State of Idaho
Department of Environmental Quality
Air Quality Division

**AIR QUALITY PERMIT**
**STATEMENT OF BASIS**

# TII Operating Permit No. T2-2008.0039
# Final

## SemMaterials, L.P.
## Boise, Idaho
## Facility ID No. 001-00049

**June 30, 2008**
**Ken Hanna**
**Permit Writer**

The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01.400, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

# Table of Contents

# Acronyms, Units, and Chemical Nomenclature

| | |
|---|---|
| AC | asphalt cement |
| AE | asphalt emulsion |
| AFS | AIRS Facility Subsystem |
| AIRS | Aerometric Information Retrieval System |
| AQCR | Air Quality Control Region |
| ASTM | American Society for Testing and Materials |
| Btu | British thermal unit |
| CFR | Code of Federal Regulations |
| CO | carbon monoxide |
| DEQ | Department of Environmental Quality |
| EC | emulsion cutback |
| EPA | Environmental Protection Agency |
| gal/yr | gallons per year |
| HAPs | Hazardous Air Pollutants |
| IDAPA | A numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act |
| lb/hr | pounds per hour |
| MACT | Maximum Available Control Technology |
| MMBtu | Million British thermal units |
| NESHAP | Nation Emission Standards for Hazardous Air Pollutants |
| $NO_2$ | nitrogen dioxide |
| $NO_X$ | nitrogen oxides |
| NSPS | New Source Performance Standards |
| PM | Particulate Matter |
| $PM_{2.5}$ | Particulate Matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers |
| $PM_{10}$ | Particulate Matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers |
| PMAC | polymer modified asphalt cement |
| PSD | Prevention of Significant Deterioration |
| PTC | Permit to Construct |
| PTE | Potential to Emit |
| Rules | Rules for the Control of Air Pollution in Idaho |
| SM | synthetic minor |
| $SO_2$ | sulfur dioxide |
| T/yr | Tons per year |
| VOC | volatile organic compound |

# 1. FACILITY DESCRIPTION

SemMaterials, L.P. (SemMaterials) operates an asphalt terminal in Boise (Boise Asphalt Terminal). The facility receives asphalt cement (AC) by truck and railcar and stores the AC in above ground tanks. The AC is shipped out via truck. In addition, asphalt emulsion (AE) and emulsion cutback (EC) is manufactured through the milling of additives such as soaps, tall oil, caustic, hydrochloric acid, and fuel oil along with the asphalt cement. The AE and EC are stored on-site in tanks and eventually shipped out via truck. Table 3.1 below provides a list of equipment currently in operation at the facility. Steam from the boiler is used to heat the asphalt cement so that it can be pumped. The hot-oil heater is used to keep the contents in various tanks warm so they can be pumped into trucks for shipment. The facility has added several large storage tanks since the issuance of the facility's previous Tier II permit, and these tanks are addressed in the new permit. Sources of fugitive organic vapor emissions at the facility are pumps, valves, and fittings. Sources of fugitive dust emissions are paved and unpaved roads and traffic areas.

# 2. APPLICATION SCOPE

SemMaterials has applied for renewal of the Tier II operating permit. The renewal includes provisions for the tank changes that have occurred since issuance of the previous permit and for the replacement of two Kewanee boilers, each rated at 16.74 MMBtu/hr, with one Sellers boiler rated at 17 MMBtu/hr.

## *2.1 Application Chronology*

| | |
|---|---|
| March 14, 2008 | Application and fees for Tier II permit renewal received |
| April 11, 2008 | Application was declared complete |
| June 4, 2008 | Draft permit issued for Regional Office and Peer review |
| June 9, 2008 | Draft permit issued to SemMaterials for review |
| June 19, 2008 | Draft permit comments received from SemMaterials |

# 3. TECHNICAL ANALYSIS

## *3.1 Emission Units and Control Devices*

**Table 3.1 EMISSION UNIT AND CONTROL DEVICE INFORMATION**

| Emission Unit /ID No. | Description | Control Measures |
|---|---|---|
| **Point Sources** | | |
| T1 | Tank No. 1, Asphalt Cement; 2,121,00 gallons (gal) | Product throughput limits. Sulfa Treat system for odors. |
| T2 | Tank No. 2, Asphalt Cement; 1,071,000 gal | |
| T3 | Tank No.3, Chemical Storage; 7,500 gal | Product throughput limits |
| T4 | Tank No. 4, Polymer Modified Asphalt Cement; 105,800 gal | Product throughput limits. Sulfa Treat system for odors. |
| T5 | Tank No. 5, Polymer Modified Asphalt Cement; 105,800 gal | |
| T6 | Tank No. 6, Polymer Modified Asphalt Cement; 105,800 gal | Product throughput limits. Sulfa Treat system for odors. |
| T7 | Tank No. 7, Polymer Modified Asphalt Cement; 105,800 gal | |

| Emission Unit /ID No. | Description | Control Measures |
|---|---|---|
| T8 | Tank No. 8, Polymer Modified Asphalt Cement; 50,900 gal | Product throughput limits. Sulfa Treat system for odors. |
| T9 | Tank No. 9, Polymer Modified Asphalt Cement; 105,800 gal | |
| T10 | Tank No. 10, Distillate Oil; 13,500 gal | Product throughput limits |
| T11 | Tank No. 11, Chemical Storage; 11,800 gal | |
| T12 | Tank No. 12, Chemical Storage; 50,200 gal | Product throughput limits. Sulfa Treat system for odors. |
| T13 | Tank No. 13, Polymer Modified Asphalt Cement; 105,800 gal | |
| T14 | Tank No. 14, Asphalt Emulsion; 47,000 gal | Product throughput limits |
| T15 | Tank No. 15, Asphalt Emulsion; 50,200 gal | |
| T16 | Tank No. 16, Asphalt Emulsion; 79,400 gal | |
| T17 | Tank No. 17, Asphalt Emulsion; 105,800 gal | |
| T18 | Tank No. 18, Asphalt Emulsion; 50,600 gal | |
| T19 | Tank No. 19, Asphalt Emulsion; 38,100 gal | |
| T20 | Tank No. 20, Asphalt Emulsion; 50,200 gal | |
| T21 | Tank No. 21, Asphalt Emulsion; 66,300 gal | |
| T22 | Tank No. 22, Asphalt Emulsion; 50,200 gal | |
| T23 | Tank No. 23, Asphalt Emulsion; 50,200 gal | |
| T24 | Tank No. 24, Asphalt Emulsion; 50,200 gal | |
| T25 | Tank No. 25, Asphalt Emulsion; 36,100 gal | |
| T26 | Tank No. 26, Asphalt Emulsion; 30,100 gal | |
| T27 | Tank No. 27, Asphalt Cement; 28,600 gal | |
| T28 | Tank No. 28, Distillate Oil; 24,100 gal | |
| T29 | Tank No. 29, Distillate Oil; 21,300 gal | |
| T30 | Tank No. 30, Hydrochloric Acid; 6,500 gal | |
| T31 | Tank No. 31, Tall Oil; 16,900 gal | |
| T32 | Tank No. 32, Chemical Storage; 6,000 gal | |
| T33 | Tank No. 33, Chemical Storage; 6,000 gal | |
| T34 | Tank No. 34, Chemical Storage; 10,000 gal | |
| T35 | Tank No. 35, Chemical Storage; 6,000 gal | |
| T36 | Tank No. 36, Chemical Storage; 10,600 gal | |
| T37 | Tank No. 37, Chemical Storage; 12,100 gal | |
| T38 | Tank No. 38, Asphalt Cement; 4,220,000 gal | Product throughput limits. Sulfa Treat system for odors. |
| T39 | Tank No. 39, Distillate Oil; 13,500 gal | Product throughput limits |
| T40 | Tank No. 40, Chemical Storage; 21,300 gal | |
| T41 | Tank No. 41, Asphalt Emulsion; 16,900 gal | Product throughput limits. Sulfa Treat system for odors. |
| T42 | Tank No. 42, Chemical Storage; 4,100 gal | Product throughput limits |
| T43 | Tank No. 43, Chemical Storage; 8,800 gal | |
| T44 | Tank No. 44, Chemical Storage; 4,800 gal | |
| T45 | Tank No. 45, Chemical Storage; 8,800 gal | |
| T46 | Tank No. 46, Phosphoric Acid; 6,000 gal | |
| T47 | Tank No. 47, Chemical Storage; 10,500 gal | |
| T48 | Tank No. 48, Polymer Modified Asphalt Cement; 192,500 gal | |
| T49 | Tank No. 49, Asphalt Cement; 1,322,000 gal | Product throughput limits. Sulfa Treat system for odors. |

| Emission Unit /ID No. | Description | Control Measures |
|---|---|---|
| T50 | Tank No. 50, Asphalt Cement; 1,322,000 gal | Product throughput limits. Sulfa Treat system for odors. |
| T51 | Tank No. 51, Polymer Modified Asphalt Cement; 51,100 gal | |
| T52 | Tank No. 52, Chemical Storage; 9953 gal | Product throughput limits |
| T53 | Tank No. 53, Chemical Storage; 7520 gal | |
| H1 | Hot Oil Heater, 14.5 MMBtu/hr, natural gas-fired | Fuel throughput limit, no control devices |
| B3 | Boiler, Sellers Model 105E, 17 MMBtu/hr, serial no. 103787, natural gas-fired | |
| R1 | Reclaim Tank | |
| PW | 2 – Parts washers | |
| | Emulsion Mill 1 | |
| | Emulsion Mill 2 | |
| | Asphalt reclaim pot | |
| SH1 | Space Heater, 0.080 MMBtu/hr, natural gas-fired | no control device |
| OH1 | Oil Heater, 0.300 MMBtu/hr, distillate oil-fired | no control device |
| | Waste-oil burner | |
| | QA/QC lab and associated equipment | |
| | Process water tank | |
| **Fugitive VOC/Odor Emissions Sources** | | |
| | Truck Loading Rack 1; Asphalt Cement Loading Arm | Product throughput limits. Sulfa Treat system for odors. |
| | Truck Loading Rack 2; Asphalt Cement Loading Arm | |
| | Truck Loading Rack 3; Asphalt Cutback Loading Arm | |
| | Truck Loading Rack 4; Asphalt Emulsion Loading Arm | Product throughput limits |
| | Truck Loading Rack 5; Asphalt Emulsion Loading Arm | Product throughput limits |
| FUG | Equipment Fugitives (e.g., pumps, valves, flanges, connectors) | no control devices |
| RAIL | Railcar Heating | no control devices |
| **Fugitive Dust Emissions Sources** | | |
| | Equipment used by maintenance crews | Reasonable Control of fugitive dust |
| | Welding and cutting torches | Reasonable Control of fugitive dust |
| ROAD | Plant vehicles | Reasonable Control of fugitive dust |

## 3.2 Emissions Inventory

SemMaterials has provided detailed emissions estimates for the facility in the permit application. Table 3.2 provides a summary of the estimated controlled emission rates allowed by this permit for criteria air pollutants. The estimates have been reviewed and found to be consistent with DEQ methods and procedures.

The potential to emit (PTE) for this facility is based upon the physical and operational design of the equipment installed and the allowable material throughput limits in the permit. The only changes affecting PTE of criteria and toxic/hazardous air pollutant (TAP/HAP) emissions are the boiler changes and changes to the throughput limits for naphtha, which was reduced from 9,000,000 gallons per year (gal/yr) to 1,000,000 gal/yr. The boiler changes include replacement of two existing boilers with one new boiler. In particular, the new Sellers boiler has a rated input capacity of 17 MMBtu/hr, and the two

Kewanee boilers that were replaced each has a rated input capacity of 16.74 MMBtu/hr, which results in an overall decreased natural gas firing rate of 16.5 MMBtu/hr (16.74 + 16.74 - 17 = 16.5 reduction). SemMaterials has also taken measures to reduce emissions of odor causing pollutants as described in the regulatory review section below.

Based on the changes described above, potential emissions of criteria and TAP/HAP emissions from the facility are reduced from what was allowed in the previous permit. The facility's total estimated controlled HAP emissions rate is 1.35 tons per year (T/yr) for all HAPs combined, which remains well below the major source level of 25 T/yr.

**Table 3.2 EMISSIONS ESTIMATES OF CRITERIA POLLUTANTS**

| Emissions Unit | $PM_{10}$ | | $SO_2$ | | NOx | | CO | | VOC | | LEAD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | lb/hr | T/yr | lb/hr | T/yr | lb/hr | T/yr | lb/hr | T/yr | lb/hr | T/yr | lb/quarter |
| **Point Sources Affected by the Permitting Action** | | | | | | | | | | | |
| Hot Oil Heater | 0.11 | 0.48 | 0.01 | 0.04 | 1.43 | 6.25 | 1.20 | 5.25 | 0.08 | 0.34 | 0.00 |
| Boiler | 0.13 | 0.55 | 0.01 | 0.04 | 1.67 | 7.30 | 1.40 | 6.13 | 0.09 | 0.40 | 0.00 |
| Space Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.05 | 0.01 | 0.04 | 0.00 | 0.00 | 0.00 |
| Oil Heater | 0.00 | 0.02 | 0.15 | 0.67 | 0.04 | 0.19 | 0.01 | 0.05 | 0.00 | 0.00 | 0.00 |
| All Tanks | --- | --- | --- | --- | --- | --- | --- | --- | 1.54 | 6.86 | --- |
| Reclaim Tank | --- | --- | --- | --- | --- | --- | --- | --- | 0.00 | 0.00 | --- |
| Parts Washer | | | | | | | | | 0.28 | 1.21 | --- |
| **Total, Point Sources** | --- | 1.05 | --- | 0.75 | --- | 13.8 | --- | 11.5 | --- | 8.81 | 0.00 |
| **Process Fugitive/Volume Sources affected by the Permitting Action** | | | | | | | | | | | |
| Loading Rack | --- | --- | --- | --- | --- | --- | --- | --- | 0.63 | 2.76 | --- |
| Equipment Fugitives | --- | --- | --- | --- | --- | --- | --- | --- | 0.40 | 1.77 | --- |
| Railcar Heating | --- | --- | --- | --- | --- | --- | --- | --- | 0.00 | 0.00 | --- |
| Roads | 0.05 | 0.33 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total, Process Fugitives** | 0.05 | 0.33 | --- | --- | --- | --- | --- | --- | --- | 4.53 | --- |
| **Facility-wide Total Emissions (Point Sources plus Fugitive Sources)** | | | | | | | | | | | |
| **Total Emissions** | --- | 1.87 | --- | 0.75 | --- | 13.8 | --- | 11.5 | --- | 13.3 | 0.00 |
| **Total Emissions Increase** | --- | 0.00 | --- | 0.00 | --- | 0.00 | --- | 0.00 | --- | 0.00 | 0.00 |

## 3.3 *Ambient Air Quality Impact Analysis*

A modeling analysis to assess ambient air quality impacts is not required for this permit renewal since potential emissions of criteria and toxic emissions will not increase as a result of issuance of this permit.

# 4. REGULATORY REVIEW

## 4.1 Attainment Designation (40 CFR 81.313)

The facility is located in Ada County which is designated as attainment for CO and $PM_{10}$, and unclassifiable for $PM_{2.5}$, $NO_2$, $SO_X$, and Ozone. Reference 40 CFR 81.313.

It is noted that the Treasure Valley airshed, in which this facility is located, is still designated as an attainment or unclassifiable area. However, there is concern that the airshed could be designated as non-attainment in the near future as a result of growth in this area and EPA's recently revised NAAQS standards for ozone. At this time, there are no applicable requirements for the facility with regard to this situation; however, it is recognized that SemMaterials has voluntarily taken measures to substantially reduce VOC and $NO_x$ emissions that will reduce ozone impacts from this facility.

## 4.2 Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)

The facility is not a designated facility as defined in IDAPA 58.01.01.30. The facility is classified as a synthetic minor (SM) source because the existing emissions estimates have showed it to have the potential to emit over 100 T/yr of VOCs, but the facility is limited through federally enforceable permit requirements to 10 T/yr. The AIRS/AFS facility classification is SM.

## 4.3 NSPS Applicability (40 CFR 60)

The replacement boiler has a rated input capacity of less than or equal to 100 MMBtu/hr and greater than or equal to 10 MMBtu/hr, and it was manufactured after June 9, 1989. The boiler is, therefore, an emission unit subject to the requirements of 40 CFR Subparts A and Dc. The only substantive requirements that apply are monitoring natural gas usage rates and future reporting of changes that may increase emissions. In a letter dated January 30, 2008, SemMaterials provided the NSPS initial construction and startup notifications per 40 CFR 60.48c(a) and 40 CFR 60.7. There are no emission rate limits or opacity limits for a natural gas fired boiler with a rated input capacity of 17 MMBtu/hr. Numerous tanks at the facility remain subject to Subparts K and Kb, and this is described in the "Summary of the Point Sources" list in the Permitting Technical Memorandum, issued on March 14, 2003 for the previously issued Tier II permit. A copy of this list is included in Appendix B for convenient reference.

## 4.4 NESHAP Applicability (40 CFR 61)

NESHAP requirements do not apply to this facility.

## 4.5 MACT Applicability (40 CFR 63)

MACT requirements do not apply to this facility.

## 4.6 CAM Applicability (40 CFR 64)

Compliance Assurance Monitoring (CAM) program requirements do not apply to this facility since it is not classified as a major facility under the Title V program.

## 4.7 Toxic Air Pollutants (IDAPA 58.01.01.210)

The facility is demonstrating preconstruction compliance with the toxic rules by netting emissions in accordance with IDAPA 58.01.01.210.09. There have been no increases of allowable toxic air pollutant emissions the last five years at the facility, and the emissions increases of toxic air pollutants from the new boiler are offset by the emission decreases from the two existing boilers to the extent that the facility's maximum potential TAP emissions after this project will be slightly lower. The emissions reductions from the shutdown of the existing boilers are creditable since the two existing boilers have been permanently shut down, rendered inoperable or removed.

## 4.8 Visible Emissions (IDAPA 58.01.01.625)

The visible emissions standard continues to apply to all point sources at the facility, including the new boiler.

## 4.9 PM Standard for Fuel Burning Equipment (IDAPA 58.01.01.676)

The particulate matter emissions standard of 0.15 grains per dry standard cubic foot of exhaust applies to the new boiler as it did for the existing boilers. Compliance with this rule for a natural gas fired boiler has already been demonstrated; therefore, no changes to the permit are necessary.

## 4.10 Rules for Control of Odors (IDAPA 58.01.01.775)

For industrial activities that handle asphalt materials, including the SemMaterials Boise Terminal, odors emitted from the process are an issue of concern. This includes consideration of increased "actual" production rates and emissions associated with that activity as a result of growth, even though the maximum permit throughput limits remain unchanged. In response to this concern, SemMaterials has proposed to upgrade the existing odor control system. The revised odor control system will actually consist of three separate systems as described in the permit application.

- System 1, a Sulfa-Treat system covering the PMAC production and shipping (Tanks 4 - 9, 12, 13, and 51; and Loading Racks 2 and 3), and will consist of a mist eliminator and solids filtration unit.
- System 2 will be a new Sulfa-Treat system replacing the existing Mtarri system. It will serve bulk asphalt cement storage and shipping (Tanks 1, 2, and 38; and Loading Rack 1).
- System 3 will be a new Sulfa-Treat system replacing the existing Mtarri system to serve Tanks 41, 49 and 50.

## 4.11 Permit Conditions Review

This section describes only those permit conditions (PC) that have been added, revised, modified or deleted as a result of this permitting action. All other permit conditions remain unchanged.

**Revised PC 1.3**

Table 1.1, the list of emissions sources at the facility, was revised to correspond to the renewal permit application and to correspond to the same list shown in Section 3 of this statement of basis. Note that although not all sources have specific permit conditions that apply, all must still comply with the Facility-wide Conditions and General Provisions in the permit. In addition, a statement was added to the permit condition to make it clear that this information is "for informational purposes only" and not intended to be an enforceable condition of the permit.

**Revised Sections 2 and 5, Revised Facility-wide Conditions and General Provisions**

The most current versions of the Tier II Facility-wide Conditions and the General Provisions were used in the renewal permit.

**New PCs 2.6 and 2.7**

To be consistent with current methods for managing odors from industrial facilities, Permit Condition 2.6 specifies the procedures for developing and maintaining an effective odor management plan, and Permit condition 2.7 establishes periodic reporting to DEQ's Regional Office regarding the status of odor complaints. The permit requirement is written in a manner that provides the flexibility when writing the site-specific odor management plan. For purposes of promoting the use of an up-to-date and effective plan, it may be modified when necessary without requiring a permit modification.

**New PC 2.12**

To make all applicable requirements for affected facilities under the NSPS program more apparent, the general requirements under 40 CFR 60 Subpart A were added to the permit.

**Revised PC 3.3**

The VOC emissions limits in Appendix A for the combined storage tanks stack were revised to correspond to the current operational information provided and used in the analyses in the permit application. Instead of expressing the limit as pounds per hour based on a 24-hour average, the limit was expressed as a simple pounds per day limit which is equivalent. The limit was determined as follows:

VOC = 1.54 lb/hr * 24 hr/day = 37 lb/day

**Revised PC 3.4**

The maximum annual throughput of naphtha was reduced from 9,000,000 to 1,000,000 gallons per any consecutive 12-month period as described in the permit application.

**Revised PC 3.6**

The last sentence of the third paragraph was deleted consistent with changes issued by EPA on October 15, 2003 in 68 FR 59333, as follows: "Each storage vessel with a design capacity less than 75 m3 is subject to no provision of this subpart other than those required by this paragraph."

**Revised PC 4.3**

The combined CO, VOC, and $SO_2$ emissions limits for the new Sellers boiler and oil heater were removed from the permit for the following reasons: because for natural gas-firing the resultant emissions rates are so small; the estimated emissions do not result in estimated ambient impacts that are close to any limits based on a review of the modeling conducted for the previous Tier II permit; and because they are so small they will have a minimal affect with regard on-going efforts to maintain NAAQS compliance within the airshed. With regard to the airshed, this is in reference to the fact that presently there are SIP Maintenance Plans in effect for CO and $PM_{10}$, and at least one measured ambient exceedance of the ozone standards has already occurred, which is a concern, given the rapid growth occurring within the Treasure Valley airshed. The emissions limits for $PM_{10}$ and $NO_x$ were revised in Appendix A for the combined emissions from the Sellers boiler and oil heater to correspond to the current operational information provided and used in the analyses in the permit application. Instead of expressing the $PM_{10}$ short term limit as pounds per hour based on a 24-hour average (corresponding to the 24-hr average $PM_{10}$ NAAQS), the limit was expressed as a simple pounds per day limit which is equivalent. The limit was determined as follows:

$PM_{10}$ = 0.24 lb/hr * 24 hr/day = 5.8 lb/day

**New PCs 4.6 and 4.7**

These permit conditions summarize and incorporate the New Source Performance Standard (NSPS) requirements under 40 CFR 60 Subparts A and Dc that apply to the new Sellers boiler. In particular, requirements that apply are monitoring of the natural gas usage rate and notification of any physical and operational changes which may increase emissions the conditions. These permit conditions do not include any requirements beyond those of the NSPS.

**Revised PC 5.3**

The VOC emissions limits in Appendix A for the loading racks were revised to correspond to the current operational information provided and used in the analyses in the permit application. Instead of expressing the limit as pounds per hour based on a 24-hour average, the limit was expressed as an equivalent pounds per day limit. The limit was determined as follows:

VOC = 0.63 lb/hr * 24 hr/day = 15 lb/day

**Revised PC 5.5**

The condition was changed to clarify that it is the "loading rack" throughput that needs to be monitored and recorded.

## 5. FEE REVIEW

A Tier II operating permit processing fee must be paid to DEQ in accordance with IDAPA 58.01.01.407 by the permittee receiving a Tier II operating permit. SemMaterials' fee is $10,000.00 because it is a "synthetic minor stationary source with permitted emissions below a major threshold level." $5000.00 of the processing fee was received on May 14, 2008.

**Table 5.1 Tier II Processing Fee Table**

| Emissions Inventory | |
|---|---|
| **Pollutant** | **Permitted Emissions** |
| $NO_X$ | 13.8 |
| $SO_2$ | 0.8 |
| CO | 11.5 |
| $PM_{10}$ | 1.1 |
| VOC | 8.8 |
| TAPs/HAPs | 1.4 |
| Total: | 37.4 |
| Synthetic Minor Facility (Y/N) | Y |
| Fee Due | **$ 10,000.00** |

## 6. PUBLIC COMMENT

In accordance with IDAPA 58.01.01.404.04, a public comment period is not required because the proposed project is a permit renewal with no authorized increase in allowable emissions.

KH/hp Permit No. T2-2008.0039

# APPENDIX A – AIRS INFORMATION

# *AIRS/AFS[a] FACILITY-WIDE CLASSIFICATION[b] DATA ENTRY FORM*

**Facility Name:** SemMaterials, Boise Terminal
**Facility Location:** Boise, Idaho
**AIRS Number:** 001-00049

| AIR PROGRAM POLLUTANT | SIP | PSD | NSPS (Part 60) | NESHAP (Part 61) | MACT (Part 63) | SM80 | TITLE V | AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment |
|---|---|---|---|---|---|---|---|---|
| $SO_2$ | B | | | | | | | U |
| $NO_x$ | B | | | | | | | U |
| CO | B | | | | | | | A |
| $PM_{10}$ | B | | | | | | | A |
| PT (Particulate) | B | | | | | | | --- |
| VOC | SM | | X | | | | | Ozone = U |
| THAP (Total HAPs) | B | | | | | | | --- |
| | | | APPLICABLE SUBPART | | | | | |
| | | | K, Kb, Dc | | | | | |

[a] Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

[b] AIRS/AFS Classification Codes:

A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, **or** each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.

SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.

B = Actual and potential emissions below all applicable major source thresholds.

C = Class is unknown.

ND = Major source thresholds are not defined (e.g., radionuclides).

# APPENDIX B – SUMMARY OF THE POINT SOURCES

SUMMARY OF THE POINT SOURCES
(This is a copy from the Air Quality Permitting Technical Memorandum dated March 14, 2003 that contains NSPS applicability information for the tanks.)

Fuel Burning Equipment

1. Boiler No.1 – Natural gas fired with a maximum rated capacity of 16.74MMBTU/hr. The boiler was constructed in 1975 and it is not a NSPS source.

| Boiler Specifications: | |
|---|---|
| Manufacturer: | Kewanee |
| Model: | H3S-400-GO |
| Max. Hourly Combustion Rate: | $15.9x10^3$ SCF/hr |
| Fuel: | Natural Gas |
| Secondary Fuel: | None |

| Stack Design Specifications: | |
|---|---|
| Height: | 24 Feet |
| Exit Diameter: | 2.0 Feet |
| Exit Gas Flow Rate: | Unknown |
| Exit Temperature: | 400°F |

2. Boiler No.2 – Natural gas fired with a maximum rated capacity of 16.74MMBTU/hr. The boiler was constructed in 1975 and it is not a NSPS source.

| Boiler Specifications: | |
|---|---|
| Manufacturer: | Kewanee |
| Model: | H3S-400-GO |
| Max. Hourly Combustion Rate: | $15.9x10^3$ SCF/hr |
| Fuel: | Natural Gas |
| Secondary Fuel: | None |

| Stack Design Specifications: | |
|---|---|
| Height: | 24 Feet |
| Exit Diameter: | 2.0 Feet |
| Exit Gas Flow Rate: | Unknown |
| Exit Temperature: | 400°F |

3. Hot Oil Heater – Natural gas fired with a maximum rated capacity of 14.5MMBRU/hr. The heater was constructed in 2001.

| Hot Oil Heater Specifications: | |
|---|---|
| Manufacturer: | American |
| Model: | AHE-1200 |
| Max. Hourly Combustion Rate: | $13.8x10^3$ SCF/hr |
| Fuel: | Natural Gas |
| Secondary Fuel: | None |

| Stack Design Specifications: | |
|---|---|
| Height: | 24 Feet |
| Exit Diameter: | 2.0 Feet |
| Exit Gas Flow Rate: | Unknown |
| Exit Temperature: | 400°F |

Storage Tanks

Tank No.1- Fixed roof tank with a rated capacity of 2,121,077 gallons. The tank was installed in 1991 and is a NSPS source. The tank is subject to 40 CFR 60 subpart Kb. The tank will not be regulated by the regulation due to the low true vapor pressure of asphalt cement except for § 60.116b, a & b.

TankNo.1 Specifications:

| | |
|---|---|
| Material Handling: | Asphalt Cement |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 2,121,007gallons |

Tank No.2- Fixed roof tank with a rated capacity of 1,070,821 gallons. The tank was installed in 1975 and is a NSPS source. The tank is subject to 40 CFR 60 subpart K.

TankNo.2 Specifications:

| | |
|---|---|
| Material Handling: | Asphalt Cement |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 1,070,821gallons |

Tank No.4, No.5, No.6, No.7, No.9, No.17 - Fixed roof tank with a rated capacity of 105,760 gallons. The tank was installed in 1975 and is a NSPS source. The tank is subject to 40 CFR 60 subpart K.

Tank No.4, No.5, No.6, No.7, No.9, No.17 Specifications:

| | |
|---|---|
| Material Handling: | Asphalt Cement |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 105,760 gallons |

Tank No.8- Fixed roof tank with a rated capacity of 50,000 gallons. The tank was installed in 1980 and is a NSPS source. The tank is subject to 40 CFR 60 subpart Kb. This tank will not be regulated by the requirements due to the low true vapor pressure of asphalt cutback except for § 60.116b, a & b.

TankNo.8 Specifications:

| | |
|---|---|
| Material Handling: | Asphalt Cutback |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 50,000 gallons |

Tank No.10- Fixed roof tank with a rated capacity of 13,514 gallons. The tank was installed in 1985 and is a NSPS source. The tank is subject to 40 CFR 60 subpart Kb. This tank will not be regulated by the requirements due to the low true vapor pressure of asphalt cutback except for § 60.116b, a & b.

TankNo.8 Specifications:

| | |
|---|---|
| Material Handling: | Naphtha |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 13,514 gallons |

Tank No.12 - Fixed roof tank with a rated capacity of 49,384 gallons. The tank was installed in 1975 and is a NSPS source. The tank is subject to 40 CFR 60 subpart K.

Tank No.12 Specifications:

| | |
|---|---|
| Material Handling: | Asphalt Cutback |
| Tank Type: | Fixed Roof |

Tank Capacity: 49,384 gallons

Tank No.13 - Fixed roof tank with a rated capacity of 105,760 gallons. The tank was installed in 1975 and is a NSPS source. The tank is subject to 40 CFR 60 subpart K.

Tank No.13 Specifications:
Material Handling: Asphalt Cutback
Tank Type: Fixed Roof
Tank Capacity: 105,760 gallons

Tank No.14 - Fixed roof tank with a rated capacity of 49,384 gallons. The tank was installed in 1975 and is a NSPS source. The tank is subject to 40 CFR 60 subpart K.

Tank No.14 Specifications:
Material Handling: Naphtha
Tank Type: Fixed Roof
Tank Capacity: 49,384 gallons

Tank No.15 - Fixed roof tank with a rated capacity of 49,384 gallons. The tank was installed in 1975 and is a NSPS source. The tank is subject to 40 CFR 60 subpart K.

Tank No.15 Specifications:
Material Handling: Asphalt Cement
Tank Type: Fixed Roof
Tank Capacity: 49,384 gallons

Tank No.16 - Fixed roof tank with a rated capacity of 79,384 gallons. The tank was installed in 1975 and is a NSPS source. The tank is subject to 40 CFR 60 subpart K.

Tank No.16 Specifications:
Material Handling: Asphalt Cutback
Tank Type: Fixed Roof
Tank Capacity: 79,384 gallons

Tank No.18, No.20, No.22, No.23, and No.24 - Fixed roof tank with a rated capacity of 49,384 gallons. The tank was installed in 1975 and is a NSPS source. The tank is subject to 40 CFR 60 subpart K.

Tank No.18, No.20, No.22, No.23, and No.24 Specifications:
Material Handling: Asphalt Emulsion
Tank Type: Fixed Roof
Tank Capacity: 49,384 gallons

Tank No.19 - Fixed roof tank with a rated capacity of 38,074 gallons. The tank was installed in 1975 and is not a NSPS source.

Tank No.19 Specifications:
Material Handling: Asphalt Emulsion
Tank Type: Fixed Roof
Tank Capacity: 38,074 gallons

Tank No.21 - Fixed roof tank with a rated capacity of 67,686 gallons. The tank was installed in 1975 and is a NSPS source. The tank is subject to 40 CFR 60 subpart K.

Tank No.21 Specifications:
Material Handling: Asphalt Emulsion
Tank Type: Fixed Roof

Tank Capacity: 67,686 gallons

Tank No.25 - Fixed roof tank with a rated capacity of 59,261 gallons. The tank was installed in 1975 and is a NSPS source. The tank is subject to 40 CFR 60 subpart K.

Tank No.25 Specifications:

| | |
|---|---|
| Material Handling: | Asphalt Emulsion |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 59,261 gallons |

Tank No.26 and No.27 - Fixed roof tank with a rated capacity of 30,083 gallons. The tank was installed in 1975 and is not a NSPS source.

Tank No.26 and No.27 Specifications:

| | |
|---|---|
| Material Handling: | Asphalt Cement |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 30,083 gallons |

Tank No.28 - Fixed roof tank with a rated capacity of 24,066 gallons. The tank was installed in 1975 and is not a NSPS source.

Tank No.28 Specifications:

| | |
|---|---|
| Material Handling: | No.1 Fuel Oil |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 24,066 gallons |

Tank No.29 - Fixed roof tank with a rated capacity of 21,328 gallons. The tank was installed in 1985 and is a NSPS source. The tank is subject to 40 CFR 60 subpart Kb. The tank will not be regulated by the requirements due to the low true vapor pressure of No.2 fuel oil except for § 60.116b, a & b.

Tank No.29 Specifications:

| | |
|---|---|
| Material Handling: | No.2 Fuel Oil |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 21,328 gallons |

Tank No.38 - Fixed roof tank with a rated capacity of 4,220,061 gallons. The tank was installed in 1995 and is a NSPS source. The tank is subject to 40 CFR 60 subpart Kb. The tank will not be regulated by the requirements due to the low true vapor pressure of asphalt cement except for § 60.116b, a & b.

Tank No.38 Specifications:

| | |
|---|---|
| Material Handling: | Asphalt Cement |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 4,220,061 gallons |

Tank No.39 - Fixed roof tank with a rated capacity of 12,000 gallons. The tank was installed in 1997 and is a NSPS source. The tank is subject to 40 CFR 60 subpart Kb. The tank will not be regulated by the requirements due to the low true vapor pressure of No.2 fuel oil except for 40 CFR 60.116b, a & b.

Tank No.39 Specifications:

| | |
|---|---|
| Material Handling: | No.2 Diesel Oil |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 12,000 gallons |

Tank No.46 - Fixed roof tank with a rated capacity of 6,000 gallons. The tank was installed in 2000 and is a not NSPS source.

Tank No.46 Specifications:

| | |
|---|---|
| Material Handling: | Polyphosphoric Acid |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 6,000 gallons |

Tank No.48 - Fixed roof tank with a rated capacity of 192,500 gallons. The tank was installed in 2000 and is a NSPS source. The tank is subject to 40 CFR 60 subpart Kb. The tank will not be regulated by the requirements due to the low true vapor pressure of asphalt cement except for § 60.116b, a & b.

Tank No.48 Specifications:

| | |
|---|---|
| Material Handling: | Asphalt Cement |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 192,500 gallons |

Tank No.49 - Fixed roof tank with a rated capacity of 1,322,000 gallons. The tank was installed in 2001 and is a NSPS source. The tank is subject to 40 CFR 60 subpart Kb. The tank will not be regulated by the requirements due to the low true vapor pressure of asphalt cement except for § 60.116b, a & b.

Tank No.49 Specifications:

| | |
|---|---|
| Material Handling: | Asphalt Cement |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 1,322,000 gallons |

Tank No.50 - Fixed roof tank with a rated capacity of 1,322,000 gallons. The tank was installed in 2001 and is a NSPS source. The tank is subject to 40 CFR 60 subpart Kb. The tank will not be regulated by the requirements due to the low true vapor pressure of asphalt cement except for § 60.116b, a & b.

Tank No.50 Specifications:

| | |
|---|---|
| Material Handling: | Asphalt Cement |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 1,322,000 gallons |

Tank No.51 - Fixed roof tank with a rated capacity of 58,100 gallons. The tank was installed in 2001 and is a NSPS source. The tank is subject to 40 CFR 60 subpart Kb. The tank will not be regulated by the requirements due to the low true vapor pressure of asphalt cement except for § 60.116b, a & b.

Tank No.51 Specifications:

| | |
|---|---|
| Material Handling: | Asphalt Cement |
| Tank Type: | Fixed Roof |
| Tank Capacity: | 58,100 gallons |

Loading Racks

Loading Rack No.1 and No.2 – Asphalt Cement loading arm. These racks were installed in 1975.

Loading Rack Specifications

| | |
|---|---|
| Material Handling: | Asphalt Cement |
| Type of Loading | Over head loading – splash fill, normal service |
| Total Annual Throughput | 50,000,000 gallons |

Loading Rack No.3 – Asphalt Cutback loading arm. This rack was installed in 1975.

Loading Rack Specifications

| | |
|---|---|
| Material Handling: | Asphalt Cutback |
| Type of Loading: | Over head loading – splash fill, normal service |
| Total Annual Throughput: | 15,000,000 gallons |

Loading Rack No.4 and No.5 – Asphalt Emulsion loading arm. These racks were installed in 1975.

Loading Rack Specifications

| | |
|---|---|
| Material Handling: | Asphalt Emulsion |
| Type of Loading: | Over head loading – splash fill, normal service |
| Total Annual Throughput: | 50,000,000 gallons |

Minor Source:

Waste Oil Burner

| | |
|---|---|
| Manufacturer: | Clean Burn |
| Model: | CB-85-C |
| Maximum Capacity: | 300,000 BTU/hr |

Fugitive Sources:

1. Pumps, values, and fittings.
2. Paved and Unpaved Roads.