



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



21 April 2016

Federally Enforceable District Origin Operating Permit Statement of Basis

Owner/Source: G&K Services

Plant Location: 1200 Maple Street Louisville, Kentucky 40210

Date Application Received: 08/28/2013, 10/21/2015

Date of Draft Permit: 21 April 2016

District Engineer: Emily Tyler

Permit No: O-1495-16-F

Plant ID: 1495

SIC Code: 7218

NAICS: 812332

Introduction:

This permit will be issued pursuant to District Regulation 2.17- *Federally Enforceable District Origin Operating Permits*. Its purpose is to limit the plant wide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO₂), carbon monoxide (CO), 1 hr and 8 hr ozone (O₃), and particulate matter less than 10 microns (PM₁₀); and is a non-attainment area for the 1997 standard for particulate matter less than 2.5 microns (PM_{2.5}), unclassifiable for the 2012 standard for particulate matter less than 2.5 microns (PM_{2.5}) and partial non-attainment area for sulfur dioxide (SO₂).

Application Type/Permit Activity:

Initial Issuance

Permit Revision

Administrative

Minor

Significant

Permit Renewal

Compliance Summary:

Compliance certification signed

Source is out of compliance

Compliance schedule included

Source is operating in compliance

I. Source Information

1. **Product Description:** G&K Services is an industrial laundry service.
2. **Process Description:** At the facility, soiled laundry is received by the truck load, washed in commercial washers, dried in commercial dryers, and removed from the facility in trucks. The Best Available Control Technology (BACT) plan designates only two washers and two dryers to perform the laundering of VOC containing print towels and shop towels and the storage and handling requirements of VOC containing towels, and equipment maintenance requirements.
3. **Site Determination:** There are no other facilities that are contiguous or adjacent to this facility
4. **Emission Unit Summary:**

| Emission Unit | Equipment Description |
|---------------|--|
| U1 | One (1) commercial laundry facility, consisting of ten (10) commercial washers and six (6) commercial dryers, with either external or integral lint collectors at the dryers, steam tunnel and boiler. |

5. **Fugitive Sources:** The process fugitive emissions identified by the source are the emissions of the pollutant VOC that includes various HAPs.
6. **Permit Revisions:**

| Revision No. | Permit No. | Issue Date | Public Notice Date | Change Type | Change Scope | Description |
|--------------|-------------|------------|--------------------|----------------------|---------------|---|
| Initial | 33453-13-F | 02/28/2014 | 01/28/2014 | Initial | Entire Permit | Initial Permit Issuance |
| R1 | O-1495-16-F | X/X/2016 | 4/21/2016 | Significant Revision | U1 | The revision incorporates construction permit C-1495-1000-15-F into U1 for replacement Emission Point #13 with a new 1,600 lb/hr Jensen DTX 800 3.0 MMBtu/hr dryer controlled by an external cylindrical lint trap. |

7. Construction Permit History:

| Permit No. | Issue Date | Description |
|------------------|------------|---|
| C-1495-1000-15-F | 11/18/2015 | Replacement of Emission Point #13 with a new 1,600 lb/hr Jensen DTX 800 3.0 MMBtu/hr dryer controlled by an external cylindrical lint trap. |

8. Emission Summary:

| Pollutant | District Calculated Actual Emissions (tpy) 2012 Data ¹ | Pollutant that triggered Major Source Status (based on PTE) |
|------------------|---|---|
| CO | 0 | No |
| NO _x | 0 | No |
| SO ₂ | 0 | No |
| PM ₁₀ | 0.10 | No |
| VOC | 4.12 | Yes |
| Total HAPs | 0.42 | Yes |
| Single HAP | 0.22 | Yes |

¹Source only processed print and shop towels the last five months of CY2012.

9. Applicable Requirements:

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

10. Referenced MACT Federal Regulations: The source has no future MACT requirements.

11. Referenced non-MACT Federal Regulations: There are no federal regulations for commercial laundry facilities.

II. Regulatory Analysis

1. Acid Rain Requirements: G&K Services is not subject to the Acid Rain Program.

2. Stratospheric Ozone Protection Requirements: G&K Services does not manufacture, sell, or distribute any of the listed chemicals. 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. The source’s use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

- 3. **Prevention of Accidental Releases 112(r):** G&K Services 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.
- 4. **40 CFR Part 64 Applicability Determination:** G&K Services is not subject to 40 CFR Part 64 - *Compliance Assurance Monitoring for Major Stationary Sources*.
- 5. **Basis of Regulation Applicability**

a. **Plant-wide**

G&K Services is a potential major source for the pollutants VOC, Total HAPs, and largest single HAP. Regulation 2.17 – *Federally Enforceable District Origin Operating Permits* establishes requirements to limit the plant wide potential emission rates to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements. The source is not major for Greenhouse Gases.

G&K Services requested the plant-wide limits of the criteria pollutant PM₁₀ < 25 tpy, VOC < 25 tpy, Total HAPs < 12.5 tpy and of largest single HAP < 5.0 tpy, to be FEDOOP STAR Exempt as defined by Regulation 5.00, section 1.13.5.

b. **Emission Unit U1 – Industrial Laundry Facility**

i. **Equipment:**

| Emission Point | Capacity | Install Date | Applicable Regulation | Basis for Applicability |
|--------------------------|-------------|--------------|-----------------------|--|
| E3: Washer #1, Braun | 700 lb/load | 1998 | 2.17 7.08 7.25 | Regulation 2.17 applies to a source taking a limit to be minor. |
| E4: Washer #2, Braun | 700 lb/load | 1995 | | |
| E13: Dryer #1, Norman | 800 lb/load | 2015 | | |
| E14: Dryer #2, Norman | 600 lb/load | 1989 | | Regulation 7.08 establishes the requirements for PM emission from new processes that commences construction after September 1, 1976. |
| E15: Dryer #3, Challenge | 400 lb/load | 1989 | | |
| E16: Dryer #4, Challenge | 400 | 2014 | | |

| Emission Point | Capacity | Install Date | Applicable Regulation | Basis for Applicability |
|----------------|----------|--------------|-----------------------|-------------------------|
| | lb/load | | | analysis is submitted. |

ii. **Standards/Operating Limits**

1) **VOC**

- (a) Regulation 7.25, Section 3, requires the source to submit a Best Available Control Technology (BACT) plan, if the emissions of the pollutant VOC exceed tpy. The BACT plan submitted by source, for the process of laundering the VOC containing print towels and shop towels, was based on a process limit of 22 tons of VOC, in a 12 consecutive month period.

2) **PM/PM₁₀**

- (a) The emission standard for PM at each emission point with a process throughput of less than 30 tons/hr is determined in accordance with Regulation 7.08, section 3.1.2 as follows:

$$\text{PM lb/hr limit} = 3.59 (\text{process weight tn/hr})^{0.62}$$

- (b) The emission standard for PM at each emission point with a process throughput of less than 1,000 lb/hr is 2.34 lb/hr, in accordance with Regulation 7.08, section 3.1.2.

3) **Opacity**

- (a) Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%, for processes that commenced construction after September 1, 1976.

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 operation flexibility.

5. **Compliance History:** As of the effective date of Permit O-1495-16-F, there are no compliance schedules in effect or progress reports required.

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

Commercial Laundry Facility (U1): Emission factors were obtained from test results at other similar G&K Services facilities in Green Bay, WI and Manchester, NH and mass balancing testing at the Louisville, KY.

7. **Insignificant Activities**

| Description | Quantity | PTE (tpy) | Basis for Exemption |
|---|----------|-----------------------|-------------------------|
| Dryer #5, Cissell, model L3630, 300 lb/hr, | 1 | 3.01 PM ₁₀ | Reg. 1.02, section 1.38 |
| Dryer #6, American Laundry Machine Inc., model 582, 250 lb/hr | 1 | 2.50 PM ₁₀ | Reg. 1.02, section 1.38 |
| Superior boiler, model 8-5-1000-S150-WB-G, 8.4 mmbtu/hr, natural gas fueled | 1 | 3.61 NO _x | Reg. 1.02, Appendix A |
| Leonard Automatics, steam tunnel, model VTP24, 1.5 mmbtu/hr, natural gas fueled | 1 | 0.64 NO _x | Reg. 1.02, Appendix A |
| 0.2 mmbtu/hr, natural gas fueled space heaters | 5 | 0.43 NO _x | Reg. 1.02, Appendix A |
| 0.175 mmbtu/hr, natural gas fueled space heaters | 2 | 0.15 NO _x | Reg. 1.02, Appendix A |
| 0.125 mmbtu/hr, natural gas fueled space heater | 1 | 0.05 NO _x | Reg. 1.02, Appendix A |
| 0.1 mmbtu/hr, natural gas fueled space heaters | 4 | 0.17 NO _x | Reg. 1.02, Appendix A |
| 0.075 mmbtu/hr, natural gas fueled space heater | 1 | 0.03 NO _x | Reg. 1.02, Appendix A |

- 1) Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.
- 2) Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.
- 3) The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.
- 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 may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.
- 6) The District has determined 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.