

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: **06 2 0 1 9 - 0 0 4**

Project Number: 2019-02-020
Installation Number: 095-0399

Parent Company: Board of Police Commissioners

Parent Company Address: 1125 Locust Street, Kansas City, MO 64106

Installation Name: Kansas City, Missouri Police Department

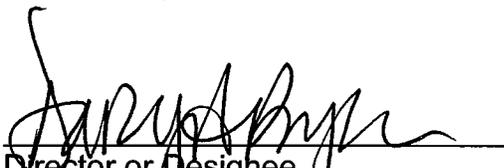
Installation Address: 2645 Brooklyn Avenue, Kansas City, MO 64127

Location Information: Jackson County, S9, T49N, R33W

Application for Authority to Construct was made for:
Installation of an incinerator for contraband disposal. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.



Director or Designee
Department of Natural Resources

JUN 10 2019

Effective Date

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Enforcement and Compliance Section of the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Enforcement and Compliance Section of the Department's Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department's regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of the permit application and this permit and permit review shall be kept at the installation address and shall be made available to Department's personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit using the contact information below.

Contact Information:

Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102-0176
(573) 751-4817

The regional office information can be found at the following website:
<http://dnr.mo.gov/regions/>

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted to the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (3)(E). "Conditions required by permitting authority."

Kansas City Missouri Police Department
Jackson County, S9, T49N, R33W

1. Process Requirements for the Incinerator (EP-01)
 - A. The Kansas City, Missouri Police Department shall burn exclusively contraband or prohibited goods such as illegal drugs as defined in Chapter 195 Drug Regulations Section 195.017 RSMo. Revised, updated, or corrected sections of Chapter 195 that define illegal drugs are also authorized for incineration.
 - B. The operators shall maintain the secondary chamber at a temperature of no less than 1400 degrees Fahrenheit. Compliance shall be determined with the operation of a continuous chart or electronic recorder.
 - C. The incinerator shall be equipped with a continuous chart recorder/digital recorder that is able to monitor, display and record the temperature in the final combustion chamber to an accuracy of plus or minus two percent (2%).
 - D. The incinerator (EP-01) shall have opacity of less than ten percent (10%) at all times, as determined by an observer performing EPA Reference Method 22, Visual Determination of Fugitive Emissions during operation of each batch.
 - E. Charging of waste between burn cycles is prohibited in the batch-type incinerator.
 - F. The incinerator shall have a minimum combustion efficiency of 99.9% determined from the carbon dioxide (CO₂) concentration divided by the sum of the carbon monoxide (CO) and CO₂ concentrations. Compliance has been demonstrated by a stack test conducted by FireLake Manufacturing LLC in Dassel, Minnesota on December 15, 2016, and submitted by the Kansas City, Missouri Police Department. The Air Pollution Control Program's Testing and Emissions Unit reviewed the results as stated in an email dated November 21, 2018.
 - G. The Kansas City, Missouri Police Department shall only burn natural gas in the 2.8 MMBTU/hr incinerator.

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

- H. The Kansas City, Missouri Police Department shall maintain an accurate record of each batch incinerated that will include the following:
- 1) Item(s) combusted,
 - 2) the date combusted,
 - 3) a court case or other criminal identification marker associated with the item(s) combusted,
 - 4) the temperature of the exhaust,
 - 5) observation that the exhaust is clean of soot and less than ten percent opacity,
 - 6) the approximate weight of the items incinerated, and
 - 7) fuel type.
- I. Attachment A or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Condition 1.H.
- J. The incinerator shall be operated only if it is in sound mechanical condition. The entire unit should be free from holes, dents and damage and the door/or lid seals shall function as designed. Compliance shall be determined by monthly inspection of the unit and a log of the inspection shall be kept by the Kansas City, Missouri Police Department. The inspection shall include the name of the person making the inspection, any repair actions, and replacements parts, etc.
2. Restrictions
- The Kansas City, Missouri Police Department shall not incinerate any sharps that have been used in animal or human patient care or treatment, for illegal drug use, or in medical, research, or industrial laboratories, such as hypodermic needles, syringes (with or without the attached needle), pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips.
3. Restriction of Odors
- If a continued situation of verified nuisance odors exists in violation of 10 CSR 10-6.165, the Director may require through written notice that the Kansas City, Missouri Police Department submit within ten days a corrective action plan adequate to timely and significantly mitigate the odors. The Kansas City, Missouri Police Department shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement such a plan shall be in violation of this permit.

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

4. **Requirements for Operators of the Drug Incinerator (EP-01)**
 - A. All drug incinerator operators shall attend a training program equivalent to that developed by the American Society of Mechanical Engineers (ASME), by the incinerator manufacturer or by an individual with more than one (1) year experience in the operation of the incinerator. The training shall include basic combustion theory, operating procedures, monitoring of combustion control parameters and all emergency procedures to be followed if the incinerator should malfunction or exceed operating parameters.
 - B. The incinerator operator shall have the essential steps necessary for satisfactory operation of the incinerator readily available to him or her in an easy to read and follow manual.
5. **Record Keeping and Reporting Requirements**
 - A. The Kansas City, Missouri Police Department shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. The Kansas City, Missouri Police Department shall report to the Air Pollution Control Program's Compliance/Enforcement Section, by mail at P.O. Box 176, Jefferson City, MO 65102 or by email at AirComplianceReporting@dnr.mo.gov, no later than ten days after the end of the month during which any record required by this permit shows an exceedance of a limitation imposed by this permit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2019-02-020
Installation ID Number: 095-0399
Permit Number:

06 2 0 1 9 - 0 0 4

Installation Address:

The Kansas City, Missouri Police Department
2645 Brooklyn Avenue
Kansas City, MO 64127

Parent Company:

Board of Police Commissioners
1125 Locust Street
Kansas City, MO 64106

Jackson County, S9, T49N, R33W

REVIEW SUMMARY

- The Kansas City, Missouri Police Department has applied for authority to install an incinerator for contraband disposal.
- The application was deemed complete on February 13, 2019.
- HAP emissions are expected from the proposed equipment. HAPs of concern from this process are from the combustion of natural gas in the 2.8 MMBTU/hr incinerator.
- None of the New Source Performance Standards (NSPS) apply to the installation. 40 CFR 60 Subpart EEEE, "Standards of Performance for Other Solid Waste Incineration Units for Which Construction is Commenced after December 9, 2004, or for Which Modification or Reconstruction is Commenced on or after June 16, 2006" does not apply to this unit. This unit is exempted as it is owned by a government agency and is restricted to burning only contraband or prohibited goods.
- None of the NESHAPs apply to this installation. None of the currently promulgated MACT regulations apply to the proposed equipment.
- Thermal Oxidizer is being used to control the PM, PM₁₀, PM_{2.5}, CO, VOC, and HAPs emissions from the equipment in this permit. It is also an emission unit.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are below de minimis levels.
- This installation is located in Jackson County, a maintenance area for ozone and an attainment area for all other criteria pollutants.
- This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.

- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- Emissions testing is not required for the incinerator as a part of this permit. Testing may be required as part of other state, federal or applicable rules.
- No Operating Permit is required for this installation.
- Approval of this permit is recommended with special conditions.

PROJECT DESCRIPTION

The Kansas City, Missouri Police Department (KCPD) is purchasing a Firelake Manufacturing, LLC incinerator model # P-50 3 NAT: SC30 TC21 2 Pen Controller for the purpose of the destruction of exclusively illegal drugs, contraband, or prohibited goods as defined in NSPS EEEE. This incinerator is fueled by natural gas and has a burner heat input of 2.8 MMBTU/hr. The incinerator has a single stack output point for emissions. The unit uses a two pen chart recorder to monitor the main burn chamber temperature and the secondary 30 cubic foot afterburner stack chamber temperature. The incinerator has a maximum burn rate of 125 lbs./hr and the main burn chamber is 50 cubic feet in volume. The incinerator will be located in KCPD secure bay courtyard, which is surrounded by an eight-foot concrete wall and is only accessible through a key card activated security gate. The closest sidewalk/roadway to the incinerator would be Brooklyn Avenue to the west at 77 yards. The entire secure bay courtyard area is under 24-hour recorded video surveillance.

Stack test data was provided for this incinerator that was conducted by FireLake Manufacturing, LLC in Dassel, Minnesota on December 15, 2016.

No permits have been issued to the Kansas City, Missouri Police Department from the Air Pollution Control Program.

This unit can burn or incinerate those items that are in the possession of the Kansas City, Missouri Police Department that are considered to be illegal drugs as defined in Chapter 195 Drug Regulations Section 195.017. Revised, updated, or corrected sections of Chapter 195 Drug Regulations that define illegal drugs are authorized for incineration. In addition, items that are found to be in their possession by legal court action or due process of the legal system are considered to be illegal, contraband, or prohibited goods.

The unit is not authorized to cremate non-infectious human bodies and body parts. It is not authorized to incinerate medical/infectious waste as defined in the Code of Federal Regulations, 40 CFR 60.51, *Standards of Performance for New Stationary Sources*, Subpart Ec—"Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996." The rule defines medical/infectious waste as:

Medical/infectious waste means any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals that are listed in paragraphs (1) through (7) of this definition. The definition of medical/infectious waste does not include hazardous waste identified or listed under the regulations in part 261 of this chapter; household waste, as defined in §261.4(b)(1) of this chapter; ash from incineration of medical/infectious waste, once the incineration process has been completed; human corpses, remains, and anatomical parts that are intended for interment; and domestic sewage materials identified in §261.4(a)(1) of this chapter.

- (1) Cultures and stocks of infectious agents and associated biologicals, including: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures.
- (2) Human pathological waste, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers.
- (3) Human blood and blood products including:
 - (i) Liquid waste human blood;
 - (ii) Products of blood;
 - (iii) Items saturated and/or dripping with human blood; or
 - (iv) Items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis or the development of pharmaceuticals. Intravenous bags are also include in this category.
- (4) Sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips.
- (5) Animal waste including contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals or testing of pharmaceuticals.
- (6) Isolation wastes including biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases.

- (7) Unused sharps including the following unused, discarded sharps: hypodermic needles, suture needles, syringes, and scalpel blades.

In order to exempt the incinerator from NSPS Subpart EEEE, this unit must be owned by a government agency such as the police or similar agency. It can only destroy illegal or prohibited goods such as illegal drugs, or agricultural food products that cannot be transported into the country or across state lines. The unit is excluded from the subpart and is not considered an OSWI (Other Solid Waste Incinerator) unit subject to the Subpart EEEE. The exclusion does not apply to items confiscated by private, industrial, or commercial entities.

EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies used in this analysis were obtained from the Environmental Protection Agency (EPA) AP-42, Chapter 1.4, Natural Gas Combustion and stack test results from a similar unit conducted by FireLake Manufacturing LLC in Dassel, Minnesota on December 15, 2016. The testing provided hourly emission rates for PM₁₀ and CO. Hourly emissions for PM₁₀ include filterable and condensable from Method 202. PM emissions only included filterable particulate. Emissions of PM_{2.5} as defined in the Appendix A were assumed to be equal to particulate matter less than ten microns in aerodynamic diameter (PM₁₀) because an emission factor for PM_{2.5} is not available. SO_x, NO_x, VOC and HAPs were determined by the combustion of natural gas. With a destruction efficiency of 99.997% (verified by the APCP's Testing and Emission Unit, in an email dated November 21, 2018), it was determined that all pollutants with a carbon base associated with the combustion of the contraband would be converted to CO₂ and the remaining pollutants (SO_x and NO_x) would be insignificant. Therefore, the emissions of these other pollutants were based on the combustion of natural gas. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year). The following table provides an emissions summary for this project.

Table 2: Emissions Summary (tons per year)

| Pollutant | Regulatory <i>De Minimis</i> Levels | Potential Emissions of the Project |
|-------------------------|--|---------------------------------------|
| PM | 25.0 | 0.53 |
| PM ₁₀ | 15.0 | 0.83 |
| PM _{2.5} | 10.0 | 0.83 |
| SO _x | 40.0 | 0.01 |
| NO _x | 40.0 | 1.20 |
| VOC | 40.0 | 1.7E-06 |
| CO | 100.0 | 0.02 |
| GHG (CO ₂ e) | N/A | N/D |
| GHG (mass) | N/A | N/D |
| HAPs | 10.0/25.0 | 5.8E-07 |

N/D = Not Determined

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are below de minimis levels.

APPLICABLE REQUIREMENTS

Kansas City Missouri Police Department shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved.

GENERAL REQUIREMENTS

- *No Operating Permit is required.*
- *Start-Up, Shutdown, and Malfunction Conditions, 10 CSR 10-6.050*
- *Submission of Emission Data, Emission Fees and Process Information, 10 CSR 10-6.110*
 - Per 10 CSR 10-6.110(4)(B)2.B(II) and (4)(B)2.C(II) a full EIQ is required for the first full calendar year the equipment (or modifications) approved by this permit are in operation.
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin, 10 CSR 10-6.170*

- *Restriction of Emission of Visible Air Contaminants, 10 CSR 10-6.220*
- *Restriction of Emission of Odors, 10 CSR 10-6.165*

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, it is recommended that this permit be granted with special conditions.

PERMIT DOCUMENTS

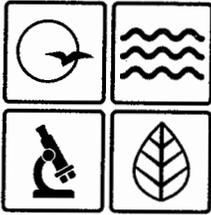
The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated February 1, 2019, received February 13, 2019, designating Board of Police Commissioners as the owner and operator of the installation.

APPENDIX A

Abbreviations and Acronyms

| | |
|---|---|
| %percent | Mgal1,000 gallons |
| °Fdegrees Fahrenheit | MWmegawatt |
| acfmactual cubic feet per minute | MHDRmaximum hourly design rate |
| BACTBest Available Control Technology | MMBtuMillion British thermal units |
| BMPsBest Management Practices | MMCFmillion cubic feet |
| BtuBritish thermal unit | MSDSMaterial Safety Data Sheet |
| CAMCompliance Assurance Monitoring | NAAQSNational Ambient Air Quality Standards |
| CASChemical Abstracts Service | NESHAPs National Emissions Standards for Hazardous Air Pollutants |
| CEMSContinuous Emission Monitor System | NO_xnitrogen oxides |
| CFRCode of Federal Regulations | NSPSNew Source Performance Standards |
| COcarbon monoxide | NSRNew Source Review |
| CO₂carbon dioxide | PMparticulate matter |
| CO_{2e}carbon dioxide equivalent | PM_{2.5}particulate matter less than 2.5 microns in aerodynamic diameter |
| COMSContinuous Opacity Monitoring System | PM₁₀particulate matter less than 10 microns in aerodynamic diameter |
| CSRCode of State Regulations | ppmparts per million |
| dscfdry standard cubic feet | PSDPrevention of Significant Deterioration |
| EIQEmission Inventory Questionnaire | PTEpotential to emit |
| EPEmission Point | RACTReasonable Available Control Technology |
| EPAEnvironmental Protection Agency | RALRisk Assessment Level |
| EUEmission Unit | SCCSource Classification Code |
| fpsfeet per second | scfmstandard cubic feet per minute |
| ftfeet | SDSSafety Data Sheet |
| GACTGenerally Available Control Technology | SICStandard Industrial Classification |
| GHGGreenhouse Gas | SIPState Implementation Plan |
| gpmgallons per minute | SMALScreening Model Action Levels |
| grgrains | SO_xsulfur oxides |
| GWPGlobal Warming Potential | SO₂sulfur dioxide |
| HAPHazardous Air Pollutant | SSMStartup, Shutdown & Malfunction |
| hrhour | tphtons per hour |
| hphorsepower | tpytons per year |
| lbpound | VMTvehicle miles traveled |
| lbs/hrpounds per hour | VOCVolatile Organic Compound |
| MACTMaximum Achievable Control Technology | |
| µg/m³micrograms per cubic meter | |
| m/smeters per second | |



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

JUN 10 2019

Captain James Schulte
The Kansas City, Missouri Police Department
Property & Evidence Unit
1125 Locust Street
Kansas City, MO 64106

RE: New Source Review Permit - Project Number: 2019-02-020

Dear Captain Schulte:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at the following website: <http://dnr.mo.gov/regions/>. The online CAV request can be found at <http://dnr.mo.gov/cav/compliance.htm>.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the Administrative Hearing Commission (AHC) pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, MO 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.oa.mo.gov/ahc.



Recycled paper

Captain James Schulte
Page Two

If you have any questions regarding this permit, please do not hesitate to contact Kathy Kolb at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM



Susan Heckenkamp
New Source Review Unit Chief

SH:kkj

Enclosures

c: Kansas City Regional Office
PAMS File: 2019-02-020

Permit Number: **06 2 0 1 9 - 0 0 4**