



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Mike Kehoe
Governor

Kurt U. Schaefer
Director

SENT VIA EMAIL

July 31, 2025

Brent Herring
Wastewater Treatment Division
KC Water
7300 Hawthorne Road
Kansas City, MO 64120-2309

FINDING OF COMPLIANCE

Dear Brent Herring:

On July 2, 2025, a team member from the Missouri Department of Natural Resources conducted an inspection of the Blue River Wastewater Treatment Plant located at 7300 Hawthorne Road, Kansas City, in Jackson County.

Compliance with the Clean Air Act (CAA) and Missouri Air Conservation Law was evaluated. The entity was found to be **in compliance** based upon the observations made at the time of the evaluation.

The enclosed report describes the findings and may provide important recommendations to ensure continued compliance. Your cooperation in implementing those recommendations will be appreciated.

Fact sheets are available on the department's website to assist entities with understanding and following environmental requirements.

If you have any questions, or would like to schedule a time to meet with a department team member to discuss compliance requirements, please contact Christina Kerr at 816-251-0726 in the Kansas City Regional Office, 200 Unity Circle North, Suite 2A, Lee's Summit, Missouri 64086, or by email at christina.kerr@dnr.mo.gov.

Sincerely,

KANSAS CITY REGIONAL OFFICE

Michael A. Cunningham, Jr.
Air Pollution Environmental Unit Chief

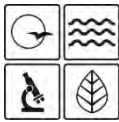
MAC/ckr

Attachment 1 – Level II State Source Inspection Form
Attachment 2 – State Source Inspection: Emission Point Log
Attachment 3 – Photos 1-9
Attachment 4 – Aerial Map

c: Air Pollution Control Program, via exchange drive
Stacie Duitsman, Kansas City Air Quality Program, via email

M:\0950039-blue-river-wwtp-20250731-rc-jackson-air
PO Box 176, Jefferson City, MO 65102-0176 • dnr.mo.gov





MISSOURI DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
AIR POLLUTION CONTROL PROGRAM
LEVEL II STATE SOURCE INSPECTION FORM

DATE AND TIME OF INSPECTION Wednesday, July 02, 2025, at 2:00 PM		COUNTY JACKSON			
NEW INFO ☐	SOURCE NAME Blue River Wastewater Treatment Plant			TELEPHONE NUMBER WITH AREA CODE 816-513-7200	
NEW INFO ☐	SOURCE LOCATION/CITY/ZIP CODE 7300 Hawthorne Road / Kansas City, MO / 64120			FAX NUMBER WITH AREA CODE	
NEW INFO ☐	SOURCE REPRESENTATIVE AND TITLE Carey Robinson, Utility Manager of Operations Kevin Herman, Operations Utility Brent Herring, Deputy Director of Water & Wastewater Operations			EMAIL ADDRESS carey.robinson@kcmo.org kevin.herman@kcmo.org brent.herring@kcmo.org	
NEW INFO ☐	MAILING ADDRESS/CITY/ZIP CODE 7300 Hawthorne Road / Kansas City, MO / 64120				
TYPE OF OPERATION Wastewater Treatment Plant				TYPE OF OPERATING PERMIT P70	
SKY CONDITION Mostly Sunny		WIND DIRECTION AND SPEED SW 7 @ mph		RELATIVE HUMIDITY 47%	
				TEMPERATURE 87 °F	
SOURCE CODES					
COUNTY 095	PLANT 0039	CLASSIFICATION A-1	NON-ATTAINMENT ☐	ACTION DATE (YY/MM/DD) 25/07/02	
RESULT CODES					
	NSPS (2 Digits) 40 CFR Part 60	SUBPART	NESHAP (2 Digits) 40 CFR Part 61	SUBPART	MACT (2 Digits) 40 CFR Part 63
SIP (2 Digits) 04	04	JJJJ	04	C	
			04	E	
OP (2 Digits) 04					
COMMENTS					
NUMBER OF EMPLOYEES 85		HOURS OF OPERATION 24/7		LAST INSPECTION July 25, 2023	
INTRODUCTION The Blue River Wastewater Treatment Plant is a 120 million gallon per day capacity municipal wastewater treatment facility. Currently, Blue River is utilizing lime stabilization to handle the sludge while a new waste management system is being built. This new system will be utilizing a thermal hydrolysis process (THP). Once constructed, the facility will be renamed Blue River Biosolids Facility. It will be the first plant of its kind in the Midwest to employ a THP process to recycle human and domestic waste into useful energy sources, including biosolids and biogas. Once the new system is initiated, the wastewater treatment capacity will increase to 240 million gallons per day.					
CONSTRUCTION PERMITS Construction Permit I-181 was issued for an odor control incinerator. The odor control incinerator is no longer in use. Construction Permit 510-C was issued on August 30, 2004, and superseded the previous Construction Permits 510, 510-A, and 510-B. The permit allowed three 450 kW generators powered by Waukesha engines. Special conditions applied exclusively to the generators. These generators were removed from the facility and sold in February of 2016. Construction Permit 591-C was issued on June 15, 1992, to modify two sludge incinerators and was amended on April 30, 2014. This permit superseded the previous Construction Permits 591, 591-A, and 591-B. Special conditions applied exclusively to the incinerators, which have been permanently shut down. <i>The last incinerator was put into standby mode March 2020 and taken out of service permanently in July 2020. No sludge was fed to the incinerator after March 22, 2020.</i>					

Construction Permit 791 was issued on July 10, 1997, for the installation of a 5,000 gallon unleaded gasoline underground storage tank. This tank has been removed.

Construction Permit 1428 was issued on November 19, 2015, for the installation of one 350 kW natural gas emergency generator at 7601 Front Street. Special conditions of the permit include the following:

- Operate only during emergency situations and for short periods of maintenance and performance testing. Usage may not exceed 500 hours annually. *Appears to be in compliance. The run hours as of July, 2023 were 112.8, and the last run hours documented prior to unit being taken out of service May 1, 2024 was 122.1 hours.*

Note: Current generator is out of service as of 05/10/2024 because the Woodward governor actuator that controls the engine speed has failed. Replacement part could not be located; a new Bobcat PG570WCU-2B-T4F Diesel Generator, 500 kW generator is currently on order. Per the manufacturer specification sheet, it has an EPA Tier 4 rating.

- The generator shall be equipped with a non-resettable hour meter. *Appears in compliance. Photo of digital control panel hour meter was provided.*

[This permit was issued by the Kansas City Health Department under Kansas City, Missouri, Code of Ordinance Chapter 8-Air Quality, but not under state regulation 10 CSR 10-6.060, Construction Permits, because the requirements that the generator only be used in emergency situations and for no more than 500 hours annually exempt it under 10 CSR 10-6.061(3)(BB).]

Construction Permit 1458 was issued on April 7, 2017, to construct and operate two new boilers fueled by digester gas or natural gas. Special conditions of the permit include the following:

- Use of digester gas for the two boilers is limited to 5,256 hours in any consecutive 12-month period. *No digester gas has been used in these boilers since installation.*
- The digester gas shall be tested twice within the year following issuance of this permit. The sulfur content from tested digester gas shall be used in SO₂ calculations. *Appears in compliance. Boilers no longer have the ability to combust digester gas; this function has been permanently removed.*
- Only natural gas or digester gas shall be used in the two-digester boilers. *Appears in compliance.*

Blue River WWTP submitted an air construction permit application (Project #2020-12-039) for their new thermal hydrolysis process (THP). Plans for the THP emission control system were changed and the required updates for the completion of the air construction permit were not provided to the Air Pollution Control Program permitting section. Facility started project construction without a finalized construction permit or a pre-construction waiver, which is a violation of 10 CSR 10-6.060, *Construction Permits Required*. A Referral Notice of Violation was issued in 2023 for this violation. Blue River must not begin operation of the THP process until a construction permit has been issued.

NEW SOURCE PERFORMANCE STANDARDS (NSPS)

Federal regulation **40 CFR Part 60, Subpart JJJJ**, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*, applies to the natural gas fired 350 kW emergency generator. Applicable requirements include the following:

- Comply with the emission standards in section 60.4233 of the subpart. Compliance with those standards may be achieved by the following:
 - o Purchase an engine certified according to the regulation. *Appears in compliance.*
 - o Operate and maintain the engine according to the manufacturer's written instructions. *Appears in compliance. Log book records from January 16, 2020, to March 2025 for engine run hours and preventive maintenance were provided.*
 - o Keep records of the engine manufacturer's data indicating compliance with the standards.
 - o Equip the engine with a non-resettable hour meter prior to the engine start-up. *Appears in compliance. Log book records indicate that generator has 122.1 run hours as of March 1, 2024.*

Unit has been out of order since May 2024.

- In order to remain classified as an emergency engine, the engine shall not:
 - o Be used for peak shaving, to supply power to an electric grid, or to supply power to another entity.
 - o Operate more than 100 hours per year for maintenance checks and readiness testing recommended by federal, state, or local governments, the manufacturer, the vendor, or the insurance company associated with the engine.
 - o Operate more than 50 hours per year in non-emergency situations; however, these hours are counted toward the 100 hours provided for maintenance and testing.

Appears to be in compliance. The run hours as of July 2023 were 112.8, and the last run hours documented prior to unit being taken out of service was 122.1 hours.

Note: Current generator is out of service as of 05/10/2024 because the Woodward governor actuator that controls the engine speed has failed. Replacement part could not be located. A new Bobcat PG570WCU-2B-T4F Diesel Generator 500 kW generator is currently on order. Per the manufacturer specification sheet, it has an EPA Tier 4 rating.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)

Federal regulation **40 CFR Part 61, Subpart C, National Emission Standards for Beryllium**, required an emission limit for beryllium at < 10g per 24-hour period. *All incinerators have been removed from property so this standard no longer applies.*

Federal regulation **40 CFR Part 61, Subpart E, National Emission Standard for Mercury**, applied to the facility. This regulation established an emission limit for mercury < 3.2 kg (7.1 lb) per 24-hour period. If emissions exceed 1.6 kg (3.5 lb) per 24-hour period, annual monitoring is required. *All incinerators have been removed from property so this standard no longer applies.*

OPERATING PERMIT

Blue River Wastewater Treatment Plant was issued **Part 70 Operating Permit OP2011-026** on June 2, 2011. This permit was set to expire June 2, 2016. The permit renewal is currently undergoing technical review. The existing permit will remain in effect until the renewal is finalized. This permit incorporates the conditions of Blue River Wastewater Treatment Plant's construction permits and applicable federal subparts. Additional special conditions include the following:

- Conduct and document observations to determine compliance with the fugitive emissions regulations using the monitoring schedule outlined in the permit. *In compliance. Facility has been conducting fugitive emission observations per the Part 70 Operating Permit monitoring schedule. Provided documentation was from January 2024 to current.*
- Conduct and document Method 22 opacity readings on each emission unit using the monitoring schedule outlined in the permit. If emissions are observed, conduct Method 9 readings. *This operating permit condition no longer applies as the last incinerator was put into standby mode March 2020 and taken out of service permanently in July 2020.*
- A combined Annual Compliance Certification (ACC) for 2024 and Semi-Annual Monitoring (SAM) report for the period of July – December 2024 was received March 17, 2025.
- 10 CSR 10-6.191, *Sewage Sludge Incinerators*: This regulation applied to the active sewage sludge incinerator and incorporates by reference **40 CFR Part 60, Subpart M, Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units**. *This regulation no longer applies to the facility as all three of the incinerators have been removed.*
- 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*, and 10 CSR 10-6.261, *Control of Sulfur Dioxide Emissions*: These regulations apply to the portable pumps, portable compressors, portable emergency generators, and the stationary 350 kW emergency generator at the facility. The facility

demonstrates compliance by only using pipeline grade natural gas and only accepting for delivery ultra-low sulfur distillate fuel oil (15 ppm or less) for use in these units. *Appears in compliance.*

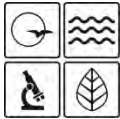
EMISSIONS INVENTORY QUESTIONNAIRE (EIQ)

Blue River Wastewater Treatment Plant submitted the full 2024 **EIQ** on April 28, 2025. The following emissions were reported in tons: PM₁₀ = 0.21, SO_x = 11.51, NO_x = 6.38, VOC = 7.42, CO = 18.48, PM_{2.5} = 0.21, and NH₃ = 0.09.

☒	FACILITY IN COMPLIANCE	INSPECTOR SIGNATURE  Chris Kerr	
☐	FACILITY NOT IN COMPLIANCE UNSATISFACTORY FINDINGS		
☐	FACILITY NOT IN COMPLIANCE LETTER OF WARNING	TITLE Environmental Specialist	OFFICE Kansas City Regional Office
☐	FACILITY NOT IN COMPLIANCE NOTICE OF EXCESS EMISSION #	FACILITY REPRESENTATIVE SIGNATURE/TITLE N/A - report delivered by email	
☐	FACILITY NOT IN COMPLIANCE NOTICE OF VIOLATION #		

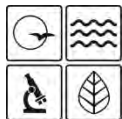
LEVEL II STATE SOURCE INSPECTION FORM

Date/time/county	Enter date/time inspection took place. Choose name of county in which source is located from drop box.
New information	Check only boxes for the lines that include information changed from last inspection. Enter requested information. Use source information from appropriate databases.
Type of operation	Enter activity or products.
Type of operating permit	Enter one: BAS – Basic, INT – Intermediate, P70 – Part 70, UNK – Unknown, NOP – No operating permit, or NOP-demPAL – Synthetic de minimus.
Weather conditions	Enter requested information.
Source codes	
County/plant	Choose the three-digit FIPS county code from the drop box and add the four-digit plant code.
Classification	Check the appropriate databases for classification and choose from drop box. Provide documentation if classification has changed. General description of classes: A-1 – Stationary source with Potential to Emit, or PTE, ≥ 100 tons per year, or TPY, of any regulated air pollutant with federally enforceable restrictions considered. A-2 – Stationary source with PTE ≥ 100 TPY of any regulated air pollutant when uncontrolled, but PTE < 100 TPY with federally enforceable restrictions considered; excludes A-3s. A-3 – Not class A-1 and has PTE ≥ 10 TPY of any Hazardous Air Pollutant, or HAP, or ≥ 25 TPY of any combination of HAPs. HAPs are defined by Section 112 of the Clean Air Act. B – Potential uncontrolled emissions $>$ de minimus but not class A. D – De minimus is defined by 10 CSR 10-6.020 E – Not classified; data has been submitted. UNK – Not classified; no emissions inventory questionnaire has been submitted.
Non-attainment	Check if source is located in non-attainment area.
Action date	Record date of inspection in requested format.
Result codes	Use result codes to record compliance status: 04 – in compliance, 05 – not in compliance, 06 – not operating at time of inspection, or MU – unknown.
SIP	Record compliance status with respect to rule in the State Implementation Plan, or SIP. In general, all Chapter 2 – 5 rules that are checked during inspections are in the SIP; EPA SIP approval may be pending on some rules applicable in active nonattainment areas. Chapter 6 MACT, NSPS, NESHAP, and asbestos rules are not in the SIP. For complete information on federally approved rules, check Region 7's website at: http://www3.epa.gov/region07/air/rules-w3/missouri/toc.htm
OP	Record compliance status with respect to the operating permit. Status includes submission of required documents, compliance with monitoring and record keeping requirements, and all state regulations.
NSPS/MACT/NESHAP	Record compliance status and applicable subpart or each regulation. Do not include subparts that MoDNR has not accepted enforcement delegation. Use comment section to give details of noncompliance.
Comments	Record pertinent details, conditions, notes on compliance, and activities related to RSMo. 640.035 (activities above and beyond minimum compliance). Check confidential status for companies that request confidentiality for specific information. Do not record confidential information on inspection forms.
Closing information	Complete requested information.



DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
AIR POLLUTION CONTROL PROGRAM
STATE SOURCE INSPECTION: EMISSION POINT LOG

SOURCE NAME			COUNTY CODE		PLANT CODE	DATE OF INSPECTION			
Blue River Wastewater Treatment Plant			095		0039	July 2, 2023			
EMISSION POINT			CONTROL DEVICE			OPACITY (%)	COMPLIANCE		COMMENTS
I.D. #	DESCRIPTION	PROCESS	I.D. #	TYPE	OPERATING PARAMETERS		STATUS	METHOD	
EP-003	Stack	Sludge digester flare					04		New flare and a biogas plant where the product can be injected straight into the Spires pipeline is currently under construction.
EP-113	Stack	2016 digester gas boiler #1 SN#FB625-30W-45 6.3 MMBtu/hr,					04		
EP-114	Stack	2016 digester gas boiler #2 SN FB625-30W-44 6.3 MMBtu/hr,					04		
EP-116	Stack	Cummins emergency gen set 350 kW-Natural Gas Model 35OGFEB SN M13A037962 2013 Build Date ===== Engine No. 37256090 Family CCEXB19.OENA Model KTA19G Date of Mfg. December 2012 HP/kW 530/395					06		<u>122.1 hours as of March 1, 2024</u> Current generator is out of service as of 05/10/2024 because the Woodward governor actuator that controls the engine speed has failed. Replacement part could not be located; a new Bobcat PG570WCU-2B-T4F diesel 500 kW generator is currently on order. Per the manufacturer specification sheet, it has an EPA Tier 4 rating.
EP-119	Stack	2016 odor control system boiler Lochinvar, LLC Model FBN1501 SN 1703104558690 1.5 MMBtu/hr, natural gas					06		This boiler is not in use at this time. Facility is unsure how unit will be utilized in the future.



STATE SOURCE INSPECTION: EMISSION POINT LOG

EMISSION POINT LOG GUIDANCE AND EXAMPLES

Source name Record source name as it appears on Source Inspection Form.

County code Record three-digit FIPS code.

Plant code Record four-digit plant identification number.

Date of inspection Record inspection date.

Emission point

I.D. # Ideally these numbers match the emission point numbers on the source Emission Inventory Questionnaire, or EIQ.

Description Examples: stack, storage pile, tailings pile, haul road, fuel tank, truck unloading, water heater.

Process Examples: crushing, loading, storage, heating, drying, hauling, enclosure.

Control Device

I.D. # These numbers should match the control device numbers on the source Emission Inventory Questionnaire, or EIQ.

Type Examples: baghouse, cyclone, electrostatic precipitator, watering.

Operating Parameters Examples: pressure drop, feed rates, temperature, process rate, water flow rate, water pressure.

Opacity Record opacity if applicable.

Compliance

Status Use results codes to indicate compliance status of each emission point:
04 – in compliance, **05** – not in compliance, **MU** – unknown, **06** – not operating at time of inspection.

Method Indicate method of determining compliance. Examples: Method 9, calculations, visual check, records check.

Comments Enter relevant information not already recorded.

Attachment 3 – Photos
Blue River Wastewater Treatment Plant
July 31, 2025
Page 1



Photo 1
 Taken By: Christina Kerr
 Entity: Blue River Wastewater Treatment Plant
 Facility ID: 095-0039
 Location: 7300 Hawthorne Road, Kansas City
 Description: Overview of facility.
 Date Taken: July 2, 2025
 Media: Air Pollution Control



Photo 2
 Taken By: Christina Kerr
 Entity: Blue River Wastewater Treatment Plant
 Facility ID: 095-0039
 Location: 7300 Hawthorne Road, Kansas City
 Description: 2016 digester gas boiler 1.
 Date Taken: July 2, 2025
 Media: Air Pollution Control



Photo 3
 Taken By: Christina Kerr
 Entity: Blue River Wastewater Treatment Plant
 Facility ID: 095-0039
 Location: 7300 Hawthorne Road, Kansas City
 Description: Data plate for digester gas boiler 1.
 Date Taken: July 2, 2025
 Media: Air Pollution Control

Attachment 3 – Photos
Blue River Wastewater Treatment Plant
July 31, 2025
Page 2



Photo 4
 Taken By: Christina Kerr
 Entity: Blue River Wastewater Treatment Plant
 Facility ID: 095-0039
 Location: 7300 Hawthorne Road, Kansas City
 Description: 2016 digester gas boiler 2.
 Date Taken: July 2, 2025
 Media: Air Pollution Control



Photo 5
 Taken By: Christina Kerr
 Entity: Blue River Wastewater Treatment Plant
 Facility ID: 095-0039
 Location: 7300 Hawthorne Road, Kansas City
 Description: Data plate for digester gas boiler 2.
 Date Taken: July 2, 2025
 Media: Air Pollution Control



Photo 6
 Taken By: Christina Kerr
 Entity: Blue River Wastewater Treatment Plant
 Facility ID: 095-0039
 Location: 7300 Hawthorne Road, Kansas City
 Description: 2016 Lochinvar odor control system boiler. Not in use.
 Date Taken: July 2, 2025
 Media: Air Pollution Control

Attachment 3 – Photos
Blue River Wastewater Treatment Plant
July 31, 2025
Page 3



Photo 7
Taken By: Christina Kerr
Entity: Blue River Wastewater Treatment Plant
Facility ID: 095-0039
Location: 7300 Hawthorne Road, Kansas City
Description: 2013 Cummins natural gas emergency generator set, model 35OGFEB.
Date Taken: July 2, 2025
Media: Air Pollution Control



Photo 8
Taken By: Christina Kerr
Entity: Blue River Wastewater Treatment Plant
Facility ID: 095-0039
Location: 7300 Hawthorne Road, Kansas City
Description: Sludge digester flare.
Date Taken: July 2, 2025
Media: Air Pollution Control



Photo 9
Taken By: Christina Kerr
Entity: Blue River Wastewater Treatment Plant
Facility ID: 095-0039
Location: 7300 Hawthorne Road, Kansas City
Description: New flare that is currently under construction.
Date Taken: July 2, 2025
Media: Air Pollution Control

Attachment 4 – Aerial Map
Blue River Wastewater Treatment Plant
July 31, 2025





MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Michael L. Parson
Governor

Dru Buntin
Director

CERTIFIED MAIL: 9414 8118 9956 2066 6402 05

August 28, 2023

Brent Herring, Wastewater Treatment Division Manager
KC Water Wastewater Treatment Division
7300 Hawthorne Road
Kansas City, MO 64120-2309

REFERRAL NOTICE OF VIOLATION
AIR POLLUTION CONTROL RNOV# KCAP23007

Dear Brent Herring:

On July 25, 2023, a team member from the Missouri Department of Natural Resources conducted an inspection of the Blue River Wastewater Treatment Plant located at 7300 Hawthorne Road, Kansas City, in Jackson County.

Compliance with the Clean Air Act (CAA) Missouri Air Conservation Law was evaluated. The enclosed report documents the serious and significant violations that were identified. A Referral Notice of Violation (RNOV) is being issued for the violations identified in the enclosed report.

Violations of federally enforceable CAA requirements are to be reported to the United States Environmental Protection Agency (US EPA) and are called Federally Reportable Violations (FRVs). These violations are considered to be FRVs. A Referral Notice of Violation is being issued for the serious and significant violations that were identified.

Because Blue River Wastewater Treatment Plant is an applicable source and these violations are considered to be FRVs, they are required to be reported in US EPA's national database as having occurred and addressed as expeditiously as possible. The applicable CAA laws requiring FRV reporting in this matter are New Source Review (NSR), US EPA approved State Implementation Plan (SIP), and Title V.

This case is being referred to the Department's Air Pollution Control Program Compliance and Enforcement Section for further action. If you have questions regarding the status of the enforcement case, or would like to meet with Department team members to discuss compliance requirements, please contact Shelby Miller at 573-751-4817 in the Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102, or by email at shelby.miller@dnr.mo.gov.

Sincerely,

KANSAS CITY REGIONAL OFFICE

Karen J. Rouse
Regional Director

KJR/ckr

Enclosure: Report of Inspection

c: Richard Swartz, Air Pollution Control Program, via exchange drive
DNR.DEQ Referral Document Notification, via email
Joe Terriguez, US EPA Region 7, via email
Stacie Duitsman, Kansas City Air Quality Program, via email

PO Box 176, Jefferson City, MO 65102-0176 • dnr.mo.gov



Compliance Summary

Facility Name: Blue River Waste Water Treatment Plant

Facility ID Number: 095-0039

Inspection Date: July 25, 2023

This summary is intended to direct your attention to violations noted during the inspection of your facility.

Violations noted during the inspection:

1. Facility was not following the fugitive emission observations monitoring schedule as outlined in the operating permit.
2. Facility has commenced construction of new equipment (thermal hydrolysis process) prior to issuance of a construction permit or a pre-construction waiver.

Actions necessary to return to compliance:

All required actions must be addressed by October 2, 2023.

1. Facility must implement and maintain the fugitive emission observation monitoring schedule as outlined in Part 70 Operating Permit OP2011-026.
2. Ensure that emission system updates for the thermal hydrolysis process (THP) is provided promptly to the Air Pollution Control Program for the construction permit update. Do not begin operation of the THP until the new construction permit is issued.

Refer to the Referral Notice of Violation section on page 4 of the enclosed report for detailed information about these violations and how to correct them so your facility may be returned to compliance.

We appreciate your prompt attention to these issues. If you have any questions, or if you would like to meet to discuss these violations further, please contact Shelby Miller in the Air Pollution Control Program at 573-751-4817 or at shelby.miller@dnr.mo.gov or contact Christina Kerr in the Kansas City Regional Office at 816-251-0726 or at christina.kerr@dnr.mo.gov.

**Missouri Department of Natural Resources
Kansas City Regional Office
Report of Inspection
Blue River Wastewater Treatment Plant
7300 Hawthorne Road/Kansas City/Jackson County
Facility ID: 095-0039
August 28, 2023**

Introduction

A routine compliance and operation inspection of Blue River Wastewater Treatment Plant was conducted to determine compliance with the Missouri Air Conservation Law and its implementing regulations.

Participants included:

Blue River Wastewater Treatment Plant

Carey Robinson,	Utility Manager of Operations,	816-513-7200,
carey.robinson@kcmo.org		
Kevin Herman,	Operations Utility Superintendent,	816-513-7200,
kevin.herman@ikcmo.org		
Brent Herring,	Deputy Director of Water & Wastewater Operations,	816-513-7200,
brent.herring@kcmo.org		

MoDNR

Christina Kerr,	Environmental Specialist
-----------------	--------------------------

On July 25, 2023, this inspection was conducted under the authority of the Missouri Air Conservation Law §643.050.1(8) RSMo.

Facility Description and History

The Blue River Wastewater Treatment Plant is a 120 million gallon per day capacity municipal wastewater treatment facility located in the Lower Missouri-Crooked Watershed. Wastewater received at the plant is treated and discharged into the Missouri River. Until recently, solids removed from the wastewater was dewatered and burned in incinerators, landfilled, or sent to Birmingham Farm for land application. The installation had three multiple hearth incinerators, two of which were modified with fume afterburners and scrubbers to reduce emissions to the ambient air. Only the two modified incinerators were permitted to operate. The third incinerator was left to be modified and brought into service should there be a necessity to do so. In reality, the facility operated only one incinerator and the others were inoperable. Other emission units include three engine generators and two boilers fueled with digester gas and pipeline natural gas; two odor control flares to burn excess digester gas with pipeline natural gas pilots; and portable diesel powered pumps, generators and compressors. The installation had the potential to emit major levels of nitrogen oxides (NO_x).

As of July 2020, the last remaining incinerator was shut down and Blue River WWTP is currently utilizing lime stabilization to handle the sludge while a new waste management system is being built.

KC Water had reviewed the existing system and available replacement options and determined the best economic and earth-friendly investment for Kansas City was to use a Thermal Hydrolysis Process (THP).

Once constructed, the facility will be renamed Blue River Biosolids Facility. It will be the first plant of its kind in the Midwest to employ a THP process to recycle human and domestic waste into useful energy sources, including biosolids and biogas.

Blue River WWTP submitted a Part 70 Operating Permit renewal (Project #2015-11-060), which is currently under technical review by the Air Pollution Control Program (APCP). An air construction permit application (Project #2020-12-039) has been submitted for the THP project. Plans for the THP emission control system were changed, but the updates have not yet been provided to the APCP permitting section; therefore, the construction permit was not yet been issued.

The facility is located at UTM 15N 370663.93 m E, 4331159.87 m N.

Discussion of Inspection and Observations

The inspection was conducted during normal business hours. Prior notification was not provided. Upon approaching the site, I noted there were no visible emission from the facility and did not smell any odors that exceeded the parameters laid out in 10 CSR 10-6.165, *Restriction of Emission of Odors*.

Upon arrival, I met with Carey Robinson, the Utility Manager of Operations, and Kevin Herman, the Operations Utility Superintendent. I then outlined the purpose and scope of the inspection. I asked if we could sit down and review the paperwork required for the inspection and review current plant processes.

I told Robinson that I understood Blue River WWTP was in the middle of construction for the new THP system and that the incinerators were removed. Robinson explained that they were using lime stabilization on the waste and land applying it. I then asked about the construction permit for the THP system currently under construction.

Robinson was unsure of the air construction permit status and referred me to Brent Herring, the Deputy Director, for the permit questions. I was then taken to Herring's office. I asked him about the status of the new construction permit of the THP System and whether the fugitive emission observations were being conducted. Herring confirmed that currently no fugitive emission observations were done after the last incinerator was removed (Violation #1).

In regard to the construction permit for the THP system, Herring was unsure whether the facility was required to have an air permit with the new upgraded emission system because it was going to recycle the waste into biosolids and biogas. In addition, the gas would be injected directly into a Spire pipeline. I told him that I would contact our permitting section and speak with them to see if for some reason it had been closed out because of a significant decrease in emissions. I told him that I would follow up with him on this issue.

Kevin Herman, the Operations Utility Superintendent, then took me for the facility walk around to view the emission points, including digester boilers, disconnected odor control system boiler, and the digester flare. Then we each drove to the Front Street address where the Cummins emergency generator is located.

After looking at the generator, I concluded the inspection with Herman, as he agreed to send me a photo of the digital hour meter with the current digital read out and the generator run times and maintenance logs in order to confirm compliance with generator requirements.

In the following days after the inspection, I received the generator information from Herman. Additionally, I also reached out to APCP to check the status of the THP air construction permit and found that permitting had been waiting for some updates to calculations due to a redesign of the proposed equipment. I also confirmed no pre-construction waiver had been issued. I reached out to Jessica Morrison from Burns and McDonnell, Blue River's environmental consultant company. Morrison also confirmed that the updated construction permit information was never submitted. Blue River WWTP did not provide the required updates for the completion of the air construction permit (Project #2020-12-039). Beginning construction without a finalized construction permit or pre-construction waiver is a violation of 10 CSR 10-6.060, *Construction Permits Required* (Violation #2).

Compliance Determination and Required Actions

Blue River Wastewater Treatment Plant was found to be out of compliance with the Missouri Air Conservation Law and its implementing regulations based upon observations made during the inspection.

Referral Notice of Violation

1. Failed to comply with Permit Condition PW001 of Part 70 Operating Permit OP2011-026, which is a violation of 10 CSR 10-6.065, *Operating Permits*. Facility was not conducting fugitive emission observations as outlined in the operating permit.

REQUIRED ACTIONS: Facility must implement and maintain the fugitive emission observations monitoring schedule as outlined in the Part 70 Operating Permit OP2011-026.

2. Construction of new equipment prior to issuance of a construction permit, which is a violation of 10 CSR 10-6.060, *Construction Permits Required*. 10 CSR 10-6.060(1)(D) requires that owners or operators obtain a permit prior to the beginning of actual construction or modification of any installation subject to this rule and prior to operation after construction or modification. Blue River WWTP is currently constructing a thermal hydrolysis process (THP) prior to the issuance of a construction permit or a pre-construction waiver.

REQUIRED ACTIONS: Blue River WWTP must not begin operation of the THP system until the new construction permit for that equipment is issued. Work with APCP's permitting section to expeditiously obtain the construction permit for the THP.

Please submit a written response to Shelby Miller at 573-751-4817 in the Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102, or by email at shelby.miller@dnr.mo.gov, and Christina Kerr, of KCRO, indicating how you plan to address all required actions in this report by **October 2, 2023**. The written response shall explain what actions have been taken to correct the violations and prevent reoccurrence in the future.

Report of Inspection
Blue River Wastewater Treatment Plant
August 28, 2023
Page 4

Additional Comments/Conclusion

None

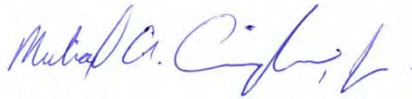
Signatures

SUBMITTED BY:



Christina Kerr
Environmental Specialist
Kansas City Regional Office

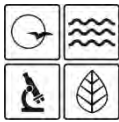
REVIEWED BY:



Michael A. Cunningham, Jr.
Air Pollution Environmental Unit Chief
Kansas City Regional Office

Attachments

- Attachment # 1 – Level II State Source Inspection Form**
- Attachment # 2 – State Source Inspection: Emission Point Log**
- Attachment # 3 – Photos 1-9**



MISSOURI DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
AIR POLLUTION CONTROL PROGRAM
LEVEL II STATE SOURCE INSPECTION FORM

DATE AND TIME OF INSPECTION Tuesday, July 25, 2023, at 2:00 PM		COUNTY JACKSON				
NEW INFO ☐	SOURCE NAME Blue River Wastewater Treatment Plant		TELEPHONE NUMBER WITH AREA CODE 816-513-7200			
NEW INFO ☐	SOURCE LOCATION/CITY/ZIP CODE 7300 Hawthorne Road / Kansas City, MO / 64120		FAX NUMBER WITH AREA CODE			
NEW INFO ☐	SOURCE REPRESENTATIVE AND TITLE Carey Robinson, Utility Manager of Operations Kevin Herman, Operations Utility Superintendent Brent Herring, Deputy Director of Water & Wastewater Operations		EMAIL ADDRESS carey.robinson@kcmo.org kevin.herman@kcmo.org brent.herring@kcmo.org			
NEW INFO ☐	MAILING ADDRESS/CITY/ZIP CODE 7300 Hawthorne Road / Kansas City, MO / 64120					
TYPE OF OPERATION Wastewater Treatment Plant			TYPE OF OPERATING PERMIT P70			
SKY CONDITION Sunny	WIND DIRECTION AND SPEED S @ 8 mph	RELATIVE HUMIDITY 55%	TEMPERATURE 89 °F			
SOURCE CODES						
COUNTY 095	PLANT 0039	CLASSIFICATION A-1	NON-ATTAINMENT ☐			
ACTION DATE (YY/MM/DD) 23/07/25						
RESULT CODES						
	NSPS (2 Digits) 40 CFR Part 60	SUBPART	NESHAP (2 Digits) 40 CFR Part 61	SUBPART	MACT (2 Digits) 40 CFR Part 63	SUBPART
SIP (2 Digits) 05	04	JJJJ(4J)	04	C		
			04	E		
OP (2 Digits) 05						
COMMENTS						
NUMBER OF EMPLOYEES 85		HOURS OF OPERATION 24/7		LAST INSPECTION September 14, 2021		
CONSTRUCTION PERMITS						
Construction Permit I-181 was issued for an odor control incinerator. The odor control incinerator is no longer in use. Construction Permit 510-C was issued on August 30, 2004, and superseded the previous Construction Permits 510, 510-A, and 510-B. The permit allowed three 450 KW generators powered by Waukesha engines. Special conditions applied exclusively to the generators. These generators were removed from the facility and sold in February of 2016. Construction Permit 591-C was issued on June 15, 1992, to modify two sludge incinerators and was amended on April 30, 2014. This permit superseded the previous Construction Permits 591, 591-A, and 591-B. Special conditions applied exclusively to the incinerators, which have been permanently shut down. <i>The last incinerator was put into standby mode March 2020 and taken out of service permanently in July 2020. No sludge was fed to the incinerator after March 22, 2020. Records must be maintained for at least five years after shutdown.</i> Construction Permit 791 was issued on July 10, 1997, for the installation of a 5,000 gallon unleaded gasoline underground storage tank. This tank has been removed. Construction Permit 1428 was issued on November 19, 2015, for the installation of one 350 KW natural gas emergency generator at 7601 Front Street. Special conditions of the permit include the following: Operate only during emergency situations and for short periods of maintenance and performance testing. Usage may not exceed 500 hours annually. <i>Appears in compliance. The generator is routinely operated for periods of 15 minutes to 1 hour monthly for maintenance purposes and is not operated for other purposes outside of emergency usage. Photos of operator log book were provided, which showed run history.</i>						

- The generator shall be equipped with a non-resettable hour meter. *Appears in compliance. Photo of digital control panel hour meter was provided, which indicated a total of 112.8 run hours.*

[This permit was issued by the Kansas City Health Department under Kansas City, Missouri, Code of Ordinance Chapter 8-Air Quality, but not under state regulation 10 CSR 10-6.060, Construction Permits, because the requirements that the generator only be used in emergency situations and for no more than 500 hours annually exempt it under 10 CSR 10-6.061(3)(BB).]

Construction Permit 1458 was issued on April 7, 2017, to construct and operate two new boilers fueled by digester gas or natural gas. Special conditions of the permit include the following:

- Use of digester gas for the two boilers is limited to 5,256 hours in any consecutive 12-month period. *No digester gas has been used in these boilers since installation.*
- The digester gas shall be tested twice within the year following issuance of this permit. The sulfur content from tested digester gas shall be used in SO₂ calculations. *Boilers no longer have the ability to combust digester gas; this function has been permanently removed. Appears in compliance.*
- Only natural gas or digester gas shall be used in the two-digester boilers. *Appears in compliance.*

Blue River WWTP submitted an air construction permit application (Project #2020-12-039) for their new thermal hydrolysis process (THP). Plans for the THP emission control system were changed and the required updates for the completion of the air construction permit were not provided to the Air Pollution Control Program permitting section. Facility started project construction without a finalized construction permit or a pre-construction waiver which is a violation of 10 CSR 10-6.060, *Construction Permits Required. Not in compliance; refer to report.*

NEW SOURCE PERFORMANCE STANDARDS (NSPS)

Federal regulation **40 CFR Part 60, Subpart JJJJ (4J)**, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*, applies to the natural gas fired 350 KW emergency generator. Applicable requirements include the following:

- Comply with the emission standards in section 60.4233 of the subpart. Compliance with those standards may be achieved by the following:
 - o Purchase an engine certified according to the regulation. *Appears in compliance.*
 - o Operate and maintain the engine according to the manufacturer's written instructions. *Appears in compliance. Log book records from January 16, 2020, to July 21, 2023, for engine run hours and preventive maintenance were provided.*
 - o Keep records of the engine manufacturer's data indicating compliance with the standards.
 - o Equip the engine with a non-resettable hour meter prior to the engine start-up. *In compliance. Digital meter shows that generator has 112.8 run hours as of July 27, 2023. Photo was sent per email after the inspection.*
- In order to remain classified as an emergency engine, the engine shall not:
 - o Be used for peak shaving, to supply power to an electric grid, or to supply power to another entity.
 - o Operate more than 100 hours per year for maintenance checks and readiness testing recommended by federal, state, or local governments, the manufacturer, the vendor, or the insurance company associated with the engine.
 - o Operate more than 50 hours per year in non-emergency situations; however, these hours are counted toward the 100 hours provided for maintenance and testing.

Appears to be in compliance. The current run hours for 2023 are 4.6 hours.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)

Federal regulation **40 CFR Part 61, Subpart C**, *National Emission Standards for Beryllium*, required an emission limit for beryllium at <10g per 24-hour period. *All incinerators have been removed from property so this standard no longer applies. Facility is required to maintain any records that apply to the units for at least five years after incinerator shutdown.*

Federal regulation **40 CFR Part 61, Subpart E**, *National Emission Standard for Mercury*, applied to the facility. This regulation established an emission limit for mercury <3.2 kg (7.1 lb) per 24-hour period. If emissions exceed 1.6 kg (3.5 lb) per 24-hour period, annual monitoring is required. *All incinerators have been removed from property so this standard no longer applies. Facility is required to maintain any records that apply to the units for at least five years after incinerator shutdown.*

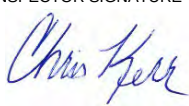
OPERATING PERMIT

Blue River Wastewater Treatment Plant was issued **Part 70 Operating Permit OP2011-026** on June 2, 2011. This permit was set to expire June 2, 2016. The permit renewal is currently undergoing technical review. The existing permit will remain in effect until the renewal is finalized. This permit incorporates the conditions of Blue River Wastewater Treatment Plant's construction permits and applicable federal subparts. Additional special conditions include the following:

- Conduct and document observations to determine compliance with the fugitive emissions regulations using the monitoring schedule outlined in the permit. **Not in compliance.** Facility is still required to conduct fugitive emission observations per the Part 70 Operating Permit monitoring schedule. **Refer to report.**
- Conduct and document Method 22 opacity readings on each emission unit using the monitoring schedule outlined in the permit. If emissions are observed, conduct Method 9 readings. *This operating permit condition no longer applies as the last incinerator was put into standby mode March 2020 and taken out of service permanently in July 2020.*
- A combined Annual Compliance Certification (ACC) for 2022 and Semi-Annual Monitoring (SAM) report for the period of July-December 2022 was received March 28, 2023.
- 10 CSR 10-6.191, Sewage Sludge Incinerators: This regulation applied to the active sewage sludge incinerator and incorporates by reference **40 CFR Part 60, Subpart MMMM, Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units.** *This regulation no longer applies to the facility as all three of the incinerators have been removed. Facility is required to maintain any records that apply to the units for at least five years after incinerator shutdown.*
- 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*, and 10 CSR 10-6.261, *Control of Sulfur Dioxide Emissions*: These regulations apply to the portable pumps, portable compressors, portable emergency generators, and the stationary 350 KW emergency generator at the facility. The facility demonstrates compliance by only using pipeline grade natural gas and only accepting for delivery ultra-low sulfur distillate fuel oil (15 ppm or less) for use in these units. *Appears in compliance.*

EMISSIONS INVENTORY QUESTIONNAIRE (EIQ)

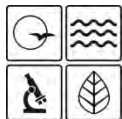
Blue River Wastewater Treatment Plant submitted the full 2022 **EIQ** on April 27, 2023. The following emissions were reported in tons: PM₁₀ = 0.22, SO_x = 1.50, NO_x = 3.40, VOC = 1.10, CO = 4.55, PM_{2.5} = 0.22, and NH₃ = 0.09.

☐	FACILITY IN COMPLIANCE	INSPECTOR SIGNATURE  Chris Kerr	
☐	FACILITY NOT IN COMPLIANCE UNSATISFACTORY FINDINGS		
☐	FACILITY NOT IN COMPLIANCE LETTER OF WARNING	TITLE Environmental Specialist	OFFICE Kansas City Regional Office
☐	FACILITY NOT IN COMPLIANCE NOTICE OF EXCESS EMISSION #	FACILITY REPRESENTATIVE SIGNATURE/TITLE N/A - Delivered by Certified Mail	
☒	FACILITY NOT IN COMPLIANCE NOTICE OF VIOLATION #		

MO 780-2178 (04-13)

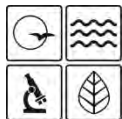
LEVEL II STATE SOURCE INSPECTION FORM

Date/time/county	Enter date/time inspection took place. Choose name of county in which source is located from drop box.
New information	Check only boxes for the lines that include information changed from last inspection. Enter requested information. Use source information from appropriate databases.
Type of operation	Enter activity or products.
Type of operating permit	Enter one: BAS – Basic, INT – Intermediate, P70 – Part 70, UNK – Unknown, NOP – No operating permit, or NOP-demPAL – Synthetic de minimus.
Weather conditions	Enter requested information.
Source codes	
County/plant	Choose the three-digit FIPS county code from the drop box and add the four-digit plant code.
Classification	Check the appropriate databases for classification and choose from drop box. Provide documentation if classification has changed. General description of classes: A-1 – Stationary source with Potential to Emit, or PTE, ≥ 100 tons per year, or TPY, of any regulated air pollutant with federally enforceable restrictions considered. A-2 – Stationary source with PTE ≥ 100 TPY of any regulated air pollutant when uncontrolled, but PTE < 100 TPY with federally enforceable restrictions considered; excludes A-3s. A-3 – Not class A-1 and has PTE ≥ 10 TPY of any Hazardous Air Pollutant, or HAP, or ≥ 25 TPY of any combination of HAPs. HAPs are defined by Section 112 of the Clean Air Act. B – Potential uncontrolled emissions $>$ de minimus but not class A. D – De minimus is defined by 10 CSR 10-6.020 E – Not classified; data has been submitted. UNK – Not classified; no emissions inventory questionnaire has been submitted.
Non-attainment	Check if source is located in non-attainment area.
Action date	Record date of inspection in requested format.
Result codes	Use result codes to record compliance status: 04 – in compliance, 05 – not in compliance, 06 – not operating at time of inspection, or MU – unknown.
SIP	Record compliance status with respect to rule in the State Implementation Plan, or SIP. In general, all Chapter 2 – 5 rules that are checked during inspections are in the SIP; EPA SIP approval may be pending on some rules applicable in active nonattainment areas. Chapter 6 MACT, NSPS, NESHAP, and asbestos rules are not in the SIP. For complete information on federally approved rules, check Region 7's website at: http://www3.epa.gov/region07/air/rules-w3/missouri/toc.htm
OP	Record compliance status with respect to the operating permit. Status includes submission of required documents, compliance with monitoring and record keeping requirements, and all state regulations.
NSPS/MACT/NESHAP	Record compliance status and applicable subpart or each regulation. Do not include subparts that MoDNR has not accepted enforcement delegation. Use comment section to give details of noncompliance.
Comments	Record pertinent details, conditions, notes on compliance, and activities related to RSMo. 640.035 (activities above and beyond minimum compliance). Check confidential status for companies that request confidentiality for specific information. Do not record confidential information on inspection forms.
Closing information	Complete requested information.



STATE SOURCE INSPECTION: EMISSION POINT LOG

SOURCE NAME			COUNTY CODE	PLANT CODE	DATE OF INSPECTION				
Blue River Wastewater Treatment Plant			095	0039	July 11, 2023				
EMISSION POINT			CONTROL DEVICE			OPACITY (%)	COMPLIANCE		COMMENTS
I.D. #	DESCRIPTION	PROCESS	I.D. #	TYPE	OPERATING PARAMETERS		STATUS	METHOD	
EP-001	Stack	Sludge incinerator 76.4 MMBtu/hr							Removed from property.
EP-003	Stack	Sludge digester flare					04		Current flare to be replaced with a new flare within a two year time frame. There are plans to construct a biogas plant where the product can be injected straight into the Spire pipeline.
EP-113	Stack	2016 Digester gas boiler #1 SN#FB625-30W-45 6.3 MMBtu/hr,					04		
EP-114	Stack	2016 Digester gas boiler #2 SN#FB625-30W-44 6.3 MMBtu/hr,					04		
EP-116	Stack	Cummins Emergency Gen Set 350 KW-Natural Gas Model No. 35OGFEB Serial No. M13A037962 2013 Build Date ===== Engine No. 37256090 Family CCEXB19.OENA Model KTA19G Date of Mfg. 12/12 HP/kW 530/395					06		Run Hours = 112.8
EP-119	Stack	2016 Odor control system boiler Lochinvar, LLC Model # FBN1501 Serial # 1703104558690 1.5 MMBtu/hr, natural gas					06		This boiler is not in use at this time. Facility is unsure how unit will be utilized in the future.



STATE SOURCE INSPECTION: EMISSION POINT LOG

EMISSION POINT LOG GUIDANCE AND EXAMPLES

Source name Record source name as it appears on Source Inspection Form.

County code Record three-digit FIPS code.

Plant code Record four-digit plant identification number.

Date of inspection Record inspection date.

Emission point

I.D. # Ideally these numbers match the emission point numbers on the source Emission Inventory Questionnaire, or EIQ.

Description Examples: stack, storage pile, tailings pile, haul road, fuel tank, truck unloading, water heater.

Process Examples: crushing, loading, storage, heating, drying, hauling, enclosure.

Control Device

I.D. # These numbers should match the control device numbers on the source Emission Inventory Questionnaire, or EIQ.

Type Examples: baghouse, cyclone, electrostatic precipitator, watering.

Operating Parameters Examples: pressure drop, feed rates, temperature, process rate, water flow rate, water pressure.

Opacity Record opacity if applicable.

Compliance

Status Use results codes to indicate compliance status of each emission point:
04 – in compliance, **05** – not in compliance, **MU** – unknown, **06** – not operating at time of inspection.

Method Indicate method of determining compliance. Examples: Method 9, calculations, visual check, records check.

Comments Enter relevant information not already recorded.

Attachment # 3 - Photos
Blue River WWTP
August 28, 2023
Page 1



Photo #: 1
Taken By: Christina Kerr
Entity: Blue River WWTP
Permit: 095-0039
Location: 7300 Hawthorne Road, Kansas City
Description: Facility overview from the north.
Date Taken: July 25, 2023
Media: KCRO Air Unit



Photo #: 2
Taken By: Christina Kerr
Entity: Blue River WWTP
Permit: 095-0039
Location: 7300 Hawthorne Road, Kansas City
Description: Area of Thermal Hydrolysis Process construction.
Date Taken: July 25, 2023
Media: KCRO Air Unit



Photo #: 3
Taken By: Christina Kerr
Entity: Blue River WWTP
Permit: 095-0039
Location: 7300 Hawthorne Road, Kansas City
Description: View of facility entrance with new construction taking place next to existing building.
Date Taken: July 25, 2023
Media: KCRO Air Unit

Attachment # 3 - Photos
Blue River WWTP
August 28, 2023
Page 2



Photo #: 4
Taken By: Christina Kerr
Entity: Blue River WWTP
Permit: 095-0039
Location: 7300 Hawthorne Road, Kansas City
Description: 2016 Digester gas boiler 6.3
MMBtu/hr.
Date Taken: July 25, 2023
Media: KCRO Air Unit



Photo #: 5
Taken By: Christina Kerr
Entity: Blue River WWTP
Permit: 095-0039
Location: 7300 Hawthorne Road, Kansas City
Description: 2016 Digester gas boiler 6.3
MMBtu/hr.
Date Taken: July 25, 2023
Media: KCRO Air Unit



Photo #: 6
Taken By: Christina Kerr
Entity: Blue River WWTP
Permit: 095-0039
Location: 7300 Hawthorne Road, Kansas City
Description: Sludge Digester Flare
Date Taken: July 25, 2023
Media: KCRO Air Unit

Attachment # 3 - Photos
Blue River WWTP
August 28, 2023
Page 3

	Photo #: 7 Taken By: Christina Kerr Entity: Blue River WWTP Permit: 095-0039 Location: 7300 Hawthorne Road, Kansas City Description: A 2016 natural gas Lochinvar, LLC, “odor control” system boiler that is 1.5 MMBtu/hr. Date Taken: July 25, 2023 Media: KCRO Air Unit
	Photo #: 8 Taken By: Christina Kerr Entity: Blue River WWTP Permit: 095-0039 Location: 7300 Hawthorne Road, Kansas City Description: Disconnected odor control equipment. Date Taken: July 25, 2023 Media: KCRO Air Unit
	Photo #: 9 Taken By: Christina Kerr Entity: Blue River WWTP Permit: 095-0039 Location: 7300 Hawthorne Road, Kansas City Description: 2013 Cummins Emergency Generator, model # 350GFEB which is natural gas fueled. Date Taken: July 25, 2023 Media: KCRO Air Unit



Missouri Department of dnr.mo.gov
NATURAL RESOURCES

Michael L. Parson, Governor

Dru Buntin, Director

October 8, 2021

Sent via email

Carey Robinson, Operations Utility Superintendent
KC Water, Blue River WWTP
7300 Hawthorne Road
Kansas City, MO 64120-2309

FINDING OF COMPLIANCE

Dear Carey Robinson:

Staff from the Missouri Department of Natural Resources (Department) conducted an inspection on September 14, 2021, of Blue River Wastewater Treatment Plant located at 7300 Hawthorne Road, Kansas City, in Jackson County.

Compliance with the Clean Air Act (CAA) and Missouri Air Conservation Law was evaluated. The entity was found to be **in compliance** based upon the observations made at the time of the evaluation.

The enclosed report describes the findings and may provide important recommendations to ensure continued compliance. Your cooperation in implementing those recommendations will be appreciated.

Fact sheets are available on the Department's website to assist entities with understanding and following environmental requirements.

If you have any questions, or would like to schedule a time to meet with Department staff to discuss compliance requirements, please contact Daniel Simmons at 816-251-0745 in the Kansas City Regional Office, 500 Northeast Colbern Road, Lee's Summit, Missouri 64086, or by email at daniel.simmons@dnr.mo.gov.

Sincerely,

KANSAS CITY REGIONAL OFFICE

Michael A. Cunningham, Jr.
Environmental Unit Chief
Air Pollution Control Unit

MAC/dsvj

- Attachment 1: Level II State Source Inspection Form
- Attachment 2: State Source Inspection: Emission Point Log
- Attachment 3: Photographs 1 to 3
- Attachment 4: Aerial Map

c: Richard Swartz, Air Pollution Control Program, sent via exchange drive
Sherri Irving, KC Water, via email
Ian Hayes, Kansas City Air Quality Program, via email

M:\APC\Jackson\Blue River WWTP\0950039\210914_NEW_INS



MISSOURI DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
AIR POLLUTION CONTROL PROGRAM
LEVEL II STATE SOURCE INSPECTION FORM

DATE AND TIME OF INSPECTION Tuesday, September 14, 2021, at 10:00 AM		COUNTY JACKSON				
NEW INFO ☐	SOURCE NAME Blue River Wastewater Treatment Plant		TELEPHONE NUMBER WITH AREA CODE 816-513-7200			
NEW INFO ☐	SOURCE LOCATION/CITY/ZIP CODE 7300 Hawthorne Road / Kansas City, MO / 64120		FAX NUMBER WITH AREA CODE 816-513-7271			
NEW INFO ☐	SOURCE REPRESENTATIVE AND TITLE Carey Robinson, Operations Utility Superintendent Sherri Irving, Regulatory Compliance Division Manager		EMAIL ADDRESS carey.robinson@kcmo.org sherri.irving@kcmo.org			
NEW INFO ☐	MAILING ADDRESS/CITY/ZIP CODE 7300 Hawthorne Road / Kansas City, MO / 64120					
TYPE OF OPERATION Wastewater Treatment Plant			TYPE OF OPERATING PERMIT P70			
SKY CONDITION Sunny	WIND DIRECTION AND SPEED S @ 6 mph	RELATIVE HUMIDITY 63%	TEMPERATURE 85 °F			
SOURCE CODES						
COUNTY 095	PLANT 0039	CLASSIFICATION A-1	NON-ATTAINMENT ☐			
ACTION DATE (YY/MM/DD) 21/09/14						
RESULT CODES						
	NSPS (2 Digits) 40 CFR Part 60	SUBPART	NESHAP (2 Digits) 40 CFR Part 61	SUBPART	MACT (2 Digits) 40 CFR Part 63	SUBPART
SIP (2 Digits) 04	04	JJJJ (4J)	04	C		
	06	MMMM (4M)	04	E		
OP (2 Digits) 04						
COMMENTS						
NUMBER OF EMPLOYEES 85		HOURS OF OPERATION 24/7		LAST INSPECTION June 18, 2019		
INTRODUCTION The Blue River Wastewater Treatment Plant previously had three sludge incinerators; however, only one was operational since approximately 2005. The facility installed 3 biological odor control scrubbers in 2017 to assist in controlling odor from the facility. The remaining incinerator was shut down July 2020. Instead of incineration, the facility is in the process of building a thermal hydrolysis process (THP) system to handle the sludge. The new process is currently anticipated to be operational in approximately three years. Lime stabilization will be used to handle sludge in the interim. CONSTRUCTION PERMITS Construction Permit I-181 was issued for an odor control incinerator. The odor control incinerator is no longer in use. Construction Permit 510-C was issued on August 30, 2004, and superseded the previous Construction Permits 510, 510-A, and 510-B. The permit allowed three 450 KW generators powered by Waukesha engines. Special conditions applied exclusively to the generators. These generators were removed from the facility and sold in February of 2016. Construction Permit 591-C was issued on June 15, 1992, to modify two sludge incinerators and was amended on April 30, 2014. This permit superseded the previous Construction Permits 591, 591-A, and 591-B. Special conditions applied exclusively to the incinerators, which have been permanently shut down. Records demonstrating compliance with the conditions of this permit were reviewed and indicated compliance. These records must be maintained for at least five years after shutdown.						

Construction Permit 791 was issued on July 10, 1997, for the installation of a 5,000 gallon unleaded gasoline underground storage tank. This tank has been removed.

Construction Permit 1428 was issued on November 19, 2015, for the installation of one 350 KW natural gas emergency generator at 7601 Front Street. Special conditions of the permit include the following:

- Operate only during emergency situations and for short periods of maintenance and performance testing. Usage may not exceed 500 hour annually. **The generator is routinely operated for periods of 15 minutes to 1 hour monthly for maintenance purposes and is not operated for other purposes outside of emergency usage. Appears in compliance.**
- The generator shall be equipped with a non-resettable hour meter. **Appears in compliance.**

[This permit was issued by the Kansas City Health Department under Kansas City, Missouri, Code of Ordinance Chapter 8 – Air Quality, but not under state regulation 10 CSR 10-6.060, Construction Permits, because the requirements that the generator only be used in emergency situations and for no more than 500 hours annually exempt it under 10 CSR 10-6.061(3)(BB).]

Construction Permit 1458 was issued on April 7, 2017, to construct and operate two new boilers fueled by digester gas or natural gas. Special conditions of the permit include the following:

- Use of digester gas for the two boilers is limited to 5,256 hours in any consecutive 12-month period. **No digester gas has been used in these boilers since installation.**
- The digester gas shall be tested twice within the year following issuance of this permit. The sulfur content from tested digester gas shall be used in SO₂ calculations. **Boilers no longer have the ability to combust digester gas; this function has been permanently removed. Appears in compliance.**
- Only natural gas or digester gas shall be used in the two-digester boilers. **Appears in compliance.**

NEW SOURCE PERFORMANCE STANDARDS (NSPS)

Federal regulation **40 CFR Part 60, Subpart JJJJ (4J)**, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*, applies to the natural gas fired 350 KW emergency generator. Applicable requirements include the following:

- Comply with the emission standards in section 60.4233 of the subpart. Compliance with those standards may be achieved by the following:
 - o Purchase an engine certified according to the regulation. **The engine is certified. Appears in compliance.**
 - o Operate and maintain the engine according to the manufacturer's written instructions.
 - o Keep records of the engine manufacturer's data indicating compliance with the standards.
 - o Equip the engine with a non-resettable hour meter prior to engine start-up. **Appears to be in compliance.**
- In order to remain classified as an emergency engine, the engine shall not:
 - o Be used for peak shaving, to supply power to an electric grid, or to supply power to another entity.
 - o Operate more than 100 hours per year for maintenance checks and readiness testing recommended by federal, state, or local governments, the manufacturer, the vendor, or the insurance company associated with the engine.
 - o Operate more than 50 hours per year in non-emergency situations; however, these hours are counted toward the 100 hours provided for maintenance and testing.

Appears to be in compliance.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)

Federal regulation **40 CFR Part 61, Subpart C**, *National Emission Standard for Beryllium*, applied to the facility. This regulation established an emission limit for beryllium < 10 g per 24-hour period. **A performance test on the incinerator was conducted on December 18, 2019, and indicated compliance with this limit with a non-detect (<0.012 g/day) value.**

Federal regulation **40 CFR Part 61, Subpart E**, *National Emission Standard for Mercury*, applied to the facility. This regulation established an emission limit for mercury < 3.2 kg (7.1 lb) per 24-hour period. If emissions exceed 1.6 kg (3.5 lb) per 24-hour period, annual monitoring is required. Compliance may be shown by either performance testing or records of sludge sampling that would indicate levels of mercury below this threshold. **A performance test on the incinerator was conducted on December 18, 2019, and indicated compliance with this limit.**

MAXIMUM ACHIEVABLE / GENERALLY AVAILABLE CONTROL TECHNOLOGY (MACT/GACT)

Blue River Wastewater Treatment Plant is not subject to a MACT/GACT.

OPERATING PERMIT

Blue River Wastewater Treatment Plant was issued **Part 70 Operating Permit OP2011-026** on June 2, 2011. This permit was set to expire June 2, 2016. The permit renewal is currently undergoing technical review. The existing permit will remain in effect until the renewal is finalized. This permit incorporates the conditions of Blue River Wastewater Treatment Plant's construction permits and applicable federal subparts. Additional special conditions include the following:

- Conduct and document observations to determine compliance with the fugitive emissions regulation using the monitoring schedule outlined in the permit. **Records were reviewed. Appears in compliance.**
- Conduct and document Method 22 opacity readings on each emission unit using the monitoring schedule outlined in the permit. If emissions are observed, conduct Method 9 readings. **Records were reviewed. Appears in compliance.**
- **A combined Annual Compliance Certification (ACC) for 2020 and Semi-Annual Monitoring (SAM) report for the period of July – December 2020 was received January 26, 2021.**

10 CSR 10-6.191, Sewage Sludge Incinerators

This regulation applied to the active sewage sludge incinerator and incorporates by reference 40 CFR Part 60, Subpart MMMM, Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units. There are two increments the facility needed to meet: Increment 1 had a compliance date of May 30, 2014, and Increment 2 had a final compliance date of March 21, 2016. Applicable requirements include:

- For Increment 1, submit a final control plan within one year of the effective date of this rule, which was May 30, 2014. The control plan must be kept on site and contain:
 - A description of the devices for air pollution control and process changes that will be used to comply with the emission limits and standards and other requirements of this subpart.
 - The types of waste to be burned, if waste other than sewage sludge is burned in the unit.
 - The maximum design sewage sludge burning capacity.
 - If applicable, the petition for site-specific operating limits under §60.5175.

Records were reviewed; appears in compliance. The facility should maintain these records for at least five years after incinerator shutdown.

- Increment 2 requirements include, in part:
 - An SSI (sewage sludge incinerator) cannot be operated unless a fully trained and qualified SSI unit operator is accessible, either at the facility or can be at the facility within 1 hour.
 - Operator training and qualification must be obtained through a state-approved program or by completing the requirements listed in paragraphs (c)(1) through (c)(3) of §60.5130.
 - To maintain qualification, the operator must complete an annual review or a refresher course.

Records were reviewed. The last incinerator operator refresher training was conducted May 8, 2019.

- Meet the emission standards. These emissions standards must be verified by an initial performance test followed by annual performance testing (or reduced schedule per the regulation) or a continuous emissions monitoring system (CEMS). **Performance tests indicated exceedances of some of the emission standards. Deconstruction of the incinerator was part of the agreement reached between the facility and the Department to resolve this issue.**
- Submit a deviation report by August 1 of each calendar year for data collected during the first half of the calendar year and by February 1 of each calendar year for data collected during the second half of the calendar year. **The most recent deviation report, for the period of July 1, 2020, through December 31, 2020, was submitted on January 26, 2021.**

All records required by this regulation should be maintained for at least five years after incinerator shutdown.

10 CSR 10-6.260, Restriction of Emission of Sulfur Compounds, and 10 CSR 10-6.261, Control of Sulfur Dioxide Emissions

[10 CSR 10-6.260 was rescinded from the Missouri Code of State Regulations Rules on November 30, 2015, and replaced by 10 CSR 10-6.261; however, the provisions of 10 CSR 10-6.260 currently remain in the State Implementation Plan (SIP) and are federally enforceable. The provisions of 10 CSR 10-6.260 will expire and the

provisions of 10 CSR 10-6.261 will become federally enforceable once 10 CSR 10- 6.261 is incorporated into the federally approved SIP as a final EPA action.]

- These regulations apply to the portable pumps, portable compressors, portable emergency generators, and the stationary 350 KW emergency generator at the facility. The facility demonstrates compliance by only using pipeline grade natural gas and only accepting for delivery ultra-low sulfur distillate fuel oil (15 ppm or less) for use in these units. **Appears in compliance.**

EMISSIONS INVENTORY QUESTIONNAIRE (EIQ)

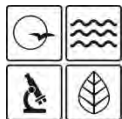
Blue River Wastewater Treatment Plant submitted its 2020 **EIQ** on April 27, 2021. The following emissions were reported in tons: SO_x=8.77, NO_x=2.69, VOC=5.54, CO=12.27.

☒	FACILITY IN COMPLIANCE	INSPECTOR SIGNATURE  Daniel Simmons	
☐	FACILITY NOT IN COMPLIANCE UNSATISFACTORY FINDINGS		
☐	FACILITY NOT IN COMPLIANCE LETTER OF WARNING	TITLE Environmental Specialist	OFFICE Kansas City Regional Office
☐	FACILITY NOT IN COMPLIANCE NOTICE OF EXCESS EMISSION #	FACILITY REPRESENTATIVE SIGNATURE/TITLE N/A	
☐	FACILITY NOT IN COMPLIANCE NOTICE OF VIOLATION #		

MO 780-2178 (04-13)

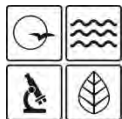
LEVEL II STATE SOURCE INSPECTION FORM

Date/time/county	Enter date/time inspection took place. Choose name of county in which source is located from drop box.
New information	Check only boxes for the lines that include information changed from last inspection. Enter requested information. Use source information from appropriate databases.
Type of operation	Enter activity or products.
Type of operating permit	Enter one: BAS – Basic, INT – Intermediate, P70 – Part 70, UNK – Unknown, NOP – No operating permit, or NOP-dem PAL – Synthetic de minimus.
Weather conditions	Enter requested information.
Source codes	
County/plant	Choose the three-digit FIPS county code from the drop box and add the four-digit plant code.
Classification	Check the appropriate databases for classification and choose from drop box. Provide documentation if classification has changed. General description of classes: A-1 – Stationary source with Potential to Emit, or PTE, ≥ 100 tons per year, or TPY, of any regulated air pollutant with federally enforceable restrictions considered. A-2 – Stationary source with PTE ≥ 100 TPY of any regulated air pollutant when uncontrolled, but PTE < 100 TPY with federally enforceable restrictions considered; excludes A-3s. A-3 – Not class A-1 and has PTE ≥ 10 TPY of any Hazardous Air Pollutant, or HAP, or ≥ 25 TPY of any combination of HAPs. HAPs are defined by Section 112 of the Clean Air Act. B – Potential uncontrolled emissions $>$ de minimus but not class A. D – De minimus is defined by 10 CSR 10-6.020 E – Not classified; data has been submitted. UNK – Not classified; no emissions inventory questionnaire has been submitted.
Non-attainment	Check if source is located in non-attainment area.
Action date	Record date of inspection in requested format.
Result codes	Use result codes to record compliance status: 04 – in compliance, 05 – not in compliance, 06 – not operating at time of inspection, or MU – unknown.
SIP	Record compliance status with respect to rule in the State Implementation Plan, or SIP. In general, all Chapter 2 – 5 rules that are checked during inspections are in the SIP; EPA SIP approval may be pending on some rules applicable in active nonattainment areas. Chapter 6 MACT, NSPS, NESHAP, and asbestos rules are not in the SIP. For complete information on federally approved rules, check Region 7's website at: http://www3.epa.gov/region07/air/rules-w3/missouri/toc.htm
OP	Record compliance status with respect to the operating permit. Status includes submission of required documents, compliance with monitoring and record keeping requirements, and all state regulations.
NSPS/MACT/NESHAP	Record compliance status and applicable subpart or each regulation. Do not include subparts that MoDNR has not accepted enforcement delegation. Use comment section to give details of noncompliance.
Comments	Record pertinent details, conditions, notes on compliance, and activities related to RSMo. 640.035 (activities above and beyond minimum compliance). Check confidential status for companies that request confidentiality for specific information. Do not record confidential information on inspection forms.
Closing information	Complete requested information.



STATE SOURCE INSPECTION: EMISSION POINT LOG

SOURCE NAME Blue River Wastewater Treatment Plant			COUNTY CODE 095		PLANT CODE 0039		DATE OF INSPECTION 09/14/2021		
EMISSION POINT			CONTROL DEVICE			OPACITY (%)	COMPLIANCE		COMMENTS
I.D. #	DESCRIPTION	PROCESS	I.D. #	TYPE	OPERATING PARAMETERS		STATUS	METHOD	
EP-001	Stack	Sludge incinerator 76.4 MMBtu/hr Multiple hearth	CD1	Scrubbers Afterburner			06	Visual	This is being dismantled
EP-003	Stack	Sludge digester flare					04	Visual	
EP-113	Stack	Digester gas boiler #1 6.3 MMBtu/hr, mfg 2016					04	Visual	
EP-114	Stack	Digester gas boiler #2 6.3 MMBtu/hr, mfg 2016					04	Visual	
EP-116	Stack	Emergency generator 350KW, natural gas					06	Visual	
EP-119	Stack	Odor control system boiler 1.5 MMBtu/hr, natural gas Mfg 2016					06	Visual	



STATE SOURCE INSPECTION: EMISSION POINT LOG

EMISSION POINT LOG GUIDANCE AND EXAMPLES

Source name Record source name as it appears on Source Inspection Form.

County code Record three-digit FIPS code.

Plant code Record four-digit plant identification number.

Date of inspection Record inspection date.

Emission point

I.D. # Ideally these numbers match the emission point numbers on the source Emission Inventory Questionnaire, or EIQ.

Description Examples: stack, storage pile, tailings pile, haul road, fuel tank, truck unloading, water heater.

Process Examples: crushing, loading, storage, heating, drying, hauling, enclosure.

Control Device

I.D. # These numbers should match the control device numbers on the source Emission Inventory Questionnaire, or EIQ.

Type Examples: baghouse, cyclone, electrostatic precipitator, watering.

Operating Parameters Examples: pressure drop, feed rates, temperature, process rate, water flow rate, water pressure.

Opacity Record opacity if applicable.

Compliance

Status Use results codes to indicate compliance status of each emission point:
04 – in compliance, **05** – not in compliance, **MU** – unknown, **06** – not operating at time of inspection.

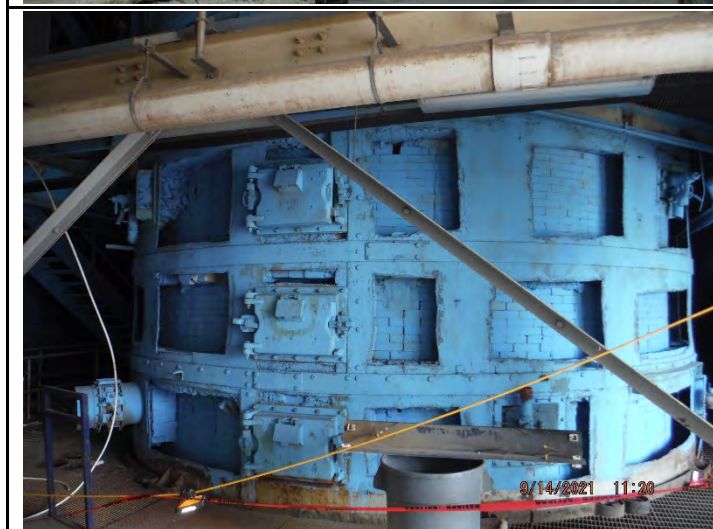
Method Indicate method of determining compliance. Examples: Method 9, calculations, visual check, records check.

Comments Enter relevant information not already recorded.

Attachment 3: Photographs
Blue River Wastewater Treatment Plant
Page 1 of 1



Photograph: 1
Taken By : Daniel Simmons
Date Taken: September 14, 2021
Program: KCRO, Air Pollution Control Unit
Entity: Blue River Wastewater Treatment Plant
Facility ID: 095-0039
Location: 7300 Hawthorne Rd, Kansas City
Description: Dismantled incinerator stack



Photograph: 2
Taken By: Daniel Simmons
Date Taken: September 14, 2021
Program: KCRO, Air Pollution Control Unit
Entity: Blue River Wastewater Treatment Plant
Facility ID: 095-0039
Location: 7300 Hawthorne Rd, Kansas City
Description: Sludge incinerator



Photograph: 3
Taken By: Daniel Simmons
Date Taken: September 14, 2021
Program: KCRO, Air Pollution Control Unit
Entity: Blue River Wastewater Treatment Plant
Facility ID: 095-0039
Location: 7300 Hawthorne Rd, Kansas City
Description: Odor control system

Attachment 4: Aerial Map
Blue River Wastewater Treatment Plant
Page 1 of 1

