

STATE OF 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: **07 2014 - 009**

Project Number: 2014-05-012

Parent Company: City of Columbia Police Department

Parent Company Address: 600 East Walnut, Columbia, MO 65201

Installation Name: Columbia Police Department Regional Training Center

Installation Number: 019-0125

Installation Address: 5001 Meyer Industrial Drive, Columbia, MO 65203

Location Information: Boone County, S12, T48N, R13W

Application for Authority to Construct was made for:
Installation of a Drug Terminator drug incinerator. 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.

JUL 21 2014

EFFECTIVE DATE

Wendy R. Moore for Kyra L. Moore

DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

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 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 Departments' Air Pollution Control Program of the anticipated date of startup 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 of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual startup of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' 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 at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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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 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 (12)(A)10. "Conditions required by permitting authority."

Columbia Police Department Regional Training Center
Boone County, S12, T48N, R13W

1. Process Requirements for the Incinerator (EU-01)
 - A. Columbia Police Department Regional Training Center will burn exclusively contraband or prohibited goods such as illegal drugs as defined in Chapter 195 Drug Regulations Section 195.017. Revised, updated, or corrected sections of Chapter 195 that define illegal drugs are also authorized for incineration.
 - B. Columbia Police Department Regional Training Center shall maintain the temperature in the final combustion chamber at or above 1,100 degrees Fahrenheit. Compliance can be determined by recording the temperature per batch in Attachment A or by the installation of a continuous chart or electronic recorder.
 - C. The incinerator (EU-01) shall have opacity of less than ten percent (10%) at all times, as determined by a certified visible emission observer performing EPA Reference Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources. This includes during stirring of the fire bed in the incinerator.
 - D. Columbia Police Department Regional Training Center shall only burn charcoal or clean wood as fuel during a burn cycle. Clean wood is wood free from contact with hazardous materials contained in certain paints or preservatives such as treated wood. Paper is allowed during startup. Use of lighter fluid or similar fire starting fluids or materials made for fire starting is not authorized.
 - E. Columbia Police Department Regional Training Center shall maintain an accurate record of each batch incinerated that will include the following:
 - 1) Item combusted,
 - 2) the date combusted,
 - 3) a court case or other criminal identification marker associated with the item combusted,

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SPECIAL CONDITIONS:

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

- 4) the temperature of the exhaust,
 - 5) observation that the exhaust less than ten percent opacity
 - 6) the approximate weight of the items incinerated, and
 - 7) time and duration of combustion
 - F. 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 and 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 Columbia Police Department Regional Training Center. The inspection shall include the name of the person making the inspection, any repair actions, and replacements parts, etc.
 - G. Attachment A or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 1.A through 1.E.
2. Restrictions
- A. Columbia Police Department Regional Training Center shall not burn obtained contraband or prohibited goods from other governmental agencies such as police or a similar agency. Columbia Police Department Regional Training Center shall burn exclusively contraband or prohibited goods that are confiscated by their department.
 - B. Columbia Police Department Regional Training Center 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, 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.
3. Restriction of Odors
- A. 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 Columbia Police Department Regional Training Center submits within ten days a corrective action plan adequate to timely and significantly mitigate the odors. Columbia Police Department Regional Training Center shall implement any such plan immediately upon its approval by the Director.

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SPECIAL CONDITIONS:

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

Failure to either submit or implement such a plan shall be in violation of this permit.

4. Record Keeping and Reporting Requirements
 - A. Columbia Police Department Regional Training Center 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.
 - B. Columbia Police Department Regional Training Center shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which any record required by this permit show an exceedance of a limitation imposed by this permit.

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

Project Number: 2014-05-012
Installation ID Number: 019-0125
Permit Number:

Columbia Police Department
Regional Training Center
5001 Meyer Industrial Drive
Columbia, MO 65203

Complete: May 23, 2014

Parent Company:
City of Columbia Police Department
600 East Walnut
Columbia, MO 65201

Boone County, S12, T48N, R13W

REVIEW SUMMARY

- Columbia Police Department Regional Training Center has applied for authority to install a waste incineration unit to be used for the destruction of contraband.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. Antimony Compounds, Arsenic Compounds, Beryllium Compounds, Cadmium Compounds, Chromium Compounds, Manganese Compounds, Mercury Compounds, Nickel Compounds, Hydrogen Fluoride (Cas # 7664-39-3), Chlorine (Cas # 7782-50-5), dioxins/furans, PCB (polychlorinated biphenyls (Cas # 1336-36-6)), and HCl (hydrogen chloride (Cas # 7647-01-0)) are all expected from this incinerator. Individual HAPS are not listed in Table 1 because all are in negligible amounts.
- 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 National Emission Standards for Hazardous Air Pollutants (NESHAPs) apply to this installation. None of the currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, Construction Permits Required. Potential emissions of the installation are below the de minimis level.

- This installation is located in Boone County, an attainment area for all 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 equipment.
- A Basic Operating Permit application is required for this installation within 30 days of equipment startup.
- This unit is considered an institutional waste incinerator
- Approval of this permit is recommended with special conditions.

INSTALLATION/PROJECT DESCRIPTION

A Drug Terminator incinerator will be used to destroy exclusively illegal drugs, contraband, or prohibited goods as defined in NSPS EEEE. The incinerator is not authorized to be operated at any other location. The unit is portable and offsite storage of the unit between operation events is allowed. The Columbia Police Department Regional Training Center will operate the incinerator at 1,100 degrees Fahrenheit in accordance with Special Condition 1.B. Ordinary consumer charcoal briquettes and clean wood can be used to fuel the incinerator. The unit can burn clean wood and paper to start the charcoal. Clean wood is wood free from contact with hazardous materials such as certain types of paints or preservatives (treated lumber). The unit will hold 10 pounds of charcoal at a time. Recharging of fuel (charcoal or clean wood) during a burn cycle and stirring of the fire bed will occur to extend the cycle time of the unit. The unit can be reloaded with contraband or prohibited goods when the unit's exhaust is at or above 1,100 Fahrenheit.

This unit can burn or incinerate those items that are in the possession of the Columbia Police Department Regional Training Center 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 be exempt 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 unit subject to the Subpart EEEE. The exclusion does not apply to items confiscated by private, industrial, or commercial entities.

No permits have been issued to Columbia Police Department Regional Training Center from the Air Pollution Control Program.

EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition. The emission rates for criteria pollutants from the drug incinerator and the charcoal fuel were calculated using emission factors from Chapter 1.6 “Wood Residue Combustion in Boilers” September 2003, Table 1.6-1 and Table 1.6-2. Pollutant emission factors were for dry wood with no control since emission factors for drug incinerators and charcoal do not exist. The higher heating value of charcoal (0.0128 MMBtu/lb) was used to convert the emission factors to lb/ton. The emission factors used in the analysis of HAP emissions were obtained from FIRE for SCC 1-02-009-08. 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 One: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (N/A EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM _{2.5}	10.0	N/A	N/A	1.04	1.04
PM ₁₀	15.0	N/A	N/A	1.21	1.21
PM	25.0	N/A	N/A	1.35	1.35
SO _x	40.0	N/A	N/A	0.08	0.08
NO _x	40.0	N/A	N/A	1.65	1.65
VOC	40.0	N/A	N/A	0.06	0.06
CO	100.0	N/A	N/A	2.02	2.02
GHG (CO ₂)	75,000 / 100,000	N/A	N/A	655.95	655.95
HAPs	10.0/25.0	N/A	N/A	0.12	0.12

N/A = Not Applicable

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 de minimis.

APPLICABLE REQUIREMENTS

Columbia Police Department Regional Training Center 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. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information, 10 CSR 10-6.110*
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required June 1 for the previous year's emissions.
- *Operating Permits, 10 CSR 10-6.065*
- *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*, I recommend this permit be granted with special conditions.

J Luebbert
New Source Review Unit

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated March 6, 2014, received May 6, 2014, designating City of Columbia Police Department as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

Sergeant Daniel Beckman
Police Sergeant - Property & Evidence
Columbia Police Department Regional Training Center
600 East Walnut
Columbia, MO 65201

RE: New Source Review Permit - Project Number: 2014-05-012

Dear Sergeant Beckman:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, 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 and with your operating permit 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.

If you have any questions regarding this permit, please do not hesitate to contact J Luebbert, at the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone 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:jl

Enclosures

c: Northeast Regional Office
PAMS File: 2014-05-012

Permit Number: