

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: **022017-005**

Project Number: 2016-11-053
Installation Number: 161-0068

Parent Company: Phelps County Sheriff's Department

Parent Company Address: 500 West Second Street, Rolla, MO 65401

Installation Name: Phelps County Sheriff Incinerator

Installation Address: Baptist Camp Rd, Yancy Mills, MO 65550

Location Information: Phelps County, S11, T37N, R8E

Application for Authority to Construct was made for:

The installation of a contraband and illicit substance 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.

Hans Robinson

Prepared by
Hans Robinson
New Source Review Unit

Kyra L Moore

Director or Designee
Department of Natural Resources

FEB 14 2017

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 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's 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 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 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."

Phelps County Sheriff Department
Phelps County, S11, T37N, R8E

1. Process Requirements for the Incinerator (EU-01)
 - A. Phelps County Sheriff's Department shall 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. Phelps County Sheriff's Department may incinerate contraband and illicit materials provided by separate law enforcement agencies so long as the TSM-50 incinerator is supervised, operated, and maintained by personnel employed by the Phelps County Sheriff's Department.
 - C. Phelps County Sheriff's Department shall maintain the temperature in the final (second) combustion chamber at or above 1600 degrees Fahrenheit. Compliance shall be determined by recording the temperature per batch in Attachment A or by the operation of a continuous chart or electronic recorder.
 - D. 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. Opacity less than 10 percent does not contain soot or black smoke.
 - E. Phelps County Sheriff's Department shall use only ultra-low sulfur diesel fuel with sulfur content no greater than 15 ppm.
 - F. Phelps County Sheriff's Department 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,
 - 4) the temperature of the exhaust,

SPECIAL CONDITIONS:

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

- 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.
- G. 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 Phelps County Sheriff's Department. The inspection shall include the name of the person making the inspection, any repair actions, and replacements parts, etc.
- H. Phelps County Sheriff's department shall only incinerate contraband at the listed installation address (Baptist Camp Road, Yancy Mills, MO 65550) as stated in the permit application. However, the portable TSM-50 incinerator may be stored but not operated at a separate location from the installation address. Phelps County Sheriff's Department must receive approval from the Department of Natural Resources before operating the TSM-50 at a different location than the installation address.
- 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 Conditions 1.A. through 1.E.
2. **Restrictions**
Phelps County Sheriff's 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, 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**
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 Phelps County Sheriff's Department submits within ten days a corrective action plan adequate to timely and significantly mitigate the odors. Phelps County Sheriff's 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. **Record Keeping and Reporting Requirements**
 - A. Phelps County Sheriff's 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.
 - B. Phelps County Sheriff's Department 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 shows an exceedance of a limitation imposed by this permit.

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

Project Number: 2016-11-053
Installation ID Number: 161-0068
Permit Number: **022017-005**

Installation Address:
Phelps County Sheriff Incinerator
Baptist Camp Rd
Yancy Mills, MO 65550

Parent Company:
Phelps County Sheriff's Department
500 West Second Street
Rolla, MO 65401

Phelps County, S11, T37N, R8E

REVIEW SUMMARY

- Phelps County Sheriff Incinerator has applied for authority to install a waste incineration unit to be used for the destruction of confiscated drugs and contraband.
- The application was deemed complete on 12/5/2016.
- HAP emissions are not expected from the proposed equipment.
- 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.
- An afterburner, designated as the second chamber of the incinerator, is used to control PM, PM₁₀, PM_{2.5}, VOC and HAPs emissions.
- 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 Phelps 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 as a part of this permit.
- No Operating Permit is required for this installation.
- This unit is considered an institutional waste incinerator.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

A two chamber portable TSM-50 incinerator will be used to destroy exclusively illegal drugs, contraband, or prohibited goods as defined in NSPS EEEE. Although the incinerator is portable, it may not operate or incinerate contraband at any location besides the installation address. However, the portable TSM-50 incinerator may be moved from the installation address for storage (see Special Condition 1.G). The Phelps County Sheriff's Department will operate the incinerator at or above 1600 °F (with a maximum design capacity of 2550 °F) in accordance with Special Condition 1.B. The unit can burn only ultra-low sulfur diesel fuel. The burn rating for the TSM-50 is 110 pounds per hour. The unit can be reloaded with contraband or prohibited goods when the unit's second chamber is maintained at or above 1600 °F.

This unit can burn or incinerate those items that are in the possession of the Phelps County Sheriff's 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 included 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 the Phelps County Sheriff's Department 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 and WebFIRE. The emission rates for PM, PM₁₀, and PM_{2.5} for drug incineration (not including diesel combustion emissions) are from Chapter 2.3-2 *Medical Waste Incineration*, July 1993. No other emissions were calculated for the incineration of contraband (ie. emissions specifically associated with combusting drugs, not including the combustion of diesel). MHDR for the incinerator is 110 lb/hr of contraband. SOx emission factors were based on ultra-low sulfur diesel fuel (15 ppm sulfur). SOx, NOx, VOC, and CO emissions factors for diesel combustion come from WebFIRE, SCC 1-02-004-02 *industrial boiler no 2 distillate oil 10-100 MMBtu/hr*. HAPs emission rates were only considered from diesel fuel combustion since no reliable method exists for calculating HAP emissions from drug incineration. Thus, HAP emissions were calculated as a combination of WebFIRE SCC codes 1-01-004-01 *electric generation, no. 5 oil* and SCC 1-02-005-02 *industrial boiler no. 2 distillate oil*. The TSM-50 incinerator will have two chambers; a primary chamber and an afterburner chamber. Both chambers will have single stage burners. The combined heat input of both burners will be 1.5 MMBtu of diesel fuel per hour (roughly 0.75 MMBtu/hour of diesel each). Thus, each burner has an MHDR of 5.4 gallons/hour of diesel fuel. Diesel fuel will be supplied by a 45 gallon Diesel Fuel Tank that will be stationed on site. Fugitive emissions for this diesel tank were not evaluated. PM, PM₁₀, and PM_{2.5} emissions for contraband incineration and for diesel combustion were added in the table below. 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 (tpy)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (N/A EIQ)	Potential Emissions of the Project
PM	25.0	N/A	N/A	1.24
PM10	15.0	N/A	N/A	1.24
PM2.5	10.0	N/A	N/A	1.20
SOx	40.0	N/A	N/A	0.01
NOx	40.0	N/A	N/A	0.97
VOC	40.0	N/A	N/A	0.01
CO	40.0	N/A	N/A	0.24
HAPs	10.0/25.0	N/A	N/A	0.00

N/A = Not Applicable; 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

Phelps County Sheriff Incinerator 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

- *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 November 16, 2016, received November 23, 2016, designating Phelps County Sheriff's Department as the owner and operator of the installation.
- 'Matthews Environmental Solutions' Email correspondence dated 12/6/2016 which provide burn temperature and burner MHDR.

APPENDIX A

Abbreviations and Acronyms

%	percent	m/s	meters per second
°F	degrees Fahrenheit	Mgal	1,000 gallons
acfm	actual cubic feet per minute	MW	megawatt
BACT	Best Available Control Technology	MHDR	maximum hourly design rate
BMPs	Best Management Practices	MMBtu ...	Million British thermal units
Btu	British thermal unit	MMCF	million cubic feet
CAM	Compliance Assurance Monitoring	MSDS	Material Safety Data Sheet
CAS	Chemical Abstracts Service	NAAQS ..	National Ambient Air Quality Standards
CEMS	Continuous Emission Monitor System	NESHAPs	National Emissions Standards for Hazardous Air Pollutants
CFR	Code of Federal Regulations	NO_x	nitrogen oxides
CO	carbon monoxide	NSPS	New Source Performance Standards
CO₂	carbon dioxide	NSR	New Source Review
CO_{2e}	carbon dioxide equivalent	PM	particulate matter
COMS	Continuous Opacity Monitoring System	PM_{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
CSR	Code of State Regulations	PM₁₀	particulate matter less than 10 microns in aerodynamic diameter
dscf	dry standard cubic feet	ppm	parts per million
EIQ	Emission Inventory Questionnaire	PSD	Prevention of Significant Deterioration
EP	Emission Point	PTE	potential to emit
EPA	Environmental Protection Agency	RACT	Reasonable Available Control Technology
EU	Emission Unit	RAL	Risk Assessment Level
fps	feet per second	SCC	Source Classification Code
ft	feet	scfm	standard cubic feet per minute
GACT	Generally Available Control Technology	SDS	Safety Data Sheet
GHG	Greenhouse Gas	SIC	Standard Industrial Classification
gpm	gallons per minute	SIP	State Implementation Plan
gr	grains	SMAL	Screening Model Action Levels
GWP	Global Warming Potential	SO_x	sulfur oxides
HAP	Hazardous Air Pollutant	SO₂	sulfur dioxide
hr	hour	tph	tons per hour
hp	horsepower	tpy	tons per year
lb	pound	VMT	vehicle miles traveled
lbs/hr	pounds per hour	VOC	Volatile Organic Compound
MACT	Maximum Achievable Control Technology		
µg/m³	micrograms per cubic meter		

Emission Unit	Description	Installation's Designation	MHDR (MMBtu/hr Input)	Combined MHDR (MMBtu/hr Input)	MHDR (1,000 gal/hr)	Pollutant	CAS	HAP?	Emission Factor	Emission Factor Units	Emission Factor Source	Available Pollutant (lb/hr)	Control Device	PTE (lb/hr)	PTE (tpy)
EP01	Diesel Fuel Combustion	0	1.5	1.5	0.011	PM filterable			2	lb / 1,000 gal	SCC 1-02-005-02 Industrial boiler no 2 distillate oil 10-100 MMBtu/hr	0.0221	none	0.0221	0.10
0		0	0.0			PM10			2.30			0.0255	none	0.0255	0.11
0		0	0.0			PM2.5			1.55			0.0172	none	0.0172	0.08
0		0	0.0			SOx			0.2160			0.0024	none	0.0024	0.01
0		0	0.0			NOx			20			0.2214	none	0.2214	0.97
						NMTOC as VOC			0.2			0.0022	none	0.0022	0.01
						CO			5			0.0553	none	0.0553	0.24
						Combined HAPS			0.0790			0.0009	none	0.0009	0.0038
						POM aggregate group			4.49E-03			4.97E-05	none	4.97E-05	2.18E-04
						POM (particulate only)		y	0.0033			0.0000	none	3.65E-05	1.80E-04
						Formaldehyde	50-00-0	y	6.10E-02			6.7516E-04	none	0.0007	0.00
						Benzene	71-43-2	y	2.14E-04			2.3686E-06	none	2.37E-06	1.04E-05
						Ethylbenzene	100-41-4	y	6.36E-05			7.0394E-07	none	7.04E-07	3.08E-06
						Naphthalene	91-20-3	y	1.13E-03			1.2507E-05	none	1.25E-05	5.48E-05
						1,1,1-Trichloroethane	71-55-6	y	2.36E-04			2.6121E-06	none	2.61E-06	1.14E-05
						Toluene	108-88-3	y	6.20E-03			6.8623E-05	none	6.86E-05	3.01E-04
						o-Xylene	95-47-6	y	1.08E-04			1.2064E-06	none	1.21E-06	5.28E-06
						Acenaphthene	83-32-9	y	2.11E-05			2.3354E-07	none	2.34E-07	1.02E-06
						Acenaphthylene	208-96-8	y	2.53E-07			2.8003E-09	none	2.80E-09	1.23E-08
						Anthracene	120-12-7	y	1.22E-06			1.3503E-08	none	1.35E-08	5.91E-08
						Benz(a)anthracene	56-55-3	y	4.01E-06			4.4384E-08	none	4.44E-08	1.94E-07
						Benzo(b)fluoranthene	205-99-2	y	1.48E-06			1.6381E-08	none	1.64E-08	7.17E-08
						Benzo(k)fluoranthene	207-08-9	y	1.48E-06			1.6381E-08	none	1.64E-08	7.17E-08
						Benzo(g,h,i)perylene	191-24-2	y	2.26E-06			2.5014E-08	none	2.50E-08	1.10E-07
						Chrysene	218-01-9	y	2.38E-06			2.6342E-08	none	2.63E-08	1.15E-07
						Dibenzo(a,h)anthracene	53-70-3	y	1.67E-06			1.8484E-08	none	1.85E-08	8.10E-08
						Fluoranthene	206-44-0	y	4.84E-06			5.3570E-08	none	5.36E-08	2.35E-07
						Fluorene	86-73-7	y	4.47E-06			4.9475E-08	none	4.95E-08	2.17E-07
						Indo(1,2,3-cd)pyrene	193-39-5	y	2.14E-06			2.3686E-08	none	2.37E-08	1.04E-07
						Phenanthrene	85-01-8	y	1.05E-05			1.1622E-07	none	1.16E-07	5.09E-07
						Pyrene	129-00-0	y	4.25E-06			4.7040E-08	none	4.70E-08	2.06E-07
						OCDD (dioxin)	3268-87-9	y	3.10E-09			3.4312E-11	none	3.43E-11	1.50E-10
						Arsenic		y	4			8.0000E-06	none	6.00E-06	2.63E-05
						Beryllium		y	3			4.5000E-06	none	4.50E-06	1.97E-05
						Cadmium		y	3			4.5000E-06	none	4.50E-06	1.97E-05
						Chromium		y	3			4.5000E-06	none	4.50E-06	1.97E-05
						Copper			6			9.0000E-06	none	9.00E-06	3.94E-05
						Lead		y	9			1.3500E-05	none	1.35E-05	5.91E-05
						Mercury		y	3			4.5000E-06	none	4.50E-06	1.97E-05
						Manganese		y	6			9.0000E-06	none	9.00E-06	3.94E-05
						Nickel		y	3			4.5000E-06	none	4.50E-06	1.97E-05
						Selenium		y	15			2.2500E-05	none	2.25E-05	9.86E-05
						Zinc			4			8.0000E-06	none	6.00E-06	2.63E-05
						CO2			22,300			246.82	none	246.8222	1081.08
						CH4			0.052			0.00	none	0.0006	0.00
						N2O			0.26			0.00	none	0.0029	0.01
						GHG (mass)									1,081.10
						GHG (CO2e)									1,084.90

Sulfur Content (wt %)	ULSD HHV (Btu/gal)
0.0015%	135,523
ULSD Density (lb/gal)	
7.1	

PM10 and PM2.5 EF lb/ton medical waste AP-42 2.3-2	
4.67 lb/ton contraband	
Burn Capacity of Incinerator	
110 lb/hour	
Contraband PM10	1.125 tpy
Contraband PM2.5	1.125 tpy

Diesel + Contraband PM10	1.24 tpy
Diesel + Contraband PM2.5	1.20 tpy

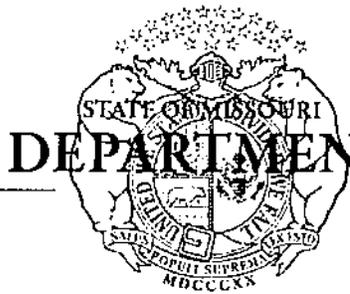
100yr GWP 40 CFR 98 Table A-1, Jan 1 2014

CO2	1
CH4	25
N2O	298

Emission factor for Benzo(b,k)fluoranthene conservatively applied to each (b) and (k)
 ULSD Diesel HHV reduced 1.1% on a volume basis from LSD. Reference: USEIA "The Transition to Ultra-Low-Sulfur Diesel Fuel: Effects on Prices and Supply" Report #: SR-CIAF/2001-01
 PM, PM10, and PM2.5 emission factors cited from AP-42 Table 1.3-1, 1.3-2, 1.3-4 for industrial boiler May 2010.

NSPS Dc defined as oil fired, initial notification record keep fuel usage per boiler and sulfur content
 MACT 8 defined as oil fired, new every other year tune-up as the CO management practice standard PM limit of 0.03 lb/MMBtu heat input
 AP-42 PM emission factors are in compliance with the limit. They equate to: Initial performance test, and every 3 years after monthly fuel mix records

PM	0.015
PM10	0.017



Eric R. Greitens, Governor • Todd Sampsell, Acting Director

DEPARTMENT OF NATURAL RESOURCES

dnr.mo.gov

FEB 14 2017

Mr. Scott Jarrett
Sheriff
Phelps County Sheriff Incinerator
500 West Second Street
Rolla, MO 65401

RE: New Source Review Permit - Project Number: 2016-11-053

Dear Mr. Jarrett:

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 and 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 pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty 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 administrative hearing commission, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.oh.mo.gov/ahc.



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Mr. Scott Jarrett
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If you have any questions regarding this permit, please do not hesitate to contact Hans Robinson 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:hrj

Enclosures

c: Southeast Regional Office
PAMS File: 2016-11-053

Permit Number: **022017-005**