



Louisville Metro Air Pollution Control District  
 701 West Ormsby Avenue, Suite 303  
 Louisville, Kentucky 40203-3137



**16 MAY 2017**

**Title V Statement of Basis**

**Owner/Source:** Sam Meyers, Inc.

**Plant Location:** 3400 Bashford Avenue Court, Louisville, Kentucky 40218-3136

**Date Application Received:** See Section 8

**Date Admin Complete:** 8/11/2016

**Date of Draft Permit:** 04/06/ 2017

**Date of Proposed Permit:** 04/06/2017

**District Engineer:** Elise Venard

**Permit No:** O-0989-17-V

**Plant ID:** 0989

**SIC Code:** 7216

**NAICS:** 81232

**AFS:** 00989

**Introduction:**

This permit will be issued pursuant to: (1) Regulation 2.16, (2) Title 40 of the Code of Federal Regulations Part 70, and (3) Title V of the Clean Air Act Amendments of 1990. Its purpose is to identify and consolidate existing District and Federal air requirements and to provide methods of determining continued compliance with these requirements.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), 1 hr and 8 hr ozone (O<sub>3</sub>), particulate matter less than 10 microns (PM<sub>10</sub>); and unclassifiable for the 2012 standard for particulate matter less than 2.5 microns (PM<sub>2.5</sub>) and partial non-attainment area for sulfur dioxide (SO<sub>2</sub>)

**Application Type/Permit Activity:**

- Initial Issuance
- Permit Revision
  - Administrative
  - Minor
  - Significant
- Permit Renewal

**Compliance Summary:**

- Compliance certification signed
- Compliance schedule included
- Source is out of compliance
- Source is operating in compliance

**I. Source Information**

1. **Product Description:** The source performs dry cleaning using both petroleum solvent and perchloroethylene.
2. **Process Description:** The source receives and dry cleans garments.
3. **Site Determination:** There are no other facilities that are contiguous or adjacent and under common control.
4. **Emission Unit Summary:**

Emission Unit	Equipment Description
U2	Dry-to-dry petroleum solvent dry cleaning machine
U3	Perchloroethylene dry-to-dry cleaning system Unit 1
U4	Perchloroethylene dry-to-dry cleaning system Unit 2
1.A.1	Boiler

5. **Fugitive Sources:** The equipment vents inside the building.
6. **Permit Revisions:**

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
NA	91-97-TV	1/15/2000	11/21/1999	Initial	Entire permit	Initial permit issuance
R1	91-97-TV (R1)	12/22/2011	11/06/2011	Renewal	Entire permit	5 year renewal, incorporating construction permits # 02-06-C, 162-09-C, and removal of Emission Unit U1
NA	O-0989-17-V	05/16/2017	04/06/2017	Renewal	Entire permit	Renewal

7. **Construction Permit History:**

Permit No.	Issue Date	Description
NA		

**8. Permit Renewal-Related Documents:**

<b>Document Number</b>	<b>Date Received</b>	<b>Description</b>
78667	08/01/2016	Permit renewal application
78841	08/09/2016	Addendum to renewal application
78859	08/11/2016	Application Administratively complete letter
79532	08/16/2016	Kentucky Secretary of State Certificate of Existence
80370	11/07/2016	Notice of Deficiency Boiler MACT requirements
80374	11/07/2016	Pre-Draft permit sent to company for review
80400	11/08/2016	Initial Notification for Boiler MACT
80405	11/09/2016	Letter Explaining why Boiler MACT is applicable
80596	11/23/2016	Follow-up letter to company about Boiler MACT requirements
81427	01/24/2017	More follow-up emails regarding Boiler MACT
81442	01/25/2017	More follow-up emails regarding Boiler MACT
81497	01/30/2017	Company Compliance Plan for Boiler MACT
82391	03/06/2017	More follow-up emails regarding Boiler MACT
82594	03/14/2017	More follow-up emails regarding Boiler MACT
83254	03/14/2017	More follow-up emails regarding Boiler MACT
83227	03/31/2017	Notice of Compliance Status regarding Boiler MACT

**9. Emission Summary:**

<b>Pollutant</b>	<b>District Calculated Actual Emissions (tpy) 2015 Emission Inventory Data</b>	<b>Pollutant that triggered Major Source Status (based on PTE)</b>
<b>CO</b>	0.0	No
<b>NO<sub>x</sub></b>	0.0	No
<b>SO<sub>2</sub></b>	0.0	No
<b>PM<sub>10</sub></b>	0.0	No
<b>VOC</b>	0.46	No

Pollutant	District Calculated Actual Emissions (tpy) 2015 Emission Inventory Data	Pollutant that triggered Major Source Status (based on PTE)
<b>Total HAPs</b>	1.227	Yes
Perchloroethylene	1.21	Yes
<b>Greenhouse Gas</b>	0.0	No

**10. Applicable Requirements:**

- PSD       40 CFR 60       SIP       40 CFR 63  
 NSR       40 CFR 61       District-Origin       Other

**11. Referenced MACT Federal Regulations:**

- 40 CFR 63 Subpart M      National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities
- 40 CFR 63 Subpart DDDDD      National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

**12. Referenced non-MACT Federal Regulations:** None

**II. Regulatory Analysis**

- Acid Rain Requirements:** The source is not subject to the Acid Rain Program.
- Stratospheric Ozone Protection Requirements:** Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. This source does not manufacture, sell, or distribute any of the listed chemicals. The source’s use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.
- Prevention of Accidental Releases 112(r):** The source does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, Chemical Accident Prevention Provisions, in a quantity in excess of the corresponding specified threshold amount. Therefore, the source is required to develop and implement a Risk Management Plan pursuant to 40 CFR 68, Subpart G and Regulation 5.15.
- 40 CFR Part 64 Applicability Determination:** The source is not subject to 40 CFR Part 64

**5. Basis of Regulation Applicability**

**a. Plant-wide**

Sam Meyers, Inc. is a major source for single HAP, and total HAPs. Regulation 2.16 – *Title V Operating Permits* establishes requirements for major sources. Sam Meyers, Inc. is not a GHG major source.

Sam Meyers is exempt from STAR program since it operates dry cleaners only.

Regulation 2.16, section 4.1.9.1 and 4.1.9.2 requires monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the District upon request.

Regulation 2.16, section 4.3.5, requires stationary sources for which a Title V is issued shall submit an annual compliance certification by April 15 of the following calendar year. In addition, as required by Regulation 2.16, section 4.1.9.3, the source shall submit compliance reports at least every six months to show compliance with the permit. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.16, section 3.5.11.

**b. Emission Unit U2 - DF-2000 Dry-to-Dry Unit**

**i. Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
E6	One (1) DF2000 dry to dry petroleum solvent dry cleaning machine. Make: Union. Model: HL-780.	7.25	Regulation 7.25 applies to each affected facility with VOC emissions and commenced after June 13, 1979.

**ii. Standards/Operating Limits**

**1) VOC**

- (a) Regulation 7.25, section 3.1 limits the plantwide VOC emissions to 17.03 tons per 12-consecutive month period and the source is considered BACT since the machine is dry-to-dry.

c. **Emission Unit U3 - Perchloroethylene dry-to-dry cleaning system Unit 1**

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
E11	One (1) perchloroethylene dry-to-dry cleaning machine, Make: Realstar, Model: M-8039516. Installed July, 2005.	7.25  40 CFR 63 Subpart M	Regulation 7.25 applies to each affected facility with VOC emissions and commenced after June 13, 1979  40 CFR 63 Subpart M applies to perchloroethylene dry cleaning systems

ii. **Standards/Operating Limits**

1) **HAP**

(a) 40 CFR 63, Subpart M, and Regulation 5.02 section 4.12 establish emission/operating standards for perchloroethylene dry cleaning machines.

2) **VOC**

(a) Regulation 7.25 requires plant-wide VOC emissions be limited to 17.03 tons per 12-consecutive month period. The District has included emissions from spot cleaner usage in the existing limits of the permit for VOC operations.

iii. **Monitoring and Recordkeeping**

1) **HAP**

(a) 40 CFR 63, Subpart M, and Regulation 5.02 section 4.12 establish emission/operating monitoring and record keeping for perchloroethylene dry cleaning machines.

d. **Emission Unit U4 - Perchloroethylene dry-to-dry cleaning system Unit 2**

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
E10	One (1) perchloroethylene	7.25	Regulation 7.25 applies to each affected facility with VOC emissions and commenced after

Emission Point	Description	Applicable Regulation	Basis for Applicability
	dry-to-dry cleaning machine. Make: Union, Model: HL-790. Installed April, 1999.	40 CFR 63 Subpart M	June 13, 1979.  40 CFR 63 Subpart M applies to perchloroethylene dry cleaning systems.

ii. **Standards/Operating Limits**

1) **HAP**

- (a) 40 CFR 63, Subpart M, and Regulation 5.02 section 4.12 establish emission/operating standards for perchloroethylene dry cleaning machines.

2) **VOC**

- (a) Regulation 7.25 requires plant-wide VOC emissions be limited to 17.03 tons per 12-consecutive month period. The District has included emissions from spot cleaner usage in the existing limits of the permit for VOC operations.

iii. **Monitoring and Recordkeeping**

1) **HAP**

- (a) 40 CFR 63, Subpart M, and Regulation 5.02 section 4.12 establish emission/operating monitoring and record keeping for perchloroethylene dry cleaning machines.

**III. Other Requirements**

1. **Temporary Sources:** The source did not request to operate any temporary facilities.
2. **Short Term Activities:** The source did not report any short term activities.
3. **Emissions Trading:** N/A
4. **Operational Flexibility:** The source did not request any operational flexibility for this equipment.
5. **Compliance History:**

Date	Regulation Violated	Result
12/11/1996	Reg. 5.02, Section 2, Subpart M emission standard	Agreement
4/22/2010	Reg. 2.03, Section 5, Failure to comply with District permit Reg. 2.16, Section 5, Failure to comply with Title V permit	Agreement

**6. Calculation Methodology or Other Approved Method:**

**a. VOC**

- i. The owner or operator shall calculate the VOC emissions from the Union, model HL-780 dry-to-dry machine using DF-2000 (E6) and spot cleaner based on solvent usage and emission factors stated in the Table below.

Emission Source	VOC content	Emission Factor Sources
DF-2000	8.35 lb/gallon	District standard
Spot cleaner	7.0 lb/gallon	District standard

- ii. Using the above Emission Factor calculate the tons per year VOC emissions as follows:

$$E_{VOC} = (X)(EF \text{ lb/gallon})(1 \text{ ton}/2000 \text{ lb.})$$

Where:  $E_{VOC}$  = VOC emissions (tons)

X = the amount of solvent usage (gallons) used annually

- iii. The owner or operator shall account for the insignificant activity VOC emissions from spot cleaning when totaling the annual plant-wide emissions. Since the emissions are minor the owner or operator may use the potential VOC emissions as the annual emissions. District approved PTE is as follows:

- Realstar dry-to-dry unit (E11) = 2.72 ton VOC/year
- Union dry-to-dry unit (E-10) = 2.58 ton VOC/year

- iv. The owner or operator shall monthly calculate the VOC emissions from boiler operation based on fuel combustion and the emission factor stated in the Table below unless another method is approved in writing by the District.

Emission Source	VOC	Emission Factor Sources
Boiler burning natural gas	5.5 lb/mmcf	AP-42 Chapter 1.4-2



- v. Using the above Emission Factors calculating the tons per month VOC emissions is as follows:

$$E_{VOC} = (X)(EF \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb.})$$

Where:  $E_{VOC}$  = VOC emissions (tons) during a consecutive 12-month period

X = the amount of natural gas combusted (mmcf), during a consecutive 12-month period

- vi. The owner or operator shall account for the insignificant activity VOC emissions from Boiler 1 when totaling the annual plant-wide emissions. Since the emissions are minor the owner or operator may use the potential VOC emissions as the annual emissions. District approved PTE is as follows:

- Boiler 1 (I.A.1) = 0.13 ton VOC/year

**b. HAP**

- i. The owner or operator shall calculate the HAP emissions from the PERC dry-to-dry cleaning machines (E11, E10) and spot cleaner based on solvent usage and emission factors stated in the Table below.

Emission Source	HAP content	Emission Factor Sources
Perchloroethylene	8.35 lb/gallon	District standard
Ethylbenzene	0.25 lb/gallon	District standard
Xylene	0.86 lb/gallon	District standard

- ii. Using the above Emission Factor calculate the tons per year HAP emissions, as follows:

$$E_{HAP} = (X)(EF \text{ lb/gallon})(1 \text{ ton}/2000 \text{ lb.})$$

Where:  $E_{HAP}$  = HAP emissions (tons)

X = the amount of solvent usage (gallons) used annually

- iii. The owner or operator shall account for the insignificant activity HAP emissions from spot cleaning when totaling the annual plant-wide emissions. Since the emissions are minor the owner or operator may use the potential HAP emissions as the annual emissions. District approved PTE is as follows:

- Union, model HL-780 (E6) = 0.15 ton xylene/year
- Union, model HL-780 (E6) = 0.04 ton ethylbenzene/year

- iv. The owner or operator shall monthly calculate the HAP emissions from boiler operation based on fuel combustion and the emission factor stated in the Table below unless another method is approved in writing by the District.

Emission Source	HAP	Emission Factor Sources
Boiler burning natural gas	1.89 lb/mmcf	AP-42 Chapter 1.4-3

- v. Using the above Emission Factors calculating the tons per month HAP emissions is as follows:

$$E_{HAP} = (X)(EF \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb.})$$

Where:  $E_{HAP}$  = HAP emissions (tons) during a consecutive 12-month period

X = the amount of natural gas combusted (mmcf), during a consecutive 12-month period

- vi. The owner or operator shall account for the insignificant activity HAP emissions from Boiler 1 when totaling the annual plant-wide emissions. Since the emissions are minor the owner or operator may use the potential HAP emissions as the annual emissions. District approved PTE is as follows:

- Boiler 1 (I.A.1) = 0.045 ton HAP/year

c. **PM<sub>10</sub>**

- i. The owner or operator shall monthly calculate the PM<sub>10</sub> emissions from boiler operation based on fuel combustion and the emission factor stated in the Table below unless another method is approved in writing by the District.

Emission Source	PM <sub>10</sub>	Emission Factor Sources
Boiler burning natural gas	7.6 lb/mmcf	AP-42 Chapter 1.4-2

- ii. Using the above Emission Factors calculating the tons per month PM<sub>10</sub> emissions is as follows:

$$E_{PM10} = (X)(EF \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb.})$$

Where:  $E_{PM10}$  = PM<sub>10</sub> emissions (tons) during a consecutive 12-month period

X = the amount of natural gas combusted (mmcf), during a consecutive 12-month period

- iii. The owner or operator shall account for the insignificant activity PM<sub>10</sub> emissions from Boiler 1 when totaling the annual plant-wide

emissions. Since the emissions are minor the owner or operator may use the potential PM<sub>10</sub> emissions as the annual emissions. District approved PTE is as follows:

- Boiler 1 (I.A.1) = 0.18 ton PM<sub>10</sub>/year
- d. **SO<sub>2</sub>**

- i. The owner or operator shall monthly calculate the SO<sub>2</sub> emissions from boiler operation based on fuel combustion and the emission factor stated in the Table below unless another method is approved in writing by the District.

Emission Source	SO <sub>2</sub>	Emission Factor Sources
Boiler burning natural gas	0.6 lb/mmcf	AP-42 Chapter 1.4-2

- ii. Using the above Emission Factors calculating the tons per month SO<sub>2</sub> emissions is as follows:

$$E_{SO_2} = (X)(EF \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb.})$$

Where: E<sub>SO<sub>2</sub></sub> = SO<sub>2</sub> emissions (tons) during a consecutive 12-month period

X = the amount of natural gas combusted (mmcf), during a consecutive 12-month period

- iii. The owner or operator shall account for the insignificant activity HAP emissions from Boiler 1 when totaling the annual plant-wide emissions. Since the emissions are minor the owner or operator may use the potential HAP emissions as the annual emissions. District approved PTE is as follows:

- Boiler 1 (I.A.1) = 0.001 ton SO<sub>2</sub>/year

**7. Insignificant Activities**

Description	Quan.	PTE (tpy)	Basis for Exemption
Yorkshire-Shipley, model SPHV-175-N, Natural Gas Boiler (5.85 MM Btu/hr heat input capacity)	1	NO <sub>x</sub> = 2.4 CO = 2.01	Regulation 2.16, Section 1.23

- 1) Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.
- 2) Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.

- 3) The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.
- 4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
- 5) The owner or operator shall submit an updated list of insignificant activities that occurred during the preceding year pursuant to Regulation 2.16 section 4.3.5.3.6.
- 6) The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) to be reported on the annual emission inventory.
- 7) The District has determined pursuant to Regulation 2.16 section 4.1.9.4 that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.

a. **IA.1 Boiler**

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
Boiler 1	Yorkshire-Shipley, model SPHV-175-N, Natural Gas Boiler (5.85 MM Btu/hr heat input capacity)	7.06; 40 CFR 63 Subpart DDDDD	Regulation 7.06 applies to each indirect heat exchanger having input capacity of more than one million BTU per hour commenced after September 1, 1976.  Regulation 40 CFR 63 Subpart DDDDD applies to boilers or process heaters located at, or part of, a major source of HAP.

ii. **Standards/Operating Limits**

1) **PM/Opacity/SO<sub>2</sub>/TAC**

- (a) Regulation 7.06 provides for the control of emissions from indirect heat exchange equipment.

2) **HAP**

- (a) Regulation 40 CFR 63 Subpart DDDDD provides for the control of emissions from boilers or process heaters located at a major source of HAP.

iii. **Monitoring and Recordkeeping**

1) **HAP**

- (a) Regulation 40 CFR 63 Subpart DDDDD provides for the monitoring and record keeping requirements of boilers or process heaters located at a major source of HAP.

iv. **Reporting**

1) **HAP**

- (a) Regulation 40 CFR 63 Subpart DDDDD provides for the reporting requirements of boilers or process heaters located at a major source of HAP.