

REPORT OF THE PRETREATMENT COMPLIANCE INSPECTION

AT

Little Blue Valley Sewer District

21208 E. Old Atherton Road

Independence, MO. 64508

NPDES Permit No.: MO-0101087

BY

U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION 7

ENFORCEMENT AND COMPLIANCE ASSURANCE DIVISION (ECAD)

WATER BRANCH/DRINKING WATER AND INSPECTIONS SECTION (WB/DWIS)

ON

August 7, 8 and 9, 2023

At the request of the Water Branch (WB), Enforcement and Compliance Assurance Division (ECAD), a pretreatment compliance inspection was conducted of the Little Blue Valley Sewer District's approved Pretreatment Program on August 7, 8, and 9, 2023. To direct the inspection, a checklist was used that evaluates all important elements of the Pretreatment Program. A copy of the checklist is attached to this report (Attachment 1). The inspection consisted of a discussion and file review with the City's program staff.

PARTICIPANTS

Little Blue Valley Sewer District/ Atherton Wastewater Treatment Plant

- Jimmy Coles, Environmental Manager/Pretreatment Coordinator

Missouri Department of Natural resources

- Brad Allen, Pretreatment Coordinator
- Lynn Nguyen, KCRO Wastewater Inspector

U.S. Environmental Protection Agency (EPA), Region 7

- Naji J. Ahmad, Environmental Engineer, ECAD/WB/DWIS

INTRODUCTION

The Little Blue Valley Sewer District (LBVSD) was created by the State of Missouri to collect and treat wastewater from the communities along the Little Blue River. It was incorporated in 1968 by a decree of the Circuit Court of Jackson County. The current total land area served by the district is approximately 278 square miles.

The geographic area of the LBVSD includes portions of Jackson and Cass Counties and the Cities of Belton, Blue Springs, Grandview, Independence, Kansas City, Lake Tapawingo, Lee's

Summit, Raymore, Raytown, and Sugar Creek, and the Fort Osage School District, and Middle Big Creek Subdistrict. In addition to one federal installation, Alliant Techsystems, Inc.-Lake City Army Ammunition Division.

Middle Big Creek is a separate geographic watershed area that was established as a Subdistrict of the LBVSD in 1992. The current customers of the Subdistrict include the communities of Greenwood, portions of Raymore and Lee's Summit, Lake Winnebago, unincorporated Cass County, and the Mullendike and Dikeland Sewer Districts.

The LBVSD owns and operates two Wastewater Treatment Plants (WWTP). The Atherton WWTP was constructed, and began operation in 1984, in eastern Independence, Missouri approximately 2 miles south of the Missouri River. The Atherton WWTP receives wastewater from the Little Blue River drainage basin that flows via series of gravity sewers ranging in size from 24 inch to 120 inch and discharges the treated wastewater to the Missouri River. The LBVSD operates the Atherton WWTP under the National Pollutant Discharge Elimination System (NPDES) permit number MO0101087 (Attachment 2) that expired on January 31, 2023. According to the NPDES permit, the Atherton WWTP has a design population equivalent of 400,000, design flow of 52 million gallons per day (mgd), actual flow of 42 mgd, and design sludge production of 8,135 dry tons/year.

The Middle Big Creek (MBC) WWTP is located in Pleasant Hill Missouri. The LBVSD operates the MBC WWTP under the NPDES permit number MO0058629 (Attachment 3) that will expire on March 31, 2026. According to the NPDES permit, the MBC WWTP has a design population equivalent of 22,500, design flow of 2.25 mgd, actual flow of 2.66 mgd, and design sludge production of 479 dry tons/year. Generated sludge is hauled to the Raintree pumping station where it's pumped to the LBVSD interceptor then it flows into the Atherton WWTP to be processed.

LEGAL AUTHORITY AND LOCAL LIMITS

The LBVSD Pretreatment Program was approved by the Missouri Department of Natural Resources (MDNR) on January 28, 1985, and on July 2, 1992, the MDNR approved the district's Industrial Pretreatment ordinance under Resolution 2259. The ordinance had, at a minimum, the required and necessary elements to administer and enforce a pretreatment program.

The current NPDES permits, pursuant to 40 CFR 122.44(j)(2)(ii), requires the district to submit a written technical evaluation of the need to revise its local limits under 40 CFR 403.5(c)(1) within 180 days of the effective date of the permit.

On May 2, 2023, the LBVSD submitted to MDNR (Attachment 4) a comprehensive program modification that included the EPA's Streamlining and Dental Amalgam Rules and includes updated forms and templates, staffing information, Local Limits review report, and revised Enforcement Response Plan (ERP).

On October 11, 2023, the MDNR approved, pursuant to §403.18 (adopted in 10 CSR 20-6.100), the LBVSD's Pretreatment Program Modification (Attachment 5) that incorporates requirements

of the U.S. Environmental Protection Agency's (EPA) Streamlining and Dental Amalgam Rules and includes updated forms and templates and Industrial Pretreatment Program staffing information. The revision removes the district's Local Limits table from the regulations and incorporates by reference standalone limit sets that have been included with this submission.

SIGNIFICANT INDUSTRIAL USERS (SIUs)

Records review indicated that the last formal Industrial Waste Survey (IWS) was conducted in 1992. Mr. Jimmy Coles indicated that he conducted a formal but partial survey in 2022 which included all dental offices within the district. He added, he reviews surveys conducted by cities within the district area and updates the list of regulated industries when necessary.

The district has seen limited industrial growth in the last several years and doesn't anticipate any changes in the foreseeable future. Currently, the LBVSD receives discharges from at least twelve Significant Industrial Users (SIUs) that make up about 10% of its actual (dry weather) influent. Six of the of the twelve regulated industries are subject to one or more Federal Categorical Standards.

In 2022, Advanced Coating was removed from the list of SIUs due to the removal of the Categorical process subject to 40 CFR 433 in 2021. The LBVSD terminated the industry's permit in May 2022. Lake City Army Ammunition Plant-Building 163 Pump & Treat System was issued a direct discharge permit by MDNR, the facility, however, continues to occasionally discharge to the LBVSD and remains permitted by the LBVSD.

PERMITS

The LBVSD previously issued industrial user permits with a three-year duration cycle. However, under the October 11, 2023, program modification, permits will now be issued with a five-year cycle.

In 2021, all industries submitted permit renewal applications 90 days prior to their permit expiration date as required. However, the LBVSD did not renew permits on time which resulted in six of the industries to operate under expired permits, but the permits were administratively continued. None of the permits were expired for more than 180 days. Overall, permits appeared to be adequate and include the necessary elements needed in an appropriate Overall, permits appeared to be adequate and include the necessary elements needed in an appropriate and enforceable control mechanism. Permits included duration, limits, recordkeeping, and require all industries to self-monitor and submit periodic monitoring reports. Permits clearly identify the sampling location and frequency for each industry. The district also issues permits to Zero-discharger SIUs.

INDUSTRIAL INSPECTIONS

All industries were inspected by the LBVSD in the past twelve months. Inspection reports are filed in the industry's file. Inspection reports appeared to be adequate and well documented.

Inspections are performed at least annually by the Pretreatment Coordinator using a checklist that is similar to the Region 7 Industrial User Inspection Checklist.

COMPLIANCE MONITORING, SELF-MONITORING, AND REPORTING

The LBVSD samples each industry for all regulated pollutants once per year. Industry self-monitoring frequencies are specified in the industrial user permits. Depending on the industry and Categorical standard, some are required to sample weekly, monthly, or even quarterly and the industry submits compliance monitoring reports monthly or once every six months, as directed in the permit.

The LBVSD allows categorical industries that are subject to the metal finishing standard of 40 CFR Part 433, to prepare and implement a toxic organic management plan (TOMP)/ Solvent Management Plan (SMP) in lieu of periodic monitoring of total toxic organics TTO. IFC is one of those industries that are subject to the Metal Finishing Categorical standard 40 CFR Part 433. The industry developed and is implementing a Solvent Management Plan and submits compliance monitoring reports certifying that they developed, and they are implementing a SMP as a demonstration of compliance with total toxic organics requirements. However, the industry continues to collect TTO samples semi-annually.

ENFORCEMENT

The LBVSD's ERP has been in place since July, 1992. As mentioned above, the LBVSD submitted program modification to the MDNR which included a revised ERP. The revised ERP was approved on October 11, 2023. Overall, Mr. Coles appeared to be familiar with the ERP and the EPA's significant noncompliance definition.

Records indicate that there was one SIU in Significant Noncompliance (SNC) in the second half of 2022 due to local limit violation. The LBVSD issued a notice of violation and published the industry's non-compliance in April 2023.

DATA MANAGEMENT

During my file review, I observed that the industrial files have the necessary documentation as recommended by the agency checklist. Files consisted of permits, most recent inspection reports, compliance monitoring reports, and self-monitoring reports.

SLUDGE QUALITY

One function of the Pretreatment Program is to protect the LBVSD's sludge from metals contamination. As part of this inspection, the District's 2022 biosolids data was reviewed to determine the Pretreatment Program's effectiveness. As mentioned above, according to the Atherton WWTP NPDES permit, the WWTP is an activated sludge system with a design sludge production of 8,135 dry tons per year (incinerated, landfilled, or land applied after lime stabilization). The WWTP consists of influent pump station, screening, peak flow clarifier, four primary clarifiers, two serration basins with anoxic selector zones, five final clarifiers, ultraviolet disinfection, belt filter sludge press, centrifuge sludge dewatering, incinerator, and ash holding

basin. Wastewater from the MBC WWTP is pumped to the Atherton WWTP for a complete treatment process.

The primary method of sludge disposal is by incineration. However, due to annual routine maintenance shutdown of the incinerator, the district uses alternative means of sludge disposal such as land application or landfilled.

In 2022, the LBVSD generated 8,200 dry tons of Class B sludge. During the annual incinerator maintenance shutdown in October and November, Synagro hauled 1,799.43 wet tons of lime stabilized sludge to fields for application. But due to wet and/or freezing weather in December, only 224.27 wet tons (55.01 dry tons with average percent solids of 24.53%) of that amount was spread by the end of the calendar year. 1,575.16 wet tons remained stockpiled in fields going into 2023.

Because the LBVSD sampled its sludge once per quarter, the monthly average is the maximum value observed. Below is the table that compares the peak observed metals levels for 2022 against the statutory ceiling and the average levels against the exceptional quality (EQ) sludge levels specified by the 40 C.F.R. Part 503 sludge regulations.

Table 1, LBVSD 2022 Sludge Quality (mg/kg)

Pollutant	503 Ceiling	503 EQ	Max	Mo. Avg.	Max/Ceiling	Avg./EQ
Arsenic, As	75	41	3.9	3.9	5.20%	9.51%
Cadmium, Cd	85	39	2	2	2.35%	5.13%
Copper, Cu	4300	1500	229	229	5.33%	15.27%
Lead, Pb	840	300	31.3	31.3	3.73%	10.43%
Mercury, Hg	57	17	0.552	0.552	0.97%	3.25%
Molybdenum, Mo	75	----	11.7	11.7	15.60%	
Nickel, Ni	420	420	11.9	11.9	2.83%	2.83%
Selenium, Se	100	36	7.8	7.8	7.80%	21.67%
Zinc, Zn	7500	2800	586	586	7.81%	20.93%

The table shows that LBVSD's sludge is well below both the ceiling level and EQ level for all metals.

CONCLUSION AND RECOMENDATION

1. Overall, the LBVSD continues to implement its Approved Program and continues to improve it.
2. Mr. Jimmy Coles, has a good and full understating of the general Pretreatment regulations, Categorical standards, and the Enforcement Response Plan.
3. The LBVSD should consider conducting a formal Industrial Waste Survey (IWS) to ensure that all industrial and commercial contributors are accounted for. All IWSs should be documented and filed.
4. The LBVSD should ensure it is issuing all industrial permits in a timely manner.

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Naji J. Ahmad
Environmental Engineer WB/DWIS

Jodi Bruno
Chief, Water Branch

ATTACHMENTS

1. PCI Checklist
2. Atherton NPDES permit.
3. BMC NPDES permit.
4. Program modification proposal.
5. Approved Program modification.
6. 2022 Sludge report