

Permanent total enclosure (PTE) means a permanently installed enclosure that meets the criteria of Method 204 of appendix M, 40 CFR part 51 for a PTE, and that directs all the exhaust gases from the enclosure to a control device.

Protective Oil means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil

includes but is not limited to lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

Research or Laboratory Equipment means any equipment for which the primary purpose is to conduct research and development into new processes and products, where such equipment is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a *de minimis* manner.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Startup means the setting in operation of an affected source or portion of an affected source for any purpose.

Temporary Total Enclosure (TTE) means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source, as defined in Method 204 of 40 CFR part 51, appendix M.

Work Station means a unit on a coil coating line where coating material is deposited onto the metal coil substrate.

3. TEMPERATURE INDICATOR MONITORING PLAN

3.1 PURPOSE

The purpose of this plan is to ensure that at all times, the thermocouples installed on the Blacksburg RTO are working properly. This plan is currently required by Title V Permit VA-20763 and the Metal Coil MACT. Since WAM uses a capture system and control device to meet the emission standard of 98 percent reduction of organic HAP applied for each month that defines a new 12-month compliance period, the facility is required to establish a temperature limit for the RTO and ensure that the thermocouples used to measure this temperature are maintained in proper working order. WAM is required to make this temperature indicator monitoring plan (TIMP) available to the VDEQ upon request.

3.2 SCOPE

This TIMP includes the following elements as required by the Metal Coil MACT provisions:

- Install, calibrate, maintain, and operate temperature monitoring equipment according to manufacturer's 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.
- Each temperature monitoring device must be equipped with a continuous recorder and have an accuracy of 1 percent of the temperature being monitored in degrees C, or 1 °C, whichever is greater.
- For the Blacksburg RTO, the temperature should be recorded from inside the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs. The average combustion temperature observed during performance testing must be established as the minimum operating limit.

WAM's temperature monitoring equipment conforms to this TIMP to comply with the Metal Coil MACT, Title V Permit VA-20763, and to ensure that the RTO is operated at a temperature that is indicative of 98% control.

3.3 THERMOCOUPLE SPECIFICATIONS

The Blacksburg RTO has thermocouples located at the predetermined sampling locations established by the manufacturers of the control device. Specifically, there are three combustion chamber temperatures recorded from within the RTO:

1. Chamber temperature entering from Side One;
2. Chamber temperature entering from Side Two; and
3. Chamber temperature midway between Sides One and Two.

Each of the three thermocouples noted above are at a location that is consistent with the point specified by the Metal Coil MACT for this type of control device. WAM uses thermocouples that have an accuracy that is less than the 1 °C limit established in the Metal Coil MACT. Each thermocouple has a digital display and is connected to a data acquisition system.

3.4 CALIBRATION PROCEDURES

WAM utilizes a work order system to initiate the calibration of these three thermocouples on a quarterly basis. An example of the quarterly thermocouple calibration work order is shown is Appendix B of this binder. Any thermocouple that cannot be properly calibrated is immediately replaced. Several extra thermocouples are maintained in the spare parts inventory in case a replacement is needed.

3.5 TEMPERATURE OPERATING LIMITS

As part of the low-load performance testing conducted on the Blacksburg RTO on May 19, 2005, WAM monitored the three chamber temperatures of the RTO on a continuous basis. The highest chamber temperature observed amongst the three was recorded and averaged over the three runs. This resulted in a temperature limit for the RTO of 1,589 °F.

WAM continuously monitors and maintains the highest of the three chamber temperatures of the RTO at or above 1,589 °F when subject coating materials are being applied. WAM records and reports all instances when the temperature drops below the established limit, as part of the SSMP procedures in Section 5 of this binder.

4. CAPTURE SYSTEM MONITORING PLAN

4.1 PURPOSE

The purpose of this plan is to ensure that at all times, the capture systems installed on both of the Blacksburg coil coating lines (CL2 and CL4) are working properly. Since WAM uses a capture system and control device to meet the emission standard of 98 percent reduction of organic HAP applied for each month that defines a new 12-month compliance period, the facility is required to develop and implement a capture system monitoring plan (CSMP). This plan is currently required by Title V Permit VA-20763 and the Metal Coil MACT for CL2 and CL4. WAM is required to make this CSMP available for inspection by the VDEQ upon request.

4.2 SCOPE

This CSMP includes the following elements as required by the Metal Coil MACT provisions:

- Identification of operating parameters to be monitored to ensure the capture efficiency measured during the initial compliance test is maintained, and explanation of parameter appropriateness for demonstrating compliance [40 CFR 63.5150(a)(4)(i)]
- Identification of specific operating parameter monitoring procedures [40 CFR 63.5150(a)(4)(i)]
- Specification of operating limits at the capture system operating parameter value, or range of values that demonstrate organic HAP control [40 CFR 63.5150(a)(4)(ii)]
- Operating limits must represent conditions indicative of proper operation and maintenance of the capture system [40 CFR 63.5150(a)(4)(ii)]

WAM completes all capture system monitoring in accordance with this CSMP to comply with the Metal Coil MACT, Title V Permit VA-20763, and to ensure that all solvent (VOC) fumes are captured and treated by the control device(s) (oxidizer and/or incinerator). The primer application station, the three coating application stations, and the curing ovens associated with the CL4 coating line, are all designed and operated as total enclosures. Similarly, CL2 consists of a primer application station, a single coating application station, and associated curing ovens, which are designed and operated as total enclosures.

Since the curing ovens are upstream of and physically connected to the coating stations, pressure drop monitoring for the curing ovens is not necessary. Specifically, if the individual coating stations are being held under adequate negative pressure, it can be assumed that the ovens are also operating under adequate negative pressure. Therefore, this CSMP only addresses the four enclosures used on CL4 (two rubber coating stations, one adhesive station, and the primer station) and the two enclosures used on CL2 (one coating station and the primer station). This is a total of six enclosures at the Blacksburg facility that must be monitored in accordance with this CSMP.

4.3 OPERATING PARAMETER MONITORING

As stated in the Metal Coil MACT, 40 CFR 63.5160(e), sources can assume that their total enclosures have 100% capture efficiency, once they confirm that each capture system can be considered a permanent total enclosure (PTE) in accordance with Section 6 of EPA Method 204 of 40 CFR 51, Appendix M. Method 204 essentially requires that the average facial velocity (FV) of air through all natural draft openings be at least 3,600 meters per hour (200 feet per minute). Facilities are required to measure the average FV during compliance testing. Alternatively, facilities are permitted to measure the pressure differential across the enclosure. A pressure drop of 0.013 millimeters of mercury (0.007 inches of water) corresponds to a FV of 200 feet per minute.

Since monitoring the flowrate across the enclosure opening is difficult to do on a continuous basis, WAM has chosen pressure drop across each enclosure as the operating parameter for continuous monitoring at the Blacksburg facility. WAM monitors the pressure drop across each of the six enclosures associated with CL2 and CL4. The initial compliance test, completed on May 19, 2005, confirmed that the pressure drop across the six enclosures was above 0.007 inches of water, and can be assumed to have 100% capture efficiency.

4.4 MONITORING PROCEDURES

WAM is utilizing Model No. RPM-1-A-01E Modus pressure transducers on each of the six enclosures associated with CL2 and CL4. The pressure transducers are equipped with digital readouts that are easily accessible by the line operators. Each of the enclosures are also equipped with a visible red light that illuminates anytime the pressure drop falls below the established operating limit of 0.007 inches of water. The line operators record the pressure drop reading at each enclosure once per shift in a logbook. Operators are trained to record each period of time when the pressure drop falls below the established limit, except for periods when the operator access doors are open. As agreed upon with the VDEQ, WAM also records any period of time when the access doors need to remain open for more than a ten-minute period. Section 5 of this binder, which discusses startup, shutdown and malfunction procedures, provides details of the actions WAM takes if the access doors need to remain open for longer than a ten-minute period, or if the pressure drop can not be maintained above 0.007 inches of water with the access windows closed.

The access windows remain closed during normal routine operation and are only opened for brief periods when line adjustments need to be made by the operators for quality or safety reasons, as allowed by numerous surface coating MACT standards and New Source Performance Standards. All line operators have been trained such that these periods are to be kept to a minimum in both frequency and duration, and that failure to comply with this CMSP may result in disciplinary action up to and including termination of employment.

To calibrate the pressure transducers, WAM keeps an extra transducer on-site that has been calibrated by the manufacturer and uses this device to calibrate the six "in operation" devices at least once per calendar quarter. During the quarterly calibration of the transducers, WAM also inspects the capture system components for integrity, electrical connections for continuity, and mechanical connections for leakage.

Once per calendar quarter

4.5 OPERATING PARAMETER LIMITS

Because a pressure drop of greater than 0.007 inches of water corresponds to the 200 feet per minute required by Method 204 for total enclosures, WAM has established 0.007 inches of water as the minimum acceptable pressure drop across each enclosure. This is consistent with recent surface coating MACT standards. As part of the performance testing conducted at the Blacksburg facility on May 19, 2005, WAM monitored the pressure drop across the six enclosures associated with the two lines during each of the one-hour VOC test runs. Four (4) pressure drop readings were recorded during each one-hour run for the enclosures. The average of the four pressure drop readings on each enclosure confirmed that the enclosures could be assumed to have 100 % capture efficiency, since each enclosure had an average pressure drop greater than 0.007 inches of water.

As stated in the Metal Coil MACT, the established operating limit must represent conditions indicative of proper operation and maintenance of the capture system. WAM considers pressure drop to be the best indicator of capture system performance, and Method 204 establishes 0.007 inches of water as the appropriate limit. If access doors are inadvertently left open, flow from the drying ovens drops due to a fan or control device malfunction, or a significant leak develops in the enclosure, the pressure drop monitoring proposed by WAM will immediately identify the problem. Implementing this CSMP, in addition to the SSMP discussed in Section 5 of this binder, ensures compliance with the Metal Coil MACT and Title V Permit VA-20763.

5. STARTUP SHUTDOWN AND MALFUNCTION PLAN

5.1 PURPOSE

As required under 40 CFR 63.5180 of the Metal Coil MACT and 40 CFR 63.6(e)(3) of the MACT General Provisions, WAM is required to develop and implement a Startup, Shutdown, and Malfunction Plan (SSMP) that identifies means of minimizing emissions of HAPs during malfunction periods of the subject coating operation equipment at the Blacksburg facility. According to the Metal Coil MACT, only facilities that use capture systems and control devices are required to develop a SSMP. Therefore, this SSMP only addresses potential malfunctions of either the capture systems or control device used on the two coating lines (CL2 and CL4) that could result in emission of HAPs above normal operations.

The purpose of a SSMP is to ensure that at all times process equipment on coating lines CL2 and CL4 are maintained in a manner consistent with good air pollution control practices for minimizing HAP emissions. Further, this plan ensures that corrective actions are taken by operators as soon as practicable in order to minimize excess air emissions during malfunction periods. As provided for in 40 CFR Part 63(e)(3)(vi), this SSM Plan refers to Standard Operating Procedures (SOPs) used by WAM, when appropriate. The single SOP cross-referenced with this plan is the MegTec RTO Owner's Manual, which is contained in Appendix C of this binder. Finally, through execution of this plan, the reporting burden associated with periods of malfunction should be reduced.

5.2 SCOPE

This SSMP includes the following elements as required by the Metal Coil MACT and general MACT provisions:

- Detailed procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction [40 CFR 63.6(e)(3)(i)].
- A program of corrective action for malfunctioning process and air pollution control and monitoring equipment used to comply with the Metal Coil MACT [40 CFR 63.6(e)(3)(i)].
- Recordkeeping system to document each startup, shutdown, and malfunction event, and whether or not actions taken during the event conformed to the SSMP [40 CFR 63.6(e)(3)(iii and iv) – 40 CFR 63.5180(f)(1 and 2)].
- Reporting to regulatory agencies providing information on malfunction events [40 CFR 63.6(e)(3)(iv) – 40 CFR 63.5180(f)(1) and (2)].
- SSMP updates and retention of previous plans. If the SSMP is revised, the previous versions must be kept for 5 years after revision [40 CFR 63.6(e)(3)(v)].

5.3 MALFUNCTION PLANS FOR CL2 AND CL4

This section summarizes the specific malfunction procedures that will be followed for those processes and activities covered by the Metal Coil MACT standard SSMP procedures. Specifically, this section discusses the potential malfunctions that can occur related to the:

1. Blacksburg RTO; and
2. CL2 and CL4 Capture Systems

In most cases, WAM operates the Blacksburg RTO in accordance with the manufacturer's recommended operating procedures, which minimizes the potential for malfunctions. However, certain types of malfunctions may be unavoidable even with good operating practices. Malfunctions of this type are identified in this section, and WAM has provided specific corrective actions that the operator(s) need to take in order to minimize HAP emissions during these events. In addition to malfunction specific corrective actions, WAM has also specified startup and shutdown procedures for the RTO.

To satisfy the requirements of 40 CFR 63.6(e)(3)(viii), WAM will revise or add additional corrective actions to this SSMP document, whenever this section fails to address or inadequately addresses an event that meets the definition of a malfunction. As required by regulation, the SSMP will be revised within 45 days after such an event. The following sub-sections are intended to generally describe the types of SSM events that could occur at the Blacksburg facility while operating CL2 and CL4 and reference the specific corrective action necessary to satisfy the Subpart A SSMP requirements.

5.3.1 BLACKSBURG RTO SSMP

Even though operating the RTO in accordance with the manufacturer's recommended procedures eliminates a majority of potential malfunctions, several malfunctions that apply to the RTO have been identified that require operator corrective actions to minimize HAP emissions. The malfunction scenarios identified and the corresponding corrective actions taken to minimize HAP emissions during these events are summarized in Table 5-1.

TABLE 5.1. MALFUNCTION SCENARIOS FOR THE CL6 THERMAL INCINERATOR

Malfunction Scenario	Corrective Action To Minimize HAP Emissions*
Highest combustion chamber temperature drops below established limit of 1589° F	Stop applying coating on both lines. Identify cause of low temperature and ensure RTO is operating above the temperature limit prior to applying coatings.
Exhaust flow is diverted away from combustion chamber	Stop applying coating on both lines. Identify cause of misdirected exhaust flow and ensure RTO is operating properly prior to applying coatings.
Minor leak at incinerator (which did not cause a noticeable loss of enclosure pressure drop)	Stop applying coating on both lines. Shutdown the RTO according to standard procedure. Repair leak prior to returning RTO to service and applying coatings.
Loss of electrical power	Stop applying coating on both lines. Verify that power interruption did not affect RTO prior to applying coatings.

* For all malfunctions listed in this table, the environmental coordinator is notified of the event.

Whenever one of the RTO malfunctions listed in Table 5.1 occurs, a checklist detailing the duration, start and end times, and confirmation that corrective actions listed in Table 5.1 were followed is filled out and retained for periodic SSM reports. If a RTO malfunction occurs that is not listed in Table 5.1, or if the corrective action taken in response to a malfunction deviates from this plan, the environmental coordinator is notified immediately.

All startups and shutdowns of the RTO are completed in accordance with the standard operating procedure. All routine startups and shutdowns and the once per shift pressure drop readings for each enclosure are documented in a logbook. Startups and shutdowns related to a RTO malfunction are documented in the SSMP checklist as well as the daily logbook.

5.3.2 CL2 AND CL4 CAPTURE SYSTEMS SSMP

Even though operating the four CL4 enclosures and two CL2 enclosures in accordance with the Blacksburg CSMP, discussed in Section 4, eliminates a majority of potential malfunctions, several malfunctions that apply to these enclosures have been identified that require operator corrective actions to minimize HAP emissions. The malfunction scenarios identified and the corresponding corrective actions taken to minimize HAP emissions during these events are summarized in Table 5-2.

TABLE 5.2. MALFUNCTION SCENARIOS FOR THE CL2 AND CL4 ENCLOSURES

Malfunction Scenario	Corrective Action To Minimize HAP Emissions*
Pressure drop cannot be maintained above 0.007 in of H_2O with all access doors and windows closed	Stop applying coating at the roll station experiencing the problem. Identify and document the cause of loss of negative pressure prior to applying coatings again at the relevant station(s).
Non-routine adjustments to a coating roll(s) require the access windows to remain open for longer than 10 minutes with the pressure drop less than 0.007 in of H_2O.	Try to keep the access windows closed as much as possible during adjustments. Document the cause of the non-routine adjustment in an SSMP checklist form. Verify that the coating station is operating properly and the pressure drop has returned to above 0.007 in of H_20 after adjustments are completed.
Temporary power surges affecting the enclosure lighting system.	Open the access windows to ensure that coatings are not spilled during this period. Use a capture bucket if needed. Verify that the power has returned to normal and that the pressure drop has returned to above 0.007 in of H_20 after episode is over.
Loss of electrical power	Stop applying coating at the roll station experiencing the problem. Verify that power interruption did not affect pressure transducer readouts prior to applying coatings at the relevant coating station(s).

* For all malfunctions listed in this table, the environmental coordinator is notified of the event.

Whenever one of the CL2 or CL4 enclosure malfunctions listed in Table 5.2 occurs, a checklist detailing the duration, start and end times, and confirmation that corrective actions listed in Table 5.2 were followed is filled out and retained for periodic SSM reports. If a capture system malfunction occurs that is not listed in Table 5.2, or if the corrective action taken in response to a malfunction deviates from this plan, the environmental coordinator is notified immediately.

There are no startup or shutdown events associated with the Blacksburg facility capture systems.

5.4 SSMP MAINTENANCE PROCEDURES FOR CL2 AND CL4

Documentation of maintenance activities is required under 40 CFR 63 Subpart A. Maintenance required for the Blacksburg RTO is prompted by the work order system. Although not specifically required by the Blacksburg Title V permit or the Metal Coil MACT, WAM conducts monthly, semi-annual and annual monitoring and maintenance on the RTO. Documentation of the details of the maintenance performed during these periodic inspections of the RTO is contained in Appendix B.

WAM notes that the thermocouples used to monitor the critical operating temperatures of the RTO are maintained and calibrated in accordance with the temperature indicator and maintenance plan discussed in Section 3 of this binder. Finally, the capture systems on CL2 and CL4 are operated and maintained in accordance with the capture system monitoring plan discussed in Section 4 of this report.

5.5 SSMP RECORDKEEPING AND REPORTING REQUIREMENTS

In the case of a SSM event, compliance with the following recordkeeping and reporting requirements is required. Copies of all applicable records and reports needed to demonstrate compliance with this plan must be kept for at least 5 years. At a minimum, the most recent two years worth of data must be kept on-site and be readily accessible for inspection.

5.5.1 SSM RECORDKEEPING

In accordance with the provisions of §63.6(e)(3)(iii) of Subpart A, the owner/operator is required to maintain records to demonstrate that the provisions of the SSM Plan were followed during startup, shutdown, and malfunction periods. For each malfunction event that occurs during the reporting period, records of the occurrence, the duration, the affected source, control device, or monitoring equipment, and corrective actions taken are kept.

Appendix D contains forms that are used to record each malfunction events in Plex. The form is used to document all records required to demonstrate conformance with the SSMP. These records are maintained and organized for periodic reports. Actions taken during a malfunction event that are inconsistent with those outlined in the current SSM Plan are noted in the recordkeeping form and discussed in the next periodic report.

5.5.2 SSM PLAN DEVIATIONS

In the event that this document fails to address a situation involving SSM, several additional reporting requirements apply. First, the VDEQ must be notified via fax or phone within 2 days of taking corrective actions not outlined in the current SSMP. Second, a letter giving details on the malfunction and corrective actions taken must be postmarked within 7 days. The letter must include the items listed below:

1. The name, title, and signature of a source's responsible official who is certifying the accuracy of the report, an explanation of the event, and the reasons for not following the SSM plan.

2. A description and date of the SSM event, its duration, and excess emissions and/or parameter monitoring exceedances, which were believed to have occurred.

Finally, revisions to the SSM Plan must be made within 45 days of the event, which warranted deviation from the SSM Plan, and a note of the revision must be contained in the next periodic report. Additionally, the previous version of the plan should be maintained on site and be made available to the VDEQ or EPA for a period of 5 years after the revision. For the recordkeeping purposes of this plan, previous versions (if any revisions have been made) will be dated and maintained under Appendix E of this binder.

5.5.3 PERIODIC REPORTING

40 CFR 63 Subpart A §63.10(d)(5)(i) contains the requirements for periodic startup, shutdown, and malfunction reports. If any startup, shutdown or malfunction events occurred during the most recent six month period, the semi-annual Metal Coil MACT report must provide a summary of each event. The report should consist of a letter containing name, title, and signature of the responsible official certifying that actions taken during the semi-annual period were consistent with the current SSM Plan. In addition, the semi-annual report should include the number, duration, and a brief description of each event, which is essentially a summary of the SSMP checklists and daily logbook maintained to document routine startups and shutdowns of control equipment. WAM does not need to submit the actual SSMP checklist, but merely provide a summary of the checklists.

In the event that actions were taken, which required deviation from the SSM Plan, additional information on the event must be included in the periodic report, consistent with the SSM deviation reporting, discussed in Section 5.5.2.

5.6 CONFORMANCE WITH SSM PLAN FOR MALFUNCTION EVENTS

The following implementation steps for each malfunction event serve as general guidance for operations and environmental personnel at WAM in determining actions to be taken during and after an malfunction event.

OPERATIONS:

1. For each malfunction event, the process operator shall review the specified corrective action in this plan to ensure that the malfunction procedure is consistent with the action that is taken.
2. A Plex form should be filled out for each event to indicate that the corrective action taken was consistent with the SSMP.
3. Deviations from the SSMP shall be reported to the environmental coordinator immediately upon taking action inconsistent with this section and shall also be documented in the checklist form.
4. A copy of the Plex entry shall be made available to the environmental coordinator for recordkeeping with the SSM plan.

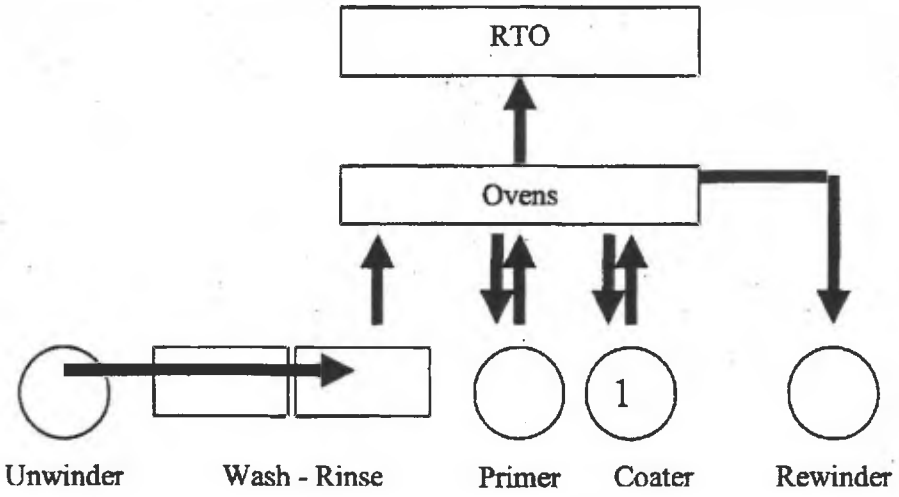
ENVIRONMENTAL:

1. Retain SSM event checklist forms in Appendix D (a blank checklist is included for reference).
2. Immediately review any checklist form provided by operations that indicates that a deviation from the SSMP was required and notify the VDEQ as detailed in Section 5.5.2.
    a. Updates to the corrective action or cross-referenced SOP for any deviations must be made within 45 days.
    b. Forward a copy of the revised corrective action (table) to the appropriate operational staff.
3. Maintain and update records needed to prepare periodic reports that are to be maintained with the environmental files.

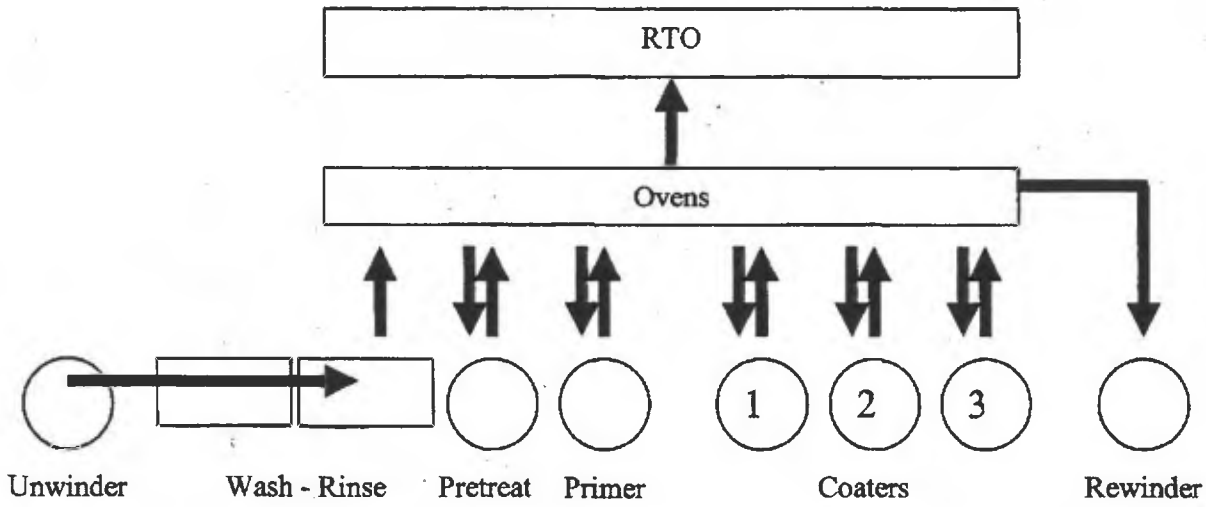
5.7 SSMP TRAINING

WAM has conducted appropriate internal training to ensure that compliance with the SSM Plan is achieved.

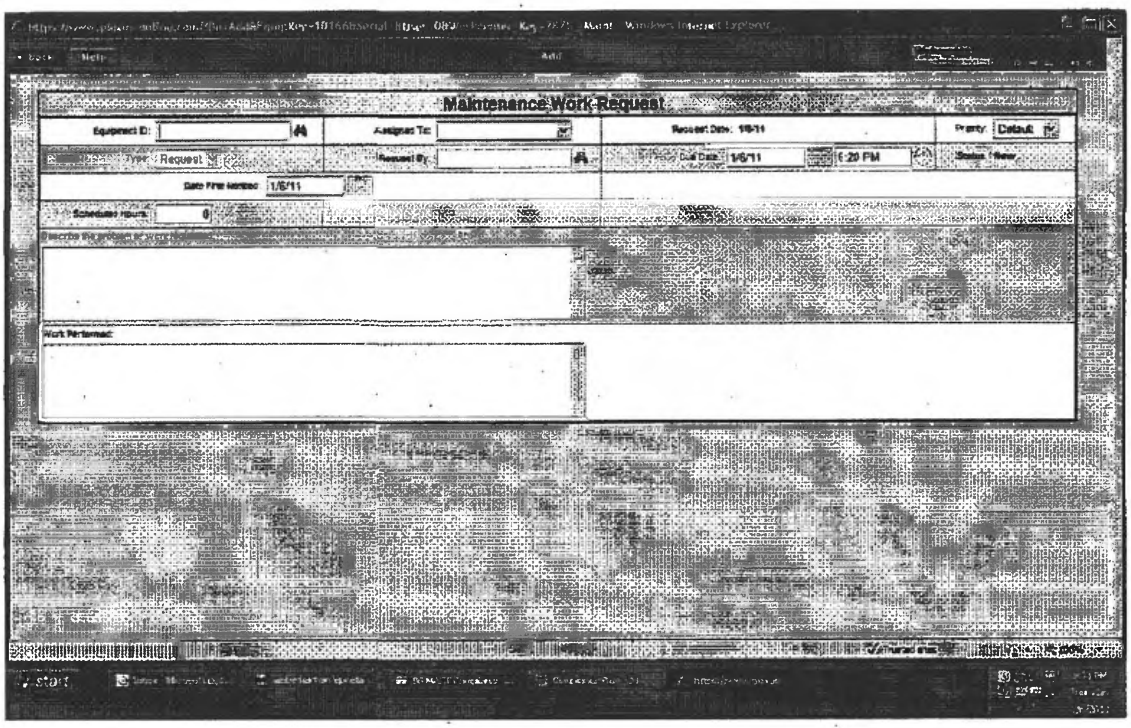
Coating Line 2



Coating Line 4



APPENDIX B – SAMPLE WORK ORDER SYSTEM DOCUMENTS



APPENDIX C – RTO OWNER'S MANUALS

MAINTAINED IN THE MAINTENACE SUPERVISORS OFFICE.

APPENDIX D – SSMP PLEX RECORDS

Time	Hours	Part	Operation	Job No	Status	Reason/Equipment	Notes	Prod	Throwouts	Scrap	Labor Hrs	Operators

APPENDIX E – PREVIOUS VERSIONS OF COMPLIANCE PLAN SECTIONS

Original Plan – 12/30/2004
Revision I – 06/10/2005
Revision II – 01/06/2011

Work Order

10/26/2010

WO No. 0075568 (PM-EPA RG) Task No. EC01
RTO - CLEAN SWITCH - MONTHLY

Equip No.	EC01	RTO	
Location	Blacksburg Plant	Department	GP
Sub-location 1		Cost Center	72
Sub-location 2		Warranty Exp. Date	
Sub-location 3		Meter Reading	
Originator		Phone No.	
Request Date		Ext.	
Start Date	11/3/2010	Craft	MECA2
Finish Date	11/2/10	Crew Size	2.00
Priority		Est. Labor Hours	2.00
RFO Code	( )		
Downtime			

Labor

Employee	Craft	Name	Hours
95201	mecn	TD	3
22	mecn	CR	3

Comments and Notes

Task Instructions

RTO - CLEAN SWITCH - MONTHLY

[/] NO DEFECT

[X] DEFECT

[/] CHECK THAT ALL GUARDS ARE INSTALLED

[/] CLEAN OR CHANGE AIR LINE FILTERS

[/] CHECK THE DESICCANT DRYER FOR PROPER OPERATION

[/] CHECK LINKAGE

[/] CHECK ALL DAMPERS, INCLUDING T-DAMPERS ON ROOF AND VALVES FOR CORRECT SETTINGS AND TIGHTNESS

[/] LUBRICATE EXHAUST FAN AND COMBUSTION BLOWER

[/] CHECK CONTROL ROOM AC/HEATING UNIT FOR PROPER OPERATIONS

[/] CHECK HOT WATER COIL FOR LEAKS

[X] APPLY DRY FILM LUBRICANT TO SHIFTING VALVE GEAR Valve Body Leaking air Comp OK

[/] CHECK SPECIFIC GRAVITY OF ETHYLENE GLYCOL (ANTI-FREEZE) SHOULD BE -20°F, IF NOT ADD ETHYLENE GLYCOL -26

[/] COMPARE COMBUSTION CHAMBER TEMPERATURE ON PANIMATE TO CHAMBER TEMP ON YOKOGAWA CHART RECORDER, SHOULD BE WITHIN 1 DEGREEE. IF NOT CONTACT MAINTENANCE

Work Order

10/26/2010

WO No. 0075569 (PM-EPA RG) Task No. EC02

RTO - CLEAN SWITCH - SEMI-ANNUAL

Equip No.	EC01	RTO	
Location	Blacksburg Plant	Department	GP
Sub-location 1		Cost Center	72
Sub-location 2		Warranty Exp. Date	
Sub-location 3		Meter Reading	
Originator		Phone No.	
Request Date		Ext.	
Start Date	11/1/2010	Craft	MECA2
Finish Date	11/12/10	Crew Size	2.00
Priority		Est. Labor Hours	2.00
RFO Code	( )		
Downtime			

Labor

Employee	Craft	Name	Hours
22	mech	CN	2 hr
95201	mech	TD	2 hr

Comments and Notes

Task Instructions

RTO - CLEAN SWITCH - SEMI-ANNUAL

[/] NO DEFECT

[X] DEFECT

[/] ADJUST AIR SUPPLY REGULATOR TO 80 PSI

[/] CHECK FOR AIR LEAKS

[/] CHECK FOR GAS LEAKS

[/] CHECK EXHAUST FAN FOUNDATION BOLTS

[/] CHECK ALL DUCT WORK FOR LEAKS

[X] CHECK ELECTRICAL INTEGRITY - SEAL TIGHT/ELECTRICAL CONNECTIONS isolation damper solenoid cover was off - fixed it

[/] CLEAN GAS TRAIN STRAINER

[/] CHECK CALIBRATION OF THERMOCOUPLE READINGS

COMMENTS:

Work Order

11/18/2010 ✓  1

WO No.	0075808	(PM-EPA RG)	Task No.	EC03	
DIABLO UNIT COATING LINE #2					
Equip No.	EC02	DIABLO UNIT COATING LINE #2			
Location	Blacksburg Plant		Department	CL2	
Sub-location 1			Cost Center	G01	
Sub-location 2			Warranty Exp. Date		
Sub-location 3			Meter Reading		
Originator			Phone No.		
Request Date			Ext.		
Start Date	12/4/2010		Craft	MECA2	
Finish Date	12/4/10		Crew Size	2.00	
Priority			Est. Labor Hours	1.00	
RFO Code	( )				
Downtime					

Labor

Employee	Craft	Name	Hours
22	Mec M	C M	2 hr

Comments and Notes

Task Instructions

DIABLO - COATING LINE #2 MONTHLY PM

[/] NO DEFECT

[X] DEFECT

[/] CHECK THAT ALL GUARDS ARE INSTALLED_____

[/] OBSERVE THE BURNER FLAME THROUGH THE SIGHT GLASS FOR STABILITY_____

[/] CHECK ALL DAMPERS AND VALVE FOR CORRECT SETTINGS AND TIGHTNESS AGAINST CONTROLLER SETTINGS_____

[/] CHECK ELECTRICAL INTEGRITY - SEAL TIGHT/ELECTRICAL CONNECTIONS_____

[/] CHECK FOR GAS LEAKS, PROPER PRESSURE/LINKAGE ON DAMPERS_____

[/] CLEAN AIR FILTER ON CONTROL CABINET_____

COMMENTS_____

4.)

Record sheet. Return a copy of readings to the Quality Assurance Department. Q. A., in-turn, will issue new calibration stickers.

Gage I. D.	Monitor Description	Display Reading As Found	Display Reading after Adjustment
( ) RPM-1 C/L 2	Coater 1, Line 2	.001	.001
( ) RPM-P C/L 2	Primer, Line 2	.003	0
( ) RPM-1 C/L 4	Coater 1, Line 4		
( ) RPM-2 C/L 4	Coater 2, Line 4		
( ) RPM-3 C/L 4	Coater 3, Line 4		
( ) RPM-P C/L 4	Primer, Line 4		

Comments: _____

Calibrated by: CMS (ow) Date: 1-21-10

4.)

Record sheet. Return a copy of readings to the Quality Assurance Department. Q. A., in-turn, will issue new calibration stickers.

Gage I. D.	Monitor Description	Display Reading As Found	Display Reading after Adjustment
( ) RPM-1 C/L 2	Coater 1, Line 2		
( ) RPM-P C/L 2	Primer, Line 2		
( ) RPM-1 C/L 4	Coater 1, Line 4	-.003	0
( ) RPM-2 C/L 4	Coater 2, Line 4	-.007	0
( ) RPM-3 C/L 4	Coater 3, Line 4	-002	0
( ) RPM-P C/L 4	Primer, Line 4	-.013	0

Comments: _____

Calibrated by: CMA Date: 1/19/10

4.)

Record sheet. Return a copy of readings to the Quality Assurance Department. Q. A., in-turn, will issue new calibration stickers.

Gage I. D.	Monitor Description	Display Reading As Found	Display Reading after Adjustment
(4) RPM-1 C/L 2	Coater 1, Line 2	+ 05	0
(4) RPM-P C/L 2	Primer, Line 2	+ 06	0
(4) RPM-1 C/L 4	Coater 1, Line 4	0	0
(4) RPM-2 C/L 4	Coater 2, Line 4	0	0
(4) RPM-3 C/L 4	Coater 3, Line 4	- 4	0
(4) RPM-P C/L 4	Primer, Line 4	+11	0

Comments: ok

Calibrated by: CMS Date: 7/23/10 - 7/27/10

Wolverine ADVANCED MATERIALS
An EaglePicher Company

Blacksburg Room Pressure Monitor Calibration

Equipment Description:
Room Pressure Monitor
Mfg.: MODUS
Model: RPM-1

Lockout, Tag-out, and Safety:
No Lockout, Tag-out required. Observe General Safety Rules.

Calibration Scope:
Zeroing of the Pressure Monitor readout.

Gage I.D.	Description and Location	Frequency
RPM-1 C/L 2	Room Pressure Monitor, Coater 1, Coating Line # 2	6 mos.
RPM-P C/L 2	Room Pressure Monitor, Primer Booth, Coating Line # 2	6 mos.
RPM-1 C/L 4	Room Pressure Monitor, Coater 1, Coating Line # 4	6 mos.
RPM-2 C/L 4	Room Pressure Monitor, Coater 2, Coating Line # 4	6 mos.
RPM-3 C/L 4	Room Pressure Monitor, Coater 3, Coating Line # 4	6 mos.
RPM-P C/L 4	Room Pressure Monitor, Primer Room, Coating Line # 4	6 mos.

Calibration Equipment and Number of people required:
- Small "jeweler's style" screwdriver
- Requires one person

Procedure:
1.) Remove the bottom front cover plate of the monitor and carefully remove the sample tube (see **Figure 1**). (If removal is not possible, leave the tube in place and open doors/windows on the monitored room. This works best if fans are OFF.) Record the pressure reading on the record sheet provided at the end of the calibration procedure.

2.) If the reading is "000" then the monitor is considered to be in calibration. If not, use a small screwdriver to adjust the "zero" potentiometer as close to "000" as possible (see **Figure 1**). Record the readout as left after the adjustment.

3.) After completing the calibration turn the record sheet into the Quality Assurance (Q.A.) Department. They will issue calibration stickers. Install the new sticker(s) on the front panel face of the Room Pressure Monitor.

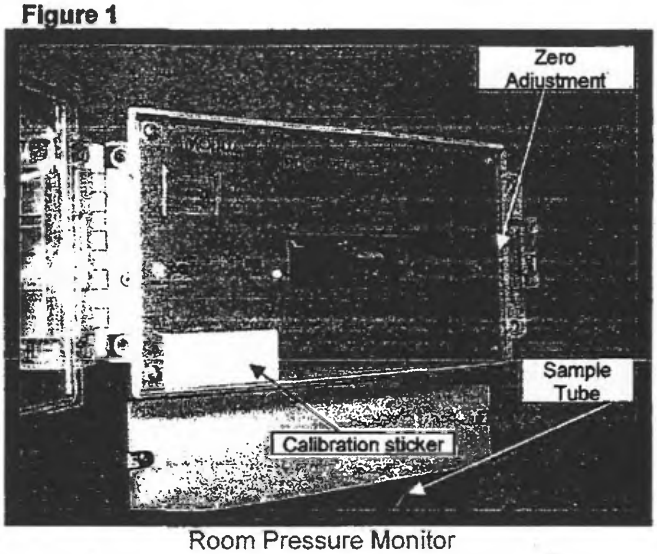
Note: Both lines must be in 'Line Run' before meters will power up! If lines need started, see below:

CL2) Turn on 'Control Power' breaker at bottom of control panel. Make sure ALL e-stops are out (they should be lighted), then reset e-stops. E-stop buttons should light when reset is pushed. Start hydraulics and trackers (at panel near work desk). Turn line speed to zero! Raise front tower. The 'Line Run' button should work now.

CL4) Close main breakers on both motor control cabinets. Make sure ALL e-stops are out, then reset e-stops. E-stop buttons should light when reset is pushed. Start hydraulics and trackers (at control station by recoiler), turn line speed to zero and then raise front tower. The 'Line Run' button should work now.

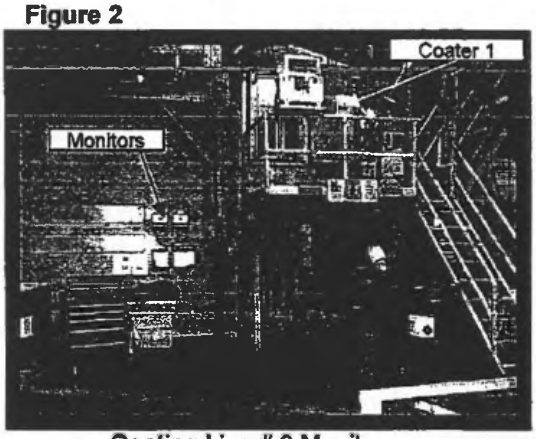
Procedure Illustrations:

Figure 1



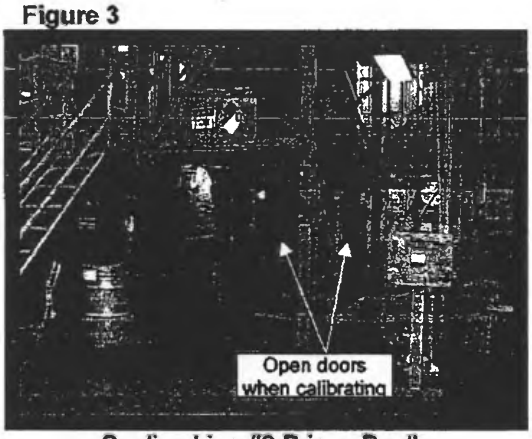
Room Pressure Monitor

Figure 2



Coating Line # 2 Monitors

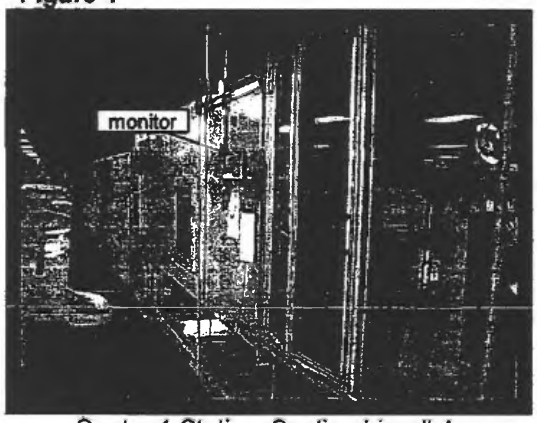
Figure 3



Coating Line #2 Primer Booth

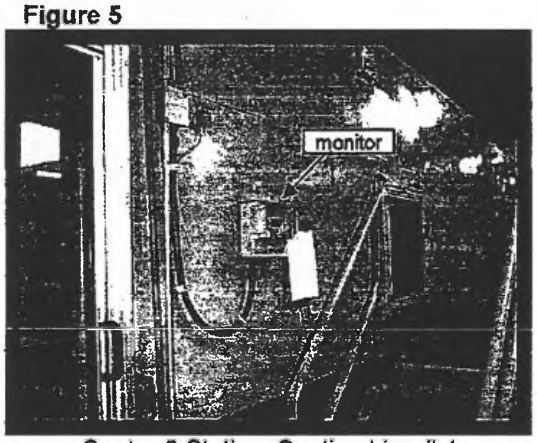
Procedure Illustrations (con't):

Figure 4



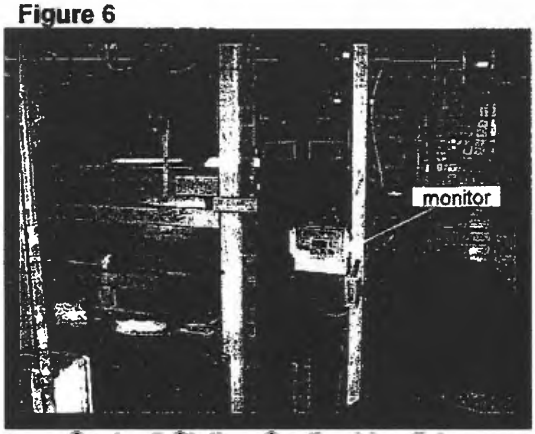
Coater 1 Station, Coating Line # 4

Figure 5



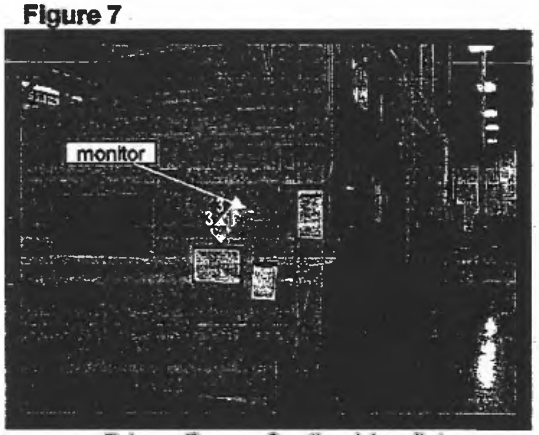
Coater 2 Station, Coating Line # 4

Figure 6



Coater 3 Station, Coating Line # 4

Figure 7



Primer Room, Coating Line # 4

Record sheet. Return a copy of readings to the Quality Assurance Department. Q. A., in-turn, will issue new calibration stickers.

Gage I. D.	Monitor Description	Display Reading As Found	Display Reading after Adjustment
( ) RPM-1 C/L 2	Coater 1, Line 2	_____	_____
( ) RPM-P C/L 2	Primer, Line 2	_____	_____
( ) RPM-1 C/L 4	Coater 1, Line 4	_____	_____
( ) RPM-2 C/L 4	Coater 2, Line 4	_____	_____
( ) RPM-3 C/L 4	Coater 3, Line 4	_____	_____
( ) RPM-P C/L 4	Primer, Line 4	_____	_____

Comments: _____

_____

_____

_____

Calibrated by : _____ Date: _____

Wolverine Gasket Division
Blacksburg Plant
Weekly Opacity Inspection Log

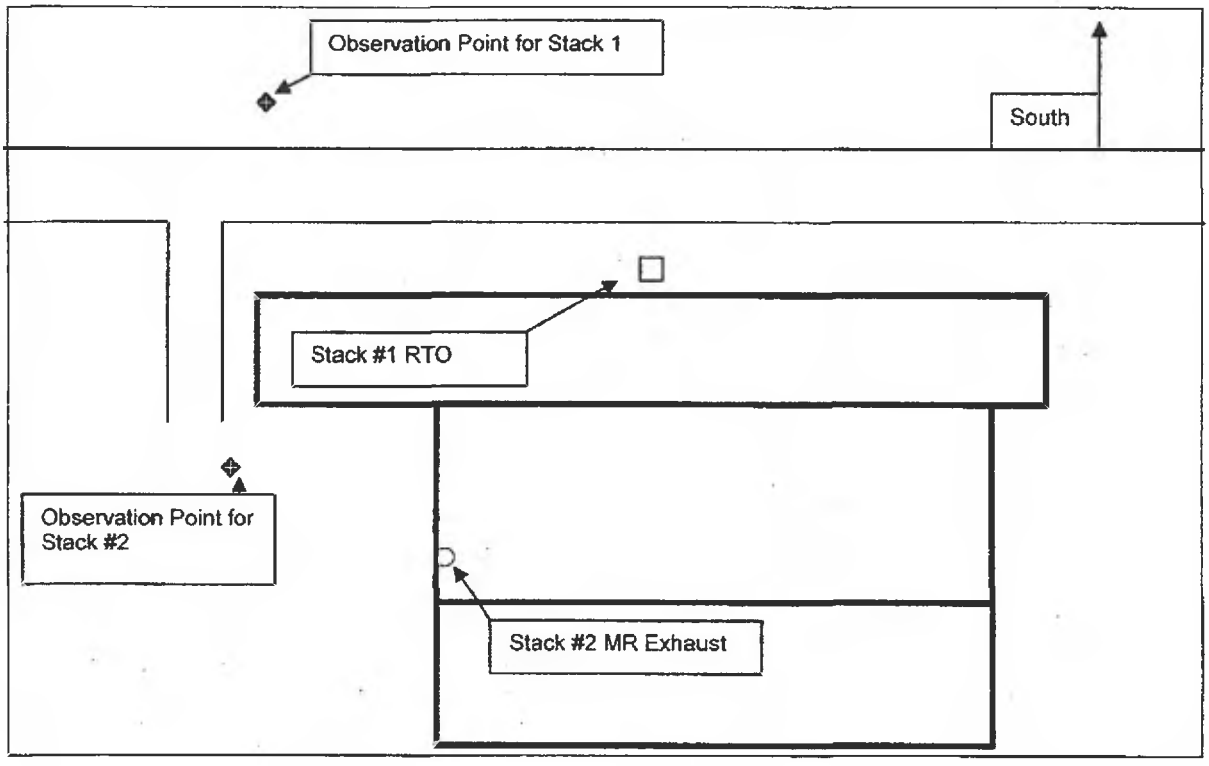
Week Beginning 12/12/10 Week Ending 12/18/10 Analyst: [signature]
Date: 12/14/10

Note: All readings taken were done by EPA Method 22 and all sources of fuel are natural gas

Stack#1 – RTO
Visible Emissions Yes (No)
Time: 2:05pm

Stack #2 – Mixing Room Exhaust
Visible Emissions Yes (No)
Time: 2:20pm

Note: Map below not to scale



Periodic Report Requirements, § 63.5180(g)(2)(iii)

§ 63.5180 Reporting and Recordkeeping

(g) You must submit semi-annual compliance reports containing the information specified in paragraphs(g)(1) and (2) of this section.

(2) The semi-annual compliance report must contain the following information:

(iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the six month period ending on June 30 or December 31. Note that the information reported for each of the six months in the reporting period will be based on the last twelve months of data prior to the date of each monthly calculation.

This report is being submitted prior to September 1, 2010 and covers the reporting period of January 1, 2010 through June 30, 2010.

Periodic Report Requirements, § 63.5180(g)(2)(iv)

§ 63.5180 Reporting and Recordkeeping

(g) You must submit semi-annual compliance reports containing the information specified in paragraphs(g)(1) and (2) of this section.

(2) The semi-annual compliance report must contain the following information:

(iv) Identification of the compliance option or options specified in Table 1 to § 63.5170 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning dates you used each option.

Wolverine uses Option 3 – ***"Use of a capture system and control device"*** in Table 1 of §63.5170 to comply with the requirements of Subpart SSSS for CL2 and CL4. In order to maintain continued compliance with applicable requirements, a Metal Coil NESHAP Compliance Plan has been developed and implemented. Within the Compliance Plan, the following procedures are outlined:

- *Capture System Monitoring Plan (CSMP),* which provides a current copy of the monitoring plan in place for the capture systems;
- *Temperature Indicator Maintenance Plan (TIMP),* which provides a current copy of the maintenance procedures used to ensure that control device temperature readings are accurate; and
- *Startup, Shutdown, and Malfunction Plan (SSMP),* which provides a current version of the SSM procedures that apply to the control equipment and capture systems.

CAPTURE SYSTEM MONITORING

In accordance with the Capture System Monitoring Plan, Wolverine utilizes Model No. RPM-1-A-01E Modus pressure transducers on each of the enclosures. The pressure transducers are equipped with digital readouts that are easily accessible by the line operators. Each of the enclosures are also equipped with a visible red light that illuminates anytime the pressure drop falls below the established operating limit of 0.007 inches of water. The line operators record the pressure drop reading at each enclosure once per shift in a logbook.

The access windows remain closed during normal routine operation and are only opened for brief periods when line adjustments need to be made by the operators for quality or safety reasons, as allowed by other surface coating MACT standards and New Source Performance Standards. All line operators have been trained that these periods are to be kept to a minimum in both frequency and duration, and that failure to comply may result in disciplinary action up to and including termination of employment. Operators record each period of time when the pressure drop falls below the established limit. Wolverine also records any period of time when the access doors need to remain open for more than a ten-minute period.

TEMPERATURE MONITORING

Wolverine continuously monitors the temperature of the regenerative thermal oxidizer to determine if the temperature falls below the limits established during the initial performance test (minimum of 1589 °F).

STARTUP SHUTDOWN AND MALFUNCTION MONITORING

Wolverine has developed and implemented an SSMP for CL2 and CL4 and their associated capture and control systems at the Blacksburg facility. Records of routine startups and shutdowns are maintained in one logbook, and records of malfunctions are maintained on separate recordkeeping forms in accordance with the SSMP.

Periodic Report Requirements, § 63.5180(g)(2)(v)

§ 63.5180 Reporting and Recordkeeping

(g) You must submit semi-annual compliance reports containing the information specified in paragraphs(g)(1) and (2) of this section.

(2) The semi-annual compliance report must contain the following information:

(v) A statement that there were no deviations from the standards during the reporting period, and that no CEMS were inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted.

Deviations that occurred during the January 1, 2010 through June 30, 2010, reporting period are discussed in the following section , which includes the information required by § 63.5180(h).

Periodic Report Requirements, § 63.5180(h)

§ 63.5180 Reporting and Recordkeeping

(h) You must submit, for each deviation occurring at an affected source where you are not using CEMS to comply with the standards in this subpart, the semi-annual compliance report containing the information in paragraphs (g)(2)(i) through (iv) of this section and the information in paragraphs (h)(1) through (3) of this section:

(1) The total operating time of each affected source during the reporting period.

(2) *Information on the number, duration, and cause of deviations (including unknown cause, if applicable) as applicable, and the corrective action taken.*

(3) *Information on the number, duration, and cause for monitor downtime incidents (including unknown cause) other than downtime associated with zero and span and other daily calibration checks, if applicable.*

Throughput/Emissions Summary for 2010

Coating Line 2

Month	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10
VOC Throughput (tons/month) [116]	1.58	3.10	3.48	3.91	4.30	3.48	3.38	5.90	3.96	3.74	1.22	0.18
VOC 12-month Rolling Throughput (tons/yr) [1011]	45.66	47.50	44.86	43.96	46.01	44.46	42.25	43.82	42.60	42.47	40.65	38.23
VOC Monthly Emissions (tons/mo)	0.01	0.02	0.02	0.02	0.03	0.02	0.02	0.04	0.02	0.02	0.01	0.00
VOC Hourly Emissions (lb/hr) [6.48]	0.39	1.18	0.78	1.07	1.04	0.98	0.51	1.03	1.13	1.18	0.85	0.18
VOC 12-month Rolling Emissions (tpy) [20.2]	0.27	0.28	0.27	0.26	0.28	0.27	0.25	0.26	0.26	0.25	0.24	0.23

Coating Line 4

Month	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10
VOC Throughput (tons/month) [390]	29.81	70.26	80.55	70.22	72.10	80.44	87.90	56.45	63.88	71.43	75.65	29.10
VOC 12-month Rolling Throughput (tons/yr) [2082]	435.03	495.07	540.31	585.14	623.77	670.12	738.15	743.24	771.49	802.81	825.47	787.79
VOC Monthly Emissions (tons/mo)	0.21	0.49	0.56	0.49	0.50	0.56	0.62	0.40	0.45	0.50	0.53	0.20
VOC Hourly Emissions (lb/hr) [21.6]	2.92	3.75	3.44	4.02	4.13	3.79	5.33	3.18	3.42	3.54	4.54	3.67
VOC 12-month Rolling Emissions (tpy) [41.6]	3.05	3.47	3.78	4.10	4.37	4.69	5.17	5.20	5.40	5.62	5.78	5.51