



Louisville Metro Air Pollution Control District
 850 Barret Avenue
 Louisville, Kentucky 40204-1745



Federally Enforceable District Origin Operating Permit (FEDOOP)

Permit No.: O-1225-15-F

Plant ID: 1225

Effective Date: 5/18/2013

Expiration Date: 5/31/2018

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Atkemix Ten Incorporated- Louisville
 6100 Camp Ground Road
 Louisville, KY 40216

The applicable procedures of District Regulation 2.17 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than twelve (12) months and no later than ninety (90) days prior to the expiration date.

Emission limitations to qualify for non-major status:

Pollutant:	VOC	Single HAP	Total HAP
Tons/year:	<25	<5	<12.5

Application No.: 17756
 73295

Application Received: 5/07/2007
 8/31/2015

Permit Writer: Eva Addison

Date of Public Notice: 3/01/2013
 11/05/2015

{Manager1}
 Air Pollution Control Officer
 {date1}

TABLE OF CONTENTS

FEDOOP Permit Revisions/Changes..... 3

Construction Permit History: 3

Abbreviations and Acronyms 4

Preamble 5

General Conditions 6

 Emission Unit U1: Soil and Groundwater Remediation Operation..... 10

 U1 Applicable Regulations: 10

 U1 Equipment: 10

 U1 Control Devices: 10

 U1 Specific Conditions 11

Insignificant Activities..... 13

Fee Comment 13

Attachment A - Protocol Checklist for a Performance Test 14

FEDOOP Permit Revisions/Changes

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
Initial	149-02-F	08/01/2002	06/23/2002	Initial	Entire Permit	Initial Permit Issuance
R1	149-02-F(R1)	04/18/2013	03/01/2013	Renewal	Entire Permit	Scheduled Renewal and incorporation of construction permit 264-01-C(R1)
N/A	O-1225-15-F	??	11/05/2015	Admin	Emission Unit U1	Incorporate STAR Exempt limits and remove TAC limits

Application	Receipt Date	Application Number
FEDOOP Permit – 149-02-F	08/31/2001	N/A
FEDOOP Permit – 149-02-F(R1)	05/07/2007	17756
FEDOOP Permit – O-1225-15-F – STAR Exempt	08/31/2015	73295

Construction Permit History:

Permit No.	Issue Date	Description
264-01-C(R1)	2/28/2013	One (1) Production Area SVE (Soil Vapor Extraction), make Roots, model URA1718, capacity 1200 scfm; One (1) Curtain Area SVE, make Rotron Chemical Processing Series, model CP909FJ72WLR, capacity 600 scfm; and One (1) Air Stripper, make New York Blower Company, model 404 SER 35 GIDH ARR'GT.8, capacity 7200 acfm at 36" WG; all venting to One (1) dual-bed Carbon Adsorption System, make VIC Environmental Systems, model 5108 AD Carbon Adsorption System, capacity 7200 scfm at 70°F, stack ID

Abbreviations and Acronyms

AP-42	- AP-42, <i>Compilation of Air Pollutant Emission Factors, published by U.S.EPA</i>
APCD	- Louisville Metro Air Pollution Control District
BAC	- Benchmark Ambient Concentration
BACT	- Best Available Control Technology
Btu	- British thermal unit
CEMS	- Continuous Emission Monitoring System
CFR	- Code of Federal Regulations
CO	- Carbon monoxide
District	- Louisville Metro Air Pollution Control District
EA	- Environmental Acceptability
gal	- U.S. fluid gallons
GHG	- Greenhouse Gas
HAP	- Hazardous Air Pollutant
HCl	- Hydrogen chloride
Hg	- Mercury
hr	- Hour
in.	- Inches
lbs	- Pounds
l	- Liter
LMAPCD	- Louisville Metro Air Pollution Control District
mmHg	- Millimeters of mercury column height
MM	- Million
NAICS	- North American Industry Classification System
NO _x	- Nitrogen oxides
PM	- Particulate Matter
PM ₁₀	- Particulate Matter less than 10 microns
PM _{2.5}	- Particulate Matter less than 2.5 microns
ppm	- parts per million
PSD	- Prevention of Significant Deterioration
psia	- Pounds per square inch absolute
QA	- Quality Assurance
RACT	- Reasonably Available Control Technology
SIC	- Standard Industrial Classification
SIP	- State Implementation Plan
SO ₂	- Sulfur dioxide
STAR	- Strategic Toxic Air Reduction
TAC	- Toxic Air Contaminant
UTM	- Universal Transverse Mercator
VOC	- Volatile Organic Compound
w.c.	- Water column
year	- Any period of twelve consecutive months, unless "calendar year" is specified
yr	- Year, or any 12 consecutive-month period, as determined by context

Preamble

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of annual fees is not made. The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

1. The owner or operator shall comply with all General Conditions herein and all terms and conditions in the referenced process/process equipment list.
2. All terms and conditions in this FEDOOP are enforceable by EPA, except those terms and conditions specified as District-only enforceable, and those which are not required pursuant to the Clean Air Act Amendments of 1990 (CAAA) or any of the Act's applicable requirements.
3. All application forms, reports, compliance certifications, and other relevant information submitted to the District shall be certified by a responsible official. If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.
4. The owner or operator shall submit an annual compliance certification, signed by the responsible official, to the District, on or before April 15 of the year following the year for which the certification applies. This certification shall include completion of District Form 9440-O.
5. Periodic testing, instrumental monitoring, or non-instrumental monitoring, which may include record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstrating continuing compliance with the terms and conditions of this permit.
6. The owner or operator shall retain all records required by the District or any applicable requirement, including all required monitoring data and supporting information, for a period of five years from the date of the monitoring, sampling, measurement, report, or application, unless a longer time period for record retention is required by the District or an applicable requirement. Records shall be retrievable within a reasonable time and made available to the District, Kentucky Division for Air Quality, or the EPA upon request.
7. The owner or operator shall provide written notification to the District, and receive approval, prior to making any changes to existing equipment or processes that would result in emissions of any regulated pollutant in excess of the allowable emissions specified in this permit.
8. This permit may be reissued, revised, reopened, or revoked pursuant to District Regulation 2.17. Repeated violations of permit conditions are sufficient cause for revocation of this permit. The filing of a request by the owner or operator for any reissuance, revision, revocation, termination, or a notification of planned changes in equipment or processes, or anticipated noncompliance shall not alter any permit requirement.
9. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed either 10 tons per year, or such lesser quantity as

the EPA has established by rule, of any one Hazardous Air Pollutant (HAP) or 25 tons per year of all HAPs combined. Fugitive HAP emissions shall be included in this limit. HAPs are listed in Section 112(b) of the CAAA and as amended in 40 CFR 63, Subpart C.

10. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed 100 tons per year of any regulated pollutant, including particulate matter, PM₁₀, PM_{2.5}, sulfur dioxide, carbon monoxide, nitrogen oxides, lead, hydrogen sulfide, gaseous fluorides, total fluorides, or Volatile Organic Compounds (VOC); any pollutant subject to any standard in District Regulation 7.02; any substance listed in sections 112(r), 602(a) and 602(b) of the CAAA; or any combination of greenhouse gasses whose combined global warming potential equals or exceeds 100,000 tons CO₂-equivalent, as defined in 40 CFR 98. Fugitive emissions shall be included in these limits for source categories listed in District Regulation 2.16.
11. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.
12. Unless specified elsewhere in this permit, the owner or operator shall submit annual reports demonstrating compliance with the emission limitations specified. The report shall contain monthly and consecutive 12-month totals for each pollutant that has a federally enforceable limitation on the potential to emit. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All annual compliance reports shall include the following per Regulation 2.17, section 3.5.
 - A certification statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete", and
 - The signature and title of a responsible official of the company.

The report must be postmarked no later than March 1 of the year following the calendar year covered in the annual report.

13. The owner or operator shall comply with all applicable requirements of the following federally enforceable District Regulations:

Regulation	Title
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance with Emissions Standards and Maintenance Requirements
1.06	Source Self-Monitoring, Emissions Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures

Regulation	Title
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.07	Public Notification for Title V, PSD, and Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.17	Federally Enforceable District Origin Operating Permits
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions

14. The owner or operator shall comply with all applicable requirements of the following District-only enforceable regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors in the Ambient Air
2.08	Fees
5.00	Definitions
5.01	General Provisions
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.14	Hazardous Air Pollutants and Source Categories
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants
7.02	Adoption of Federal New Source Performance Standards

15. The owner or operator shall submit emission inventory reports, as required by Regulation 1.06, if so notified by the District.
16. The owner or operator shall submit timely reports of abnormal conditions or operational changes that may cause excess emissions, as required by Regulation 1.07.
17. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit shall be submitted to:

***Air Pollution Control District
Room 205
850 Barret Ave
Louisville, KY 40204-1745***

Emission Unit U1: Soil and Groundwater Remediation Operation**U1 Applicable Regulations:**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	1 through 5

U1 Equipment:

Emission Point	Description	Applicable Regulation	Control ID	Stack ID	Installation Date
E1	One (1) Production Area SVE (Soil Vapor Extraction), make Roots, model URA1718, 1200 scfm	7.25	C1	S1	Originally installed 8/6/1996; modified 7/23/2001
E2	One (1) Curtain Area SVE, make Rotron Chemical Processing Series, model CP909FJ72WLR, 600scfm	7.25	C1	S1	Originally installed 8/6/1996; modified 7/23/2001
E3	One (1) Air Stripper, make New York Blower Company, model 404 SER 35 GIDH ARR'GT.8, 720 acfm at 36" WG	7.25	C1	S1	Originally installed 8/6/1996; modified 7/23/2001

U1 Control Devices:

Control ID	Description	Control Efficiency	Performance Indicator	Stack ID
C1	One (1) dual-bed Carbon Absorption System, make VIC Environmental Systems, model 5108 AD Carbon Adsorption System, 7200 scfm at 70°F	95%	Air Flow in ACFM	S1

U1 Specific Conditions

S1. **Standards** (Regulation 2.17, section 5.1)

a. **VOC**

The owner or operator shall not allow plant-wide VOC emissions to equal or exceed 25 tons per consecutive 12-month period. (Regulation 7.25, Section 3.1 and Regulation 2.17, Section 5.1)¹

b. **HAP**

i. The owner or operator shall not allow plant-wide single HAP emissions to equal or exceed 5 tons per consecutive 12-month period. (Regulation 2.17, Section 5.1)

ii. The owner or operator shall not allow plant-wide total HAP emissions to equal or exceed 12.5 tons per consecutive 12-month period. (Regulation 2.17, Section 5.1)

S2. **Monitoring and Record Keeping** (Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

i. The owner or operator shall monthly sample, analyze, and record the inlet and outlet exhaust gas stream to determine the content of VOC and individual HAPs.

ii. The owner or operator shall daily maintain records of the hours of operation for each operating day.

iii. The owner or operator shall monthly maintain records of the average air flow in units of ACFM, for the previous calendar month.

iv. The owner or operator shall monthly calculate and record the emissions of VOC, each individual HAP, and total HAP for the previous calendar month and for the previous consecutive 12-month period based on the results of the monthly sampling and analysis required by Specific Condition S2.a.i.

¹ The District has determined that the carbon adsorption units meet the BACT requirement for compliance with Regulations 7.25.

b. **HAP**

See Specific Condition S2.a.

S3. **Reporting** (Regulation 2.17, section 5.2)

a. **VOC**

- i. The owner or operator shall include in the annual report the monthly inlet gas stream concentration and outlet concentration of the exhaust gas stream for VOC, each individual HAP, and total HAP.
- ii. The owner or operator shall include in the annual report the monthly hours of operation for the SVE Unit for each calendar month.
- iii. The owner or operator shall include in the annual report the average air flow, in units of ACFM, for each calendar month.
- iv. The owner or operator shall include in the annual report the monthly and consecutive 12-month emissions for VOC, each individual HAP, and total HAP.

b. **HAP**

See Specific Condition S3.a.

Insignificant Activities

Equipment	Quan.	PTE (tpy)	Regulation Basis
VOC Storage Tanks 250 gal or less	1	0.01 VOC	Regulation 1.02, Appendix A
Brazing, Soldering, or Welding Equip.	1	0.01 PM ₁₀ ; 0.001 total HAPs	Regulation 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.

Fee Comment

1. On May 15, 2013, the Board approved revisions to Regulation 2.08, which implemented a new fee structure. As a result, Atkemix Ten Incorporated- Louisville will be required to pay annual fees.
2. The administrative fee in the amount of \$516.52 in order to include the STAR avoidance limits is required to be paid prior to the issuance of this permit renewal.

Attachment A - Protocol Checklist for a Performance Test

A completed protocol should include the following information:

- 1. Facility name, location, and ID #;
- 2. Responsible Official and environmental contact names;
- 3. Permit numbers that are requiring the test to be conducted;
- 4. Test methods to be used (i.e. EPA Method 1, 2, 3, 4, and 5);
- 5. Alternative test methods or description of modifications to the test methods to be used;
- 6. Purpose of the test including equipment and pollutant to be tested; the purpose may be described in the permit that requires the test to be conducted or may be to show compliance with a federal regulation or emission standard;
- 7. Tentative test dates (These may change but the District will need final notice at least 10 days in advance of the actual test dates in order to arrange for observation.);
- 8. Maximum rated production capacity of the system;
- 9. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate, based on limits);
- 10. Method to be used for determining rate of production during the performance test;
- 11. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance;
- 12. Description of normal operation cycles;
- 13. Discussion of operating conditions that tend to cause worse case emissions; it is especially important to clarify this if worst case emissions do not come from the maximum production rate;
- 14. Process flow diagram;
- 15. The type and manufacturer of the control equipment, if any;
- 16. The control equipment (baghouse, scrubber, condenser, etc.) parameter to be monitored and recorded during the performance test. Note that this data will be used to ensure representative operation during subsequent operations. These parameters can include pressure drops, flow rates, pH, and temperature. The values achieved during the test may be required during subsequent operations to describe what pressure drops, etcetera, are indicative of good operating performance; and
- 17. How quality assurance and accuracy of the data will be maintained, including;
 - Sample identification and chain-of-custody procedures
 - If audit samples are required for this test method, audit sample provider and number of audit samples to be used
- 18. Pipe, duct, stack, or flue diameter to be tested;
- 19. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet;
- 20. Determine number of traverse points to be tested for outlet and additionally for inlet if required using Appendix A-1 to 40 CFR Part 60;
 - Method 1 if stack diameter is >12"
 - Method 1a if stack diameter is greater than or equal to 4" and less than 12"
 - Alternate method of determination for <4"
 - If a sample location at least two stack or duct diameters downstream and half a diameter upstream from any flow disturbance is not available then an alternative procedure is available for determining the acceptability of a measurement location. This procedure described in Method 1, Section 11.5 allows for the determination of gas flow angles at the sampling points and comparison of the measured results with acceptability criteria.
- 21. The Stack Test Review fee shall be submitted with each stack test protocol.