

## INSPECTION REPORT

<b>Inspection Date(s):</b>	02/15/2022 - 02/16/2022	Announced: No
<b>Time:</b>	Entry: 07:56 AM (ET)	Exit: 02:45 PM (ET)
<b>Media:</b>	Water	
<b>Statute(s)/Program(s):</b>	Clean Water Act, NPDES, Industrial	
<b>Type of inspection:</b>	CEI - Compliance Evaluation Inspection	
<b>Access:</b>	Granted	
<b>Permittee Name:</b> Gavin Power LLC		
<b>Facility or Site Name:</b> General James M. Gavin Power Plant		
<b>Facility/Site Physical Address:</b> 7397 North State Route 7		
<b>(City, state, zip code)</b> Cheshire, Ohio45620		
<b>County/Parish:</b> Gallia		
<b>Facility GPS Coordinates:</b> 38.936219, -82.114259		
<b>Facility/Site Identifier:</b> Gavin		
<b>Permit Number:</b> OH0028762		
<b>SIC or NAICS:</b> 4911		

**Persons Participating in Inspection:**

Title	Name	Phone	Email	Present at Opening Conf.	Present at Closing Conf.
Lead inspector	Andi Hodaj	3123534645	hodaj.andi@epa.gov	Yes	Yes
Inspector	Jake Berger	(312) 353-8024	berger.jake@epa.gov	Yes	Yes
Environmental Processor	Taylor Huffman	(740) 925-3171	taylor.huffman@lightstonegen.com	Yes	No
Technical Services Manager	Phil Bailey	(740) 925-3126	phillip.bailey@lightstonegen.com	Yes	No
Plant Manager	Nick Tipple	(740) 925-3100	nicholas.tipple@lightstonegen.com	No	Yes

**Lead inspector:**

Andi Hodaj	ANDI HODAJ <small>Digitally signed by ANDI HODAJ Date: 2022.04.05 14:09:04 +05'00'</small>		
	Region 5	hodaj.andi@epa.gov	(312) 353-4645

**Supervisor Review:**

Molly Smith	MOLLY SMITH <small>Digitally signed by MOLLY SMITH Date: 2022.04.05 16:35:31 -05'00'</small>		
	Region 5	smith.molly@epa.gov	

**SECTION I – INTRODUCTION****Site Entry and Inspection Objectives**

Region 5 Lead inspector, Andi Hodaj, arrived at the Gavin Power Plant (the “Site” or “Facility”), located at 7397 N. State Route 7, Cheshire, Ohio, at 07:56 AM (ET) on 02/15/2022 for an unannounced inspection. Region 5 Lead inspector presented his credentials to Taylor Huffman and informed the facility that this was an inspection to determine compliance with the Clean Water Act (CWA) and the National Pollutant Discharge Elimination System (NPDES) permit program. The inspection was conducted by the Region 5 NPDES permit enforcement program, under the authority of Section 308 of the CWA. The table above identifies the attendees that participated in the inspection. This report is based on information supplied by Facility representatives, observations made by Region 5 inspectors during the inspection, and records and reports maintained by the permittee and Region 5. The records and reports include: direct observations made by the Region 5 inspectors, photographs taken by Region 5 inspectors, physical evidence collected by the Region 5 inspectors, measurements taken by Region 5 inspectors, verbal or written statements made by information supplied by Facility representatives (the permittee) during or subsequent to the on-site inspection, and materials, processes, data, photographs, or documents shown, demonstrated, or submitted to the Region 5 inspectors by Facility representatives during or subsequent to the on-site inspection. In addition, information gathered prior to or subsequent to the inspection from a review of Region 5 inspectors, the State, and public records may be included in this report.

**Facility/Site Description**

Region 5 lead inspector confirmed the following Facility information:

The General James M. Gavin Power Plant or, Gavin Power Plant (the “Site” or “Facility”), is a coal-fired power plant located in Cheshire, Ohio. It is owned by Lightstone Generation LLC, a 50–50 joint venture of The Blackstone Group L.P. and ArcLight Capital Partners. The Site is the largest coal-fired power facility in Ohio, and one of the largest in the United States. The Facility operates two coal-fired units. The total generation capacity of the two units is 1,300 megawatts each, for a total of 2,600 megawatts (net). The two units were placed into service in 1974 and 1975. The Facility operates under NPDES Permit Number OH0028762, which regulates discharges from 14 outfalls into the Ohio River, Turkey Run, Stingy Run and Kyger Creek. Turkey Run, Stingy Run and Kyger Creek flow east into the Ohio River.

Coal mainly arrives at the Facility through barges in the Ohio River, where it is scooped out and conveyed via conveyor belts to the plant’s storage yard area. The coal is either stored in the coal storage yard area or, used directly at one of the two power generation units after going through a pulverizer. Along with coal, limestone or lime powder is also transported to the Facility via conveyor belts from barges in the Ohio River. Limestone is used in the flue gas desulfurization (FGD) process.

The plant uses water from the Ohio River for most of its operations, with an average daily withdrawal of 43 million gallons per day. Approximately 28 million gallons per day is used for non-contact cooling at the two cooling towers. There are several wastestreams generated by the Facility that include: bottom ash transport water, cooling tower blowdown, pyrite sluice, turbine room sump, overflow sump, pretreatment sump, fly ash transfer sump, coal pile runoff, urea mixing skid sump and dust collection sump. All of these waste streams are routed to the Bottom Ash Pond for gravitational settling of solids. The Bottom Ash Pond discharges into the Ohio River through Outfall 006. As part of the process, the Facility generates fly ash and bottom ash, which are both byproducts of the coal-burning process. Bottom ash is sluiced to the bottom ash pond, while fly ash is hauled to the FGD landfill located approximately a mile northwest of the Facility.

The Facility operates two wastewater treatment plants. One for domestic sanitary sewage that is generated onsite (0.01 MGD average daily flow) and one that receives wastewater from the purge stream from the FGD scrubbers. The FGD treatment process consists of two thickener settling tanks and a clarified recycle water tank. However, the Facility operates as a Limestone Natural/Inhibited Oxidation System and as a closed loop system with no FGD wastewater purge stream. The final waste, which consists of sludge from the FGD treatment, lime and fly ash, is sent by a conveyor to the FGD landfill.

The landfill area is approximately one square mile, including the stackout pad area and four ponds that collect and treat landfill leachate and stormwater runoff. The stackout pad area is where slurry/sludge from the Facility is first deposited and dried, before hauled to the landfill. The capped fly ash pond is northeast and next to the landfill area. This area includes a pond that collects stormwater runoff from the capped fly ash pond before discharging into Stingy Run via Outfall 001.

### Facility/Site Information

<b>Industrial Sector/Sub-sector</b>	SIC: 4911
<b>Responsible official verified</b>	Nicholas Tipple
<b>What is the principal product generated?</b>	Electricity
<b>Type of Operation</b>	Coal Power Plant
<b>What are the raw materials used?</b>	Coal, limestone
<b>Size of Facility</b>	3 square miles
<b>Outfalls (and do the numbers and locations match the permit?)</b>	14, outfalls match the NPDES permit
<b>Do you self-monitor and keep monitoring records?</b>	Yes, the facility provides discharge monitoring reports
<b>Do you use in-house or contract out for laboratory analyses? Or both?</b>	Both
<b>Have there been or are there plans to make changes in the process(es) that will cause a new, different, or increased discharge?</b>	Yes. The Facility stated it is planning on closing its Bottom Ash Pond and rerouting some of its wastestreams in response to EPA's 2015 Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities, 80 FR 21301 (the "CCR Rule"). At the time of the inspection plans had not been finalized.

Unit(s)

Unit/Area/Sub-area	Description
Coal loading and transfer area	The coal loading and transfer area is located with the Ohio River to the east and State Route 7 to the west and includes two coal loading docks, conveyors and coal transfer stations. The area also includes NPDES permitted Outfalls 002, 005 and 006.
Coal yard area	The coal yard area is approximately 40 acres and includes the coal storage area, two electrical switchyards, parking lots, a tractor shed and the coal treatment facility.
Landfill	The landfill is located approximately one mile northwest of the main plant and includes the stackout pad, the landfill and several leachate and stormwater treatment ponds.
Lime loading area/Outfall 003	The lime loading area is located east of State Route 7, on the banks of the Ohio River. It consists of a loading dock, two pneumatic unloaders, the conveyor system and two machinery buildings. This area includes Outfall 003, that is located approximately 700 feet north of the lime loading dock.
Main plant area	The main plant area is identified as the area between State Route 7 and the rail tracks to the west. It includes the two power generating units, cooling towers, FGD treatment system and multiple catch basins that drain stormwater to the Ohio River via Outfalls 003, 004 and 005.

## SECTION II – OBSERVATIONS

Observations may not be in sequential order.

<b>Unit:</b> Coal loading and transfer area/Gavin Power Plant	<b>Contains CBI:</b> No
<b>Observation #:</b> AH2-OB-007	<b>Date:</b> 03/02/2022
<p>Stormwater catch basins that collect runoff from the area between the coal yard and the railroad, east of the coal yard, discharge into field ditches that eventually flow into Kyger Creek. These discharges are not permitted. In a February 28, 2022, inspection follow-up email, the Facility stated that "Gavin is evaluating the permit requirements for discharges from the two stormwater systems and will prepare a permit application to permit for these discharges in the NPDES permit OR will reroute the stormwater to the already permitted ponds."</p>	
<b>Photo(s)</b>	
1. <a href="#">RIMG2432.JPG</a>	
<b>Unit:</b> Coal loading and transfer area/Gavin Power Plant	<b>Contains CBI:</b> No
<b>Observation #:</b> AH2-OB-006	<b>Date:</b> 03/02/2022
<p>East of and near the coal pile area, EPA observed a tank that contains calcium bromide. As stated by the facility, the Calcium Bromide is used to treat the coal for mercury reduction in the FGD process. The sump pit, used as the secondary containment for the tank, was full of water at the time of the inspection. Overflowing water from this pit can reach the Ohio River through the stormwater catch basins. The Facility could not confirm at the time of the inspection where and how the sump pit was being managed. EPA identified an outlet, or further storage area, inside the concrete pit that the Facility did not know where it led. In a February 28, 2022, follow-up email,</p>	

the Facility stated that "Gavin had discussions with Gallia Fuels, who is responsible for the coal treatment facility, the calcium bromide tank, sump, and associated containment, regarding the necessary inspections and requirements to keep the secondary containment clean and empty. Gallia Fuels inspects the water prior to discharge for sheen or other contaminants and then pumps to the coal ponds."

**Photo(s)**

1. [RIMG2431.JPG](#)

**Unit:** Coal loading and transfer area/Gavin Power Plant      **Contains CBI:** No

**Observation #:** AH2-OB-002

**Date:** 02/15/2022

On February 15, 2022, EPA observed a pipe that was discharging into the Ohio River. The discharge was not permitted. The pipe was an approximately 18" metal corrugated pipe that was not shown in any of the Facility's maps. At the time of the inspection, the Facility claimed that it was not aware of the pipe's existence. The pipe was discharging runoff from the lower areas of the north and south coal conveying transfer stations. The coal conveying transfer stations transport coal from barges in Ohio River to the coal yard or directly to the power generating units at the Facility. The coal conveying transfer stations have sump pits that collect stormwater. This stormwater comes into contact with coal and coal dust. Two of these sump pits were overflowing into a catch basin that eventually discharged into the Ohio River through the 18" metal pipe, mentioned above. The catch basin received runoff from the wider area east of the transfer stations where coal dust was present. During the inspection, EPA observed runoff, through several gullies, that was discharging into the catch basin.

Approximately 700 feet from the discharging 18" metal pipe, EPA observed another pipe on the banks of the Ohio River. This pipe, smaller in diameter than the previous one, was connecting a catchment area at the south end of the Facility's property. The pipe was not discharging at the time of the inspection. The pipe was not shown in any of the Facility's plans/maps and during the inspection the Facility claimed that it was not aware of this pipe's existence.

On February 28, 2022, Gavin sent a follow-up email and letter that stated " On February 15, 2022, Gavin began repair and clean-up of the sumps. Clean-up of the coal yard at the barge unloaders began on February 21, 2022, and will be completed over the next two to three weeks. Gavin is evaluating removal of the piping and culvert that drains stormwater in contact with coal to the river or permitting the discharge."

**Photo(s)**

1. [RIMG2399.JPG](#)
2. [RIMG2400.JPG](#)
3. [RIMG2401.JPG](#)
4. [RIMG2402.JPG](#)
5. [RIMG2403.JPG](#)
6. [RIMG2404.JPG](#)
7. [RIMG2406.JPG](#)
8. [RIMG2407.JPG](#)
9. [RIMG2408.JPG](#)
10. [RIMG2409.JPG](#)
11. [RIMG2411.JPG](#)
12. [RIMG2413.JPG](#)
13. [RIMG2414.JPG](#)
14. [RIMG2415.JPG](#)
15. [RIMG2417.JPG](#)

**Unit:** Coal loading and transfer area/Gavin Power Plant      **Contains CBI:** No

**Observation #:** AH2-OB-001      **Date:** 02/15/2022

There are two coal loading docks at the Facility where coal is scooped out of the barges in the Ohio River and is placed on the conveyor belts to be transported around the Facility. At the time of the inspection, the coal loading docks had significant amounts of coal and coal dust on them. These docks are located at a height above the Ohio River. The docks have a metal frame around the edge that, according to the Facility, are to contain material from falling into the Ohio River. At the time of the inspection, on both docks part of this metal frame was missing and the Facility had placed absorbent booms. However, during the inspection, coal dust and particles could be seen passed these absorbent booms.

**Photo(s)**

1. [RIMG2394.JPG](#)
2. [RIMG2395.JPG](#)

**Unit:** Landfill/Gavin Power Plant      **Contains CBI:** No

**Observation #:** AH2-OB-008      **Date:** 03/02/2022

At the time of the inspection, EPA observed a discharge into Turkey Run at the landfill area. The discharge was of significant volume and resulted from an underground, broken pipe that was part of the piping system conveying Ohio River water to the landfill for dust suppression activities. The Facility could not tell when the discharge began. In a February 28, 2022, follow-up email, the Facility stated that it had installed a shut-off valve to stop the discharge and was evaluating plans for repairs of the underground pipe.

**Photo(s)**

1. [RIMG2444.JPG](#)
2. [RIMG2445.JPG](#)
3. [RIMG2446.JPG](#)
4. [RIMG2447.JPG](#)
5. [RIMG2448.JPG](#)

**Unit:** Lime loading area/Outfall 003/Gavin Power Plant      **Contains CBI:** No

**Observation #:** AH2-OB-004      **Date:** 03/02/2022

During the inspection, EPA observed three containers with a dust suppressing material for the limestone dust generated from the lime transport procession, which occurs from the Ohio River to the Facility. This dust suppression material was stored in an area next to the lime transfer dock and by the Ohio River. The name of the chemical is DUSTNOT SYN, a synthetic liquid that is sprayed on the roads for dust suppression instead of water. During the inspection, the containers were not in secondary containment.

**Photo(s)**

1. [RIMG2380.JPG](#)
2. [RIMG2381.JPG](#)

**Unit:** Lime loading area/Outfall 003/Gavin Power Plant      **Contains CBI:** No

**Observation #:** AH2-OB-003      **Date:** 02/15/2022

NPDES permitted Outfall 003 collects stormwater runoff from the northern part of the main plant and discharges into Ohio River. According to the Facility, Outfall 003 also discharges sanitary sewage from the Village of Cheshire. The Village of Cheshire's sanitary water enters the Facility's stormwater sewer before discharging through Outfall 003. This sanitary sewer waste is untreated.

**Photo(s)**

1. [RIMG2376.JPG](#)
2. [RIMG2375.JPG](#)
3. [RIMG2377.JPG](#)

**Unit:** Main plant area/Gavin Power Plant      **Contains CBI:** No

**Observation #:** AH2-OB-005      **Date:** 02/15/2022

Throughout the inspection, EPA observed multiple catch basins around the main plant area that captured stormwater runoff and conveyed it to the Ohio River through Outfalls 003, 004 and 005. EPA also observed sediment and coal ash around and within these catch basins. According to the Facility, stormwater from these catch basins is not treated prior to discharge into the Ohio River. At the time of the inspection the Facility had placed hay bales around some of the catch basins to prevent material from going into them; however some did not have any hay bales and others had hay bales moved to the side. The Facility had placed signage next to a few of these catch basins, indicating that these basins drain into the Ohio River to raise awareness among the employees. In a February 28, 2022, follow-up email, the Facility stated that it had contacted a third-party to clean the catch basins and install more protective measures.

**Photo(s)**

1. [RIMG2426.JPG](#)
2. [RIMG2427.JPG](#)

**SECTION III – RECORDS REVIEW**

Records may not be in sequential order.

<b>Record:</b> Other - Stormwater Pollution Prevention Plan	<b>AOC:</b> Yes
<b>Ref #:</b> AH2-RR-011	<b>Reviewed By:</b> Andi Hodaj
<b>Reviewed Date:</b> 03/10/2022	
EPA reviewed the Stormwater Pollution Prevention Plan (SWPPP) that the Facility sent to EPA on February 17, 2022. The SWPPP was not signed and dated according with the requirements of Part IV.H.1. of the NPDES permit.	
<b>Record:</b> Process Description/Flow Diagram	<b>AOC:</b> Yes
<b>Ref #:</b> AH2-RR-010	<b>Reviewed By:</b> Andi Hodaj
<b>Reviewed Date:</b> 03/02/2022	
Gavin provided EPA with a flow diagram of the Facility that showed outfalls and daily flows on February 18, 2022. Outfalls for stormwater collected from the coal pile area were not shown in the flow diagram.	
<b>Document(s)</b>	
1. Gavin Power Plant Water Mass Balance_Rev A.pdf	
<b>Record:</b> Violation History	<b>AOC:</b> Yes
<b>Ref #:</b> AH2-RR-009	<b>Reviewed By:</b> Andi Hodaj
<b>Reviewed Date:</b> 03/02/2022	
EPA reviewed the Facility's Discharge Monitoring Reports (DMR) submissions and found 13 self-reported effluent limit violations for the period January 1, 2017 - December 31, 2021.	
<b>Document(s)</b>	
1. Gavin_effluent_limit_violations.pdf	
<b>Record:</b> NPDES Permit	<b>AOC:</b> No
<b>Ref #:</b> AH2-RR-008	<b>Reviewed By:</b> Andi Hodaj
<b>Reviewed Date:</b> 03/02/2022	
<b>Record:</b> Outfall Location(s)	<b>AOC:</b> No
<b>Ref #:</b> AH2-RR-007	<b>Reviewed By:</b> Andi Hodaj
<b>Reviewed Date:</b> 03/02/2022	
<b>Record:</b> Laboratory Analysis Reports	<b>AOC:</b> No
<b>Ref #:</b> AH2-RR-006	<b>Reviewed By:</b> Andi Hodaj
<b>Reviewed Date:</b> 03/02/2022	
EPA reviewed laboratory analysis reports from Eurofins TestAmerica, Canton, Ohio that the Facility sent to EPA via email on February 18, 2022. The reports described the analysis methods and results for samples collected by the Facility from Outfalls 001, 004, 005 and 021. The samples were collected on March 15, 2021, March 30, 2021, June 18, 2021, June 19, 2021, August 11, 2021, August 16, 2021, December 17, 2021, and December 21, 2021.	

<b>Record:</b> Facility Map	<b>AOC:</b> No
<b>Ref #:</b> AH2-RR-004	<b>Reviewed By:</b> Andi Hodaj
	<b>Reviewed Date:</b> 03/02/2022
<b>Record:</b> DMR Reports	<b>AOC:</b> No
<b>Ref #:</b> AH2-RR-003	<b>Reviewed By:</b> Andi Hodaj
	<b>Reviewed Date:</b> 03/02/2022

**SECTION IV – SAMPLING ACTIVITIES AND ANALYTICAL RESULTS**

<i>Sampling Data Summary Table</i>								
<i>Sample Date</i>	<i>Reference#</i>	<i>Sample Location</i>	<i>Collection Method</i>	<i>Analysis Date(s)</i>	<i>Parameter</i>	<i>Test Method</i>	<i>Result</i>	<i>Permit Limit</i>
02/15/2022 02:17 AM (ET)	AH2-SA-001	Unpermitted discharge through an 18" metal pipe	GRAB	<i>Pending Analysis Report to be transmitted separately)</i>	<i>Pending Analysis Report to be transmitted separately)</i>	<i>Pending Analysis Report to be transmitted separately)</i>	<i>Pending Analysis Report to be transmitted separately)</i>	<i>Pending Analysis Report to be transmitted separately)</i>

**SECTION V - AREAS OF CONCERN**

Areas of Concern may not be in sequential order.

The presentation of areas of concern does not constitute a formal compliance determination or violation.

<b>Unit: Facility-wide</b>	<b>Citation Reference</b>
<b>AH2-RR-009</b>	
EPA reviewed the Facility’s DMR submissions and identified 13 self-reported effluent limit violations for the period January 1, 2017 - December 31, 2021.	<b>Citation: NPDES Permit OH0028762 Part I,A.</b>
<b>AH2-RR-010</b>	
Outfalls for stormwater collected from the Coal Pile Area were not shown in the Flow Diagram.	<b>Citation: NPDES Permit OH0028762 Part IV,J.2.ii.</b>
<b>AH2-RR-011</b>	

<p>The SWPPP was not signed and dated according to requirements of Part IV.H.1. of the NPDES permit.</p>	<p><b>Citation: NPDES Permit OH0028762 Part IV,H.1.</b></p>
<p><b>AH2-RR-012</b></p>	
<p>Calibration records for the flow measuring devices at NPDES permitted outfalls 006, 007, 008, 009 and 011 were not provided to EPA.</p>	<p><b>Citation: NPDES Permit OH0028762 Part III,7.C.</b></p>
<p><b>Unit:</b> Coal loading and transfer area</p>	
<p><b>AH2-OB-001</b></p>	
<p>The coal loading docks had a significant amount of coal and coal dust and are located at a height above the Ohio River. The docks have a metal frame around the edge to contain material from falling into the Ohio River. At both docks part of the metal frame was missing and the Facility had placed absorbent booms on the docks to catch the coal and coal dust. Coal dust and particles could be seen passed these absorbent booms, on the edge of the docks.</p>	<p><b>Citation: NPDES Permit OH0028762 Part IV,D.2.</b></p>
<p><b>Unit:</b> Coal loading and transfer area</p>	
<p><b>AH2-OB-002</b></p>	

<p>On February 15, 2022, EPA observed a pipe that was discharging into the Ohio River. The discharge was not permitted and the pipe was an approximately 18" metal corrugated pipe that was not shown in any of the Facility's maps. The pipe was discharging runoff from the lower areas of the north and south coal conveying transfer stations.</p> <p>Approximately 700 feet from the discharging pipe, EPA observed another pipe on the banks of the Ohio River. This pipe, smaller in diameter than the previous one, was connecting a catchment area at the south end of the Site. The pipe was not discharging at the time of the inspection. The pipe was not shown in any of the facility's plans/maps and the Facility claimed it was not aware of this pipe's existence.</p>	<p><b>Citations: Section 301(a) of the CWA, 33 U.S.C. § 1311(a), discharge of pollutants, from a point source without a permit to do so.</b></p>
<p><b>Unit:</b> Coal yard area</p>	
<p><b>AH2-OB-006</b></p>	
<p>On February 16, 2022, EPA observed the sump containment pit of the Calcium Bromide tank at the coal treatment facility to be full of water. Overflowing water from this pit can reach Kyger Creek and the Ohio River through the stormwater catch basins. The Facility could not say at the time of the inspection where and how the sump pit was being managed. At the time of the inspection, EPA noticed an</p>	<p><b>Citation: NPDES Permit OH0028762 Part IV,C.4.</b></p>

<p>outlet or further storage area, inside the concrete pit that the Facility did not know where it led.</p>	
<p><b>Unit:</b> Coal yard area</p>	
<p><b>AH2-OB-007</b></p>	
<p>Stormwater catch basins that collect runoff from the area between the coal yard and the railroad east of the coal yard, discharge into field ditches that eventually flow into Kyger Creek. These discharges are not permitted.</p>	<p><b>Citations: Section 301(a) of the CWA, 33 U.S.C. § 1311(a), discharge of pollutants, from a point source without a permit to do so.</b></p>
<p><b>Unit:</b> Landfill</p>	
<p><b>AH2-OB-008</b></p>	
<p>EPA observed a discharge into Turkey Run at the landfill area. The discharge was of significant volume and resulted from an underground, broken pipe that was part of the piping system conveying Ohio River water to the landfill for dust suppression activities. The Facility could not tell when the discharge began.</p>	<p><b>Citation: NPDES Permit OH0028762 Part IV,C.4.</b></p>
<p><b>Unit:</b> Lime loading area/Outfall 003</p>	
<p><b>AH2-OB-003</b></p>	
<p>According to the Facility, NPDES permitted Outfall 003 also discharges untreated sanitary sewage from the Village of Cheshire. This untreated sanitary sewage enters the Facility's stormwater sewer before discharging through Outfall 003.</p>	<p><b>Citations: Section 301(a) of the CWA, 33 U.S.C. § 1311(a), discharge of pollutants, from a point source without a permit to do so.</b></p>

<b>AH2-OB-004</b>	
<p>EPA observed three containers with a dust suppressing material for the limestone dust generated from the lime transport from Ohio River to the plant, stored in an area next to the lime transfer dock and by the Ohio River. The name of the chemical is DUSTNOT SYN, a synthetic liquid that is sprayed on the roads for dust suppression instead of water. The containers were not in secondary containment.</p>	<p><b>Citation: NPDES Permit OH0028762 Part IV,C.4.</b></p>
<p><b>Unit:</b> Main plant area</p>	
<b>AH2-OB-005</b>	
<p>EPA observed multiple catch basins around the main plant area that captured stormwater runoff and conveyed it to the Ohio River through Outfalls 003, 004 and 005. EPA also observed sediment and coal ash around and within these catch basins. According to the Facility at the time of the inspection, stormwater from these catch basins is not treated prior to discharge into the Ohio River.</p>	<p><b>Citation: NPDES Permit OH0028762 Part IV,C.6.</b></p>

**SECTION VI – CLOSING CONFERENCE AND FOLLOW UP**

**Closing Conference**

The Region 5 Lead inspector held a closing conference with Facility personnel at 02:45 PM (CT) on 02/16/2022 for the inspection. During the closing conference, Region 5 Lead inspector discussed the observations and Areas of Concerns identified during the inspection. Observations and Areas of Concern have not yet been evaluated for a formal compliance determination.

During the closing conference, EPA highlighted some of the good practices that the Facility has employed to protect water quality, such as signage at several stormwater catch basins, the conveyance system for stormwater at the landfill area, and the maintenance of the treatment ponds at the landfill area

**Follow Up**

The following items were requested by the Lead inspector at the time of the inspection.

<b>Unit:</b> Coal loading and transfer area	<b>Area:</b> Gavin Power Plant	<b>Sub-area:</b>
<b>AH2-OB-002</b>		
On February 28, 2022, the Facility sent a follow-up email and letter that stated, "On February 15, 2022, Gavin began repair and clean-up of the sumps. Clean-up of the coal yard at the barge unloaders began on February 21, 2022, and will be completed over the next two to three weeks. Gavin is evaluating removal of the piping and culvert that drains stormwater in contact with coal to the river or permitting the discharge."		
<b>AH2-OB-006</b>		
In a February 28, 2022, follow-up email, Gavin stated, "Gavin had discussions with Gallia Fuels, who is responsible for the coal treatment facility, the calcium bromide tank, sump, and associated containment, regarding the necessary inspections and requirements to keep the secondary containment clean and empty. Gallia Fuels inspects the water prior to discharge for sheen or other contaminants and then pumps to the coal ponds."		
<b>AH2-OB-007</b>		
In a February 28, 2022, follow-up email, the Facility stated that "Gavin is evaluating the permit requirements for discharges from the two stormwater systems and will prepare a permit application to permit for these discharges in the NPDES permit OR will reroute the stormwater to the already permitted ponds."		
<b>Unit:</b> Landfill	<b>Area:</b> Gavin Power Plant	<b>Sub-area:</b>
<b>AH2-OB-008</b>		
In a February 28, 2022, follow-up email, the Facility stated that it had placed a shut-off valve to stop the discharge and was evaluating plans for repairs of the underground pipe.		
<b>Unit:</b> Main plant area	<b>Area:</b> Gavin Power Plant	<b>Sub-area:</b>
<b>AH2-OB-005</b>		
In a February 28, 2022 follow-up email, the Facility stated that it had contacted a third-party to clean the catch basins and install more protective measures.		

**Communication Log**

No additional information received by Region 5 after exiting the Facility on 02/16/2022.

**SECTION VII – LIST OF APPENDICES**

1. Photo Log
2. Document Log

**APPENDIX 1: PHOTOLOG**

<p>Coal loading docks</p> <p>RIMG2394.JPG</p> <p>02/15/2022 11:10 AM (ET)</p> <p>Andi Hodaj</p> <p>Coal loading and transfer area/Gavin Power Plant</p> <p>No CBI</p> <p>No PII</p> <p>Looking southeast at the north coal loading dock. Coal dust piles are visible in the photo.</p>	
<p>Coal loading dock</p> <p>RIMG2395.JPG</p> <p>02/15/2022 11:10 AM (ET)</p> <p>Andi Hodaj</p> <p>Coal loading and transfer area/Gavin Power Plant</p> <p>No CBI</p> <p>No PII</p> <p>Looking southeast at the north coal loading dock. Part of the metal frame/barrier that prevents coal from falling in the Ohio River is missing. Gavin has placed absorbent booms in that area.</p>	
<p>Coal transfer station sump</p> <p>RIMG2399.JPG</p> <p>02/15/2022 11:25 AM (ET)</p> <p>Andi Hodaj</p> <p>Coal loading and transfer area/Gavin Power Plant</p> <p>No CBI</p> <p>No PII</p> <p>Sump area of coal transfer station 1. The pipe in the photo is used by trucks that periodically haul the sump water to the bottom ash pond.</p>	

Puddle with runoff from the transfer stations  
 RIMG2400.JPG  
 02/15/2022 11:27 AM (ET)  
 Andi Hodaj  
 Coal loading and transfer area/Gavin Power Plant  
 No CBI  
 No PII  
 The puddle/depression area in the photo, collects runoff from the areas around the coal transfer stations and flows into a catch basin a couple hundred feet south that discharges into Ohio River through a pipe.






Catch basin that discharges into Ohio River  
 RIMG2401.JPG  
 02/15/2022 11:30 AM (ET)  
 Andi Hodaj  
 Coal loading and transfer area/Gavin Power Plant  
 No CBI  
 No PII  
 The photo shows runoff from the coal transfer station area that enters a catch basin/manhole that discharges into Ohio River via an underground pipe.



Pipe discharging into Ohio River  
 RIMG2402.JPG  
 02/15/2022 11:33 AM (ET)  
 Andi Hodaj  
 Coal loading and transfer area/Gavin Power Plant  
 No CBI  
 No PII  
 The pipe in the photo was discharging at the time of the inspection. It was discharging the runoff from the area around the coal transfer stations.



<p>Pipe discharging into Ohio River</p>	 <p>A photograph showing a large, dark, cylindrical pipe opening into a dense thicket of trees and brush. The pipe is positioned horizontally, and its interior is visible. The surrounding area is overgrown with various plants and branches.</p>
<p>RIMG2403.JPG</p>	
<p>02/15/2022 11:33 AM (ET)</p>	
<p>Andi Hodaj</p>	
<p>Coal loading and transfer area/Gavin Power Plant</p>	
<p>No CBI</p>	
<p>No PII</p>	
<p>The pipe was discharging runoff from the coal transfer stations area into Ohio River. Camera direction is West.</p>	
<p>Pipe discharging into Ohio River</p>	 <p>A close-up photograph of a pipe discharging into a wooded area. The pipe is heavily rusted and shows significant structural damage, with several longitudinal cracks and missing sections of the outer shell. The surrounding area is filled with green foliage and bare branches.</p>
<p>RIMG2404.JPG</p>	
<p>02/15/2022 11:34 AM (ET)</p>	
<p>Andi Hodaj</p>	
<p>Coal loading and transfer area/Gavin Power Plant</p>	
<p>No CBI</p>	
<p>No PII</p>	
<p>The pipe was discharging runoff from the coal transfer stations area into Ohio River. Camera direction is West.</p>	
<p>Pipe discharge</p>	 <p>A photograph showing a pipe discharge on the banks of the Ohio River. The pipe is lying on the ground, surrounded by a large amount of dry, tangled brush and debris. The river is visible in the background, and the sky is overcast.</p>
<p>RIMG2406.JPG</p>	
<p>02/15/2022 11:36 AM (ET)</p>	
<p>Andi Hodaj</p>	
<p>Coal loading and transfer area/Gavin Power Plant</p>	
<p>No CBI</p>	
<p>No PII</p>	
<p>The discharge from the pipe flowing on the banks of Ohio River.</p>	

<p>Runoff being routed to Ohio River</p>	
<p>RIMG2407.JPG</p>	
<p>02/15/2022 11:43 AM (ET)</p>	
<p>Andi Hodaj</p>	
<p>Coal loading and transfer area/Gavin Power Plant</p>	
<p>No CBI</p>	
<p>No PII</p>	
<p>The runoff from the coal transfer area was being collected to this puddle/depression area and routed to a catch basin and eventually to Ohio River.</p>	
<p>Coal runoff</p>	
<p>RIMG2408.JPG</p>	
<p>02/15/2022 11:46 AM (ET)</p>	
<p>Andi Hodaj</p>	
<p>Coal loading and transfer area/Gavin Power Plant</p>	
<p>No CBI</p>	
<p>No PII</p>	
<p>Coal accumulated under the coal conveyor. There is a gap in the containment structure placed around the coal piles and evidence of runoff from the area. The area slopes towards Ohio River.</p>	
<p>Coal transfer stations and conveyors</p>	
<p>RIMG2409.JPG</p>	
<p>02/15/2022 11:46 AM (ET)</p>	
<p>Andi Hodaj</p>	
<p>Coal loading and transfer area/Gavin Power Plant</p>	
<p>No CBI</p>	
<p>No PII</p>	
<p>Coal transfer stations and conveyors at the Gavin Power Plant. Camera looking north.</p>	

<p>Coal transfer station 1 south</p>		
<p>RIMG2411.JPG</p>		
<p>02/15/2022 11:56 AM (ET)</p>		
<p>Andi Hodaj</p>		
<p>Coal loading and transfer area/Gavin Power Plant</p>		
<p>No CBI</p>		
<p>No PII</p>	<p>02/15/2022 11:56</p>	
<p>Coal transfer station 1 south at Gavin Power Plant. Erosion gullies from station 1 are also shown in the photo.</p>		
<p>Runoff catchment area</p>		
<p>RIMG2413.JPG</p>		
<p>02/15/2022 11:58 AM (ET)</p>		
<p>Andi Hodaj</p>		
<p>Coal loading and transfer area/Gavin Power Plant</p>		
<p>No CBI</p>		<p>02/15/2022 11:58</p>
<p>No PII</p>	<p>02/15/2022 11:58</p>	
<p>Runoff catchment area at the south end of Facility's property that had a pipe that surfaced on the banks of the Ohio River. Based on the topography, this catchment area would collect runoff from the south sides of the coal transfer station 1.</p>		
<p>Unpermitted pipe on the banks of the Ohio River</p>		
<p>RIMG2414.JPG</p>		
<p>02/15/2022 11:59 AM (ET)</p>		
<p>Andi Hodaj</p>		
<p>Coal loading and transfer area/Gavin Power Plant</p>		<p>02/15/2022 11:59</p>
<p>No CBI</p>		<p>02/15/2022 11:59</p>
<p>No PII</p>	<p>02/15/2022 11:59</p>	
<p>Pipe that comes from the catchment area shown in photograph RIMG2413.JPG, on the banks of the Ohio River. The pipe was not listed in Gavin's NPDES permit or in any of the SWPPPs provided to EPA. EPA did not observe a discharge at the time of the inspection.</p>		

Overflowing sump at coal transfer station  
 RIMG2415.JPG  
 02/15/2022 12:05 PM (ET)  
 Andi Hodaj  
 Coal loading and transfer area/Gavin Power Plant  
 No CBI  
 No PII  
 The sump at coal transfer station 2 west was overflowing at the time of the inspection. It was flowing east towards the Ohio River and being captured by a catch basin before eventually flowing into Ohio River.



Samples taken from the discharging pipe  
 RIMG2417.JPG  
 02/15/2022 14:20 PM (ET)  
 Andi Hodaj  
 Coal loading and transfer area/Gavin Power Plant  
 No CBI  
 No PII  
 Samples taken by EPA from the discharging pipe. EPA gave Gavin a split sample.



Calcium Bromide tank  
 RIMG2431.JPG  
 02/16/2022 08:26 AM (ET)  
 Andi Hodaj  
 Coal loading and transfer area/Gavin Power Plant  
 No CBI  
 No PII  
 The Calcium Bromide tank's sump at the coal treatment facility was full at the time of the inspection.



Stormwater catch basin at the coal yard area  
 RIMG2432.JPG  
 02/16/2022 08:31 AM (ET)  
 Andi Hodaj  
 Coal loading and transfer area/Gavin Power Plant  
 No CBI  
 No PII  
 Stormwater catch basin that collects runoff from the coal yard area and discharges into Kyger Creek.



Runoff into Turkey Run  
 RIMG2444.JPG  
 02/16/2022 09:52 AM (ET)  
 Andi Hodaj  
 Landfill/Gavin Power Plant  
 No CBI  
 No PII  
 Runoff was entering Turkey Run on the opposite bank from where outfall 007 was discharging. The runoff was from a broken pipe at the landfill area that provided water for the dust suppression tree.



Runoff from the broken pipe at the landfill  
 RIMG2445.JPG  
 02/16/2022 09:57 AM (ET)  
 Andi Hodaj  
 Landfill/Gavin Power Plant  
 No CBI  
 No PII  
 Runoff from a broken pipe at the landfill flowing into Turkey Run.



Broken pipe location at the landfill
RIMG2446.JPG
02/16/2022 09:59 AM (ET)
Andi Hodaj
Landfill/Gavin Power Plant
No CBI
No PII
Location of the underground broken pipe from where water was flowing into Turkey Run.



Dust suppression water tree
RIMG2447.JPG
02/16/2022 10:00 AM (ET)
Andi Hodaj
Landfill/Gavin Power Plant
No CBI
No PII
A dust suppression water tree at the landfill area. Trucks park under the water tree and fill the tank that is used for spraying.



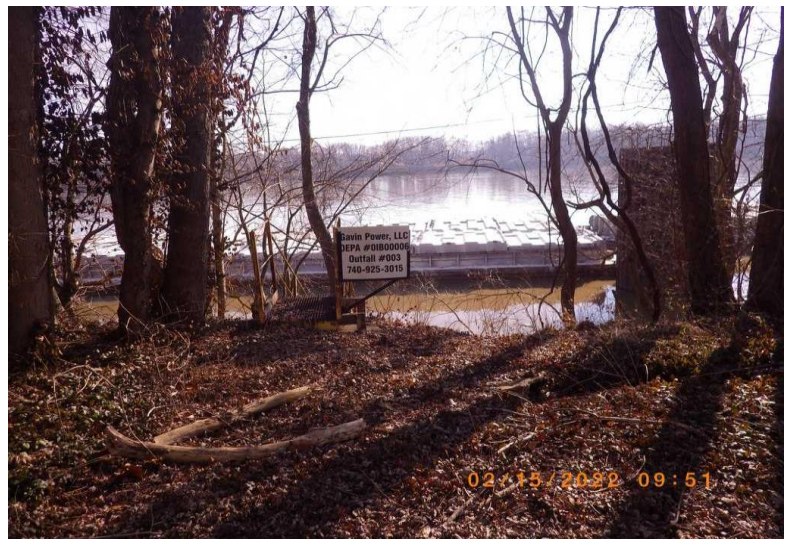
Channelized flow into Turkey Run
RIMG2448.JPG
02/16/2022 10:00 AM (ET)
Andi Hodaj
Landfill/Gavin Power Plant
No CBI
No PII
Flow from the broken pipe at the landfill has created a flow path to the Turkey Run.



Outfall 003
RIMG2376.JPG
02/15/2022 09:54 AM (ET)
Andi Hodaj
Lime loading area/Outfall 003/Gavin Power Plant
No CBI
No PII
Outfall 003 is permitted to discharge stormwater into Ohio River. However, untreated sewage is also being discharged through this outfall into Ohio River.



Outfall 003
RIMG2375.JPG
02/15/2022 09:51 AM (ET)
Andi Hodaj
Lime loading area/Outfall 003/Gavin Power Plant
No CBI
No PII
Signage for stormwater outfall 003. Outfall 003 discharges into Ohio River.



Outfall 003
RIMG2377.JPG
02/15/2022 09:56 AM (ET)
Andi Hodaj
Lime loading area/Outfall 003/Gavin Power Plant
No CBI
No PII
Stormwater Outfall 003 discharges into Ohio River. According to the Facility, in addition to stormwater from the plant, it also discharges untreated sewage from the village of Cheshire.



DUSTNOT SYN tanks
RIMG2380.JPG
02/15/2022 10:19 AM (ET)
Andi Hodaj
Lime loading area/Outfall 003/Gavin Power Plant
No CBI
No PII
Dust suppressing material for limestone dust generated from the lime transport from Ohio River to the plant, stored in an area next to the lime transfer dock and by the Ohio River.




DUSTNOT SYN
RIMG2381.JPG
02/15/2022 10:20 AM (ET)
Andi Hodaj
Lime loading area/Outfall 003/Gavin Power Plant
No CBI
No PII
Label on one of the tanks containing the dust suppression chemical, DUSTNOT SYN.



Stormwater catch basin
RIMG2426.JPG
02/15/2022 15:25 PM (ET)
Andi Hodaj
Main plant area/Gavin Power Plant
No CBI
No PII
Stormwater catch basin at the main plant area that discharges runoff into the Ohio River via outfall 005. Facility had placed hay bales around the catch basin cover to prevent solids from entering the catch basin.



Stormwater catch basin	
RIMG2427.JPG	
02/15/2022 15:53 PM (ET)	
Andi Hodaj	
Main plant area/Gavin Power Plant	
No CBI	
No PII	
Stormwater catch basin next to one of the cooling towers that discharges into Ohio River through outfall 004. Facility had placed signage next to the basin to raise awareness among its employees.	

**APPENDIX 2: DOCUMENT LOG**

Document Type	Document Name	Contains CBI	Contains PII	Uploaded By	Date Received
Laboratory reports	Gavin_EPA_Lab results.pdf	No	No	Andi Hodaj	03/28/2022
Violation History	Gavin_effluent_limit_violations.pdf	No	No	Andi Hodaj	03/10/2022



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

US EPA Region 5 LSASD Analytical Services Branch

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

**Date:** 3/23/2022

**Title:** ASB Data Report for Gavin Power Plant

**To:** Water Division, US EPA Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604

**From:** Amanda Wroble, Chemist  
wroble.amanda@epa.gov  
US EPA Region 5 LSASD Analytical Services Branch

The results reported in this document apply to the samples as received and relate only to the items tested. The data transmitted under this cover memo successfully passed the data review process and applicable Analytical Services Branch (ASB) laboratory Standard Operating Procedures. In accordance with the EPA QA/G-8 *Guidance on Environmental Data Verification and Data Validation*, ASB performs data verification on all the data generated internally. ASB does not perform data validation or quality assessment procedures.

This report was reviewed and the information provided herein accurately represents the analysis performed.

A handwritten signature in black ink that reads "Amanda Wroble". The signature is written in a cursive style and is positioned above a horizontal line.

*Please contact the analyst with any technical report issues, Amanda Wroble at (312)-353-0375 for sample project concerns, and Robert Snyder at (312)-353-9083 with data transmittal questions. Thank you.*

**Attached are Results for: Gavin Power Plant**

**Analyses included in this report:**

Ca ICP (W)  
Hardness by calc

Metals ICP-AES (w)

Mg ICP (W)

Report Name: 2202008 Ca ICP (W) Hardness by calc Metals ICP-AES (w) Mg ICP (W) FINAL Mar 23 22 1104



**Environmental Protection Agency Region 5**  
**US EPA Region 5 LSASD Analytical Services Branch**

536 South Clark Street, Chicago, IL 60605  
 Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: Gavin Power Plant Project Number: [none] Project Manager: Andi Hodaj	<b>Reported:</b> Mar-23-22 11:04
---	---	-------------------------------------

**Accredited Analyses included in this Report**



**Method:** EPA 200.7 in Water  
**Analysis:** Metals ICP-AES (w)

Analyte	Certifications
Aluminum	ISO/IEC 17025:2017
Antimony	ISO/IEC 17025:2017
Arsenic	ISO/IEC 17025:2017
Barium	ISO/IEC 17025:2017
Beryllium	ISO/IEC 17025:2017
Boron	ISO/IEC 17025:2017
Cadmium	ISO/IEC 17025:2017
Calcium	ISO/IEC 17025:2017
Chromium	ISO/IEC 17025:2017
Cobalt	ISO/IEC 17025:2017
Copper	ISO/IEC 17025:2017
Iron	ISO/IEC 17025:2017
Lead	ISO/IEC 17025:2017
Lithium	ISO/IEC 17025:2017
Magnesium	ISO/IEC 17025:2017
Manganese	ISO/IEC 17025:2017
Molybdenum	ISO/IEC 17025:2017



**Environmental Protection Agency Region 5**  
**US EPA Region 5 LSASD Analytical Services Branch**

536 South Clark Street, Chicago, IL 60605  
 Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: Gavin Power Plant Project Number: [none] Project Manager: Andi Hodaj	<b>Reported:</b> Mar-23-22 11:04
---	---	-------------------------------------

**Accredited Analyses included in this Report**



**Method:** EPA 200.7 in Water  
**Analysis:** Metals ICP-AES (w)

Analyte	Certifications
Nickel	ISO/IEC 17025:2017
Potassium	ISO/IEC 17025:2017
Selenium	ISO/IEC 17025:2017
Silver	ISO/IEC 17025:2017
Sodium	ISO/IEC 17025:2017
Strontium	ISO/IEC 17025:2017
Thallium	ISO/IEC 17025:2017
Tin	ISO/IEC 17025:2017
Titanium	ISO/IEC 17025:2017
Vanadium	ISO/IEC 17025:2017
Zinc	ISO/IEC 17025:2017

**Analytes not listed above are not accredited by ANAB.**



Environmental Protection Agency Region 5

US EPA Region 5 LSASD Analytical Services Branch

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Table with 3 columns: Water Division, US EPA Region 5; Project: Gavin Power Plant; Reported: Mar-23-22 11:04

ANALYSIS CASE NARRATIVE

GENERAL INFORMATION

ASB received 1 water sample for total trace metals analysis by inductively coupled plasma-atomic emission spectroscopy (ICP-AES) on February 18, 2022. The assigned work order(s) and sample number(s) to which this narrative applies are listed below:

Table with 3 columns: Work Order (# of samples), Batch Number, LIMS Sample IDs

The designated analyst for this sample, Amanda Wroble, can be reached at 312.353.0375. All holding times were met. The sample for this work order was received at ASB with pH > 2. The pH adjustment was made by adding 1:1 HNO3 to pH <2, and at least 24 hours elapsed before subsampling began.

The sample was digested using ASB SOP METALS025, Rev. 4 (EPA Method 200.2) and analyzed using ASB SOP METALS003A, Rev. 10 (EPA Method 200.7/SW-846 Method 6010D).

SAMPLE ANALYSIS AND RESULTS

The data reported herein meet the requirements referenced in the SOP used for analysis. For the title of the approved sampling plan, refer to the submitted analytical request form.

QUALITY CONTROL

All quality control audits that bracketed the sample to which this narrative applies were within ASB limits for the requested analytes or did not result in qualification of data with the following exceptions.

Matrix Spike (MS): Recovery Limit = 100 ± 25%. The aluminum recovery for B22B041-MS1 (286%) was outside the audit limit. The aluminum result for the source sample (2202008-01) was flagged "K" for potential high bias.

Laboratory Duplicate (DUP): Relative Percent Difference Limit ≤ 20%. The zinc RPD for B22B041-DUP1 (25.5%) was outside the audit limit. The zinc result for the source sample (2202008-01) was flagged "J" for imprecision.



## Environmental Protection Agency Region 5

### US EPA Region 5 LSASD Analytical Services Branch

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5  
77 West Jackson Boulevard  
Chicago IL, 60604

Project: Gavin Power Plant  
Project Number: [none]  
Project Manager: Andi Hodaj

**Reported:**  
Mar-23-22 11:04

It is also noted that the zinc recoveries for reporting limit checks (RLCs) #1-3 (140%-143%) were outside the audit limit (RLC Recovery Limit =  $100 \pm 30\%$ ). The zinc results for 2202008-01 and B22B041-DUP1 were both near the reporting limit (0.030 mg/L). No additional flags were added due to the failure of the RLC audit.



**Environmental Protection Agency Region 5**  
**Chicago Regional Laboratory**

536 South Clark Street, Chicago, IL 60605  
 Phone:(312)353-8370 Fax:(312)886-2591

**WORK ORDER**

Printed: 2/18/2022 3:43:04PM

**2202008**

**US EPA Region 5 LSASD Analytical Services Branch**

<b>Client:</b> Water Division, US EPA Region 5	<b>Project Manager:</b> Angela Ockrassa Davis
<b>Project:</b> Gavin Power Plant	<b>Project Number:</b> [none]

<b>Report To:</b>	Andi Hodaj	77 West Jackson Boulevard	Phone: (312) 353-4645
	Water Division, US EPA Region 5	Chicago, IL 60604	Fax: (312) 886-2001

Date Due:	Apr-04-22 15:00 (45 day TAT)	Date Received:	Feb-18-22 14:08
Received By:	Robert Snyder	Date Logged In:	Feb-18-22 15:07
Logged In By:	Robert Snyder		

Sample tags/labels	Yes	<b>Work Order Comments:</b>
Seals Intact	Yes	pH paper used in SC = 21K0405
Received on ice	Yes	
Paperwork Included	Yes	

Cooler(s) information:  
 Default Cooler - 2.40 C

**Sample ID:** [2202008-01](#)      **Sampled:** [Feb-15-22 14:17](#)      **Matrix:** [Water](#)  
**Sample Name:** [S01](#)      **Sample Location/Comments:** [Pipe draining station 1 and 2](#)

**Sample Comments:**

Analysis	Hold time (days)	Expires	Comments
Ca ICP (W)	180	Aug-14-22 14:17	pH = 6
Hardness by calc	180	Aug-14-22 14:17	pH = 6
Metals ICP-AES (w)	180	Aug-14-22 14:17	pH = 6
Mg ICP (W)	180	Aug-14-22 14:17	pH = 6
Solids, TSS	7	Feb-22-22 14:17	pH = 6

**Analysis groups included in this work order**

Hardness by calc

---

Mg ICP (W)	Ca ICP (W)
------------	------------

WORK ORDER MEMO: Metals sample arrived unpreserved, but this was agreed to by ASB at project acceptance. Sample will be preserved here

2202008

US EPA Region 5 LSASD Analytical Services Branch

Client: Water Division, US EPA Region 5  
Project: Gavin Power Plant

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Reviewed By \_\_\_\_\_ Date \_\_\_\_\_



**Environmental Protection Agency Region 5**

**US EPA Region 5 LSASD Analytical Services Branch**

536 South Clark Street, Chicago, IL 60605  
 Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: Gavin Power Plant Project Number: [none] Project Manager: Andi Hodaj	<b>Reported:</b> Mar-23-22 11:04
---	---	-------------------------------------

**Metals by ICP-AES using EPA 200.7 (modified)**  
**US EPA Region 5 LSASD Analytical Services Branch**

**S01 (2202008-01)      Matrix: Water      Sampled: Feb-15-22 14:17      Received: Feb-18-22 14:08**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Aluminum	0.954	K		0.500	mg/L	1	B22B041	Mar-01-22	Mar-14-22
Antimony	U			0.0200	"	"	"	"	"
Arsenic	U			0.0400	"	"	"	"	"
Barium	0.0602			0.003	"	"	"	"	"
Beryllium	U			0.002	"	"	"	"	"
Boron	0.169			0.0500	"	"	"	"	"
Cadmium	U			0.002	"	"	"	"	"
Calcium	110			0.500	"	"	"	"	"
Chromium	U			0.005	"	"	"	"	"
Cobalt	U			0.006	"	"	"	"	"
Copper	U			0.0200	"	"	"	"	"
Iron	3.09			0.0800	"	"	"	"	"
Lead	U			0.0300	"	"	"	"	"
Lithium	U			0.0250	"	"	"	"	"
Magnesium	22.5			0.200	"	"	"	"	"
Manganese	0.230			0.008	"	"	"	"	"
Molybdenum	U			0.0120	"	"	"	"	"
Nickel	U			0.0120	"	"	"	"	"
Potassium	5.91			0.800	"	"	"	"	"
Selenium	U			0.0500	"	"	"	"	"
Silver	U			0.0100	"	"	"	"	"
Sodium	89.0			0.400	"	"	"	"	"
Strontium	0.519			0.005	"	"	"	"	"
Thallium	U			0.0600	"	"	"	"	"
Tin	U			0.0200	"	"	"	"	"
Titanium	0.0116			0.006	"	"	"	"	"
Vanadium	U			0.005	"	"	"	"	"
Zinc	0.0379	J		0.0300	"	"	"	"	"



**Environmental Protection Agency Region 5**

**US EPA Region 5 LSASD Analytical Services Branch**

536 South Clark Street, Chicago, IL 60605  
 Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: Gavin Power Plant Project Number: [none] Project Manager: Andi Hodaj	<b>Reported:</b> Mar-23-22 11:04
---	---	-------------------------------------

**Hardness by Calculation**

**US EPA Region 5 LSASD Analytical Services Branch**

**S01 (2202008-01)**

**Matrix: Water**

**Sampled: Feb-15-22 14:17**

**Received: Feb-18-22 14:08**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Hardness</b>	<b>367</b>		0.403	2.07	mg CaCO3/L	1	[CALC]	Mar-01-22	Mar-14-22



**Environmental Protection Agency Region 5**  
**US EPA Region 5 LSASD Analytical Services Branch**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5  
77 West Jackson Boulevard  
Chicago IL, 60604

Project: Gavin Power Plant  
Project Number: [none]  
Project Manager: Andi Hodaj

**Reported:**  
Mar-23-22 11:04

**Notes and Definitions**

- K The identification of the analyte is acceptable; the reported value may be biased high. The actual value is expected to be less than the reported value.
- J The identification of the analyte is acceptable; the reported value is an estimate.
- U Not Detected
- NR Not Reported
- Q QC limit Exceeded



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

US EPA Region 5 LSASD Analytical Services Branch

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

**Date:** 3/22/2022

**Title:** ASB Data Report for Gavin Power Plant

**To:** Water Division, US EPA Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604

**From:** Christina Rice, Chemist  
Rice.Christina@epa.gov  
US EPA Region 5 LSASD Analytical Services Branch

The results reported in this document apply to the samples as received and relate only to the items tested. The data transmitted under this cover memo successfully passed the data review process and applicable Analytical Services Branch (ASB) laboratory Standard Operating Procedures. In accordance with the EPA QA/G-8 *Guidance on Environmental Data Verification and Data Validation*, ASB performs data verification on all the data generated internally. ASB does not perform data validation or quality assessment procedures.

This report was reviewed and the information provided herein accurately represents the analysis performed.

A handwritten signature in cursive script that reads "Christina Rice".

*Please contact the analyst with any technical report issues, Amanda Wroble at (312)-353-0375 for sample project concerns, and Robert Snyder at (312)-353-9083 with data transmittal questions. Thank you.*

**Attached are Results for: Gavin Power Plant**

**Analyses included in this report:**

---

Solids, TSS

Report Name: 2202008 Solids, TSS FINAL Mar 22 22 0755



**Environmental Protection Agency Region 5**  
**US EPA Region 5 LSASD Analytical Services Branch**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: Gavin Power Plant Project Number: [none] Project Manager: Andi Hodaj	<b>Reported:</b> Mar-22-22 07:55
---	---	-------------------------------------

**Accredited Analyses included in this Report**



**Method:** SM 2540 D in Water

**Analysis:** Solids, TSS

**Analyte**

**Certifications**

---

Total Suspended Solids

ISO/IEC 17025:2017

---

Analytes not listed above are not accredited by ANAB.



**Environmental Protection Agency Region 5**  
**US EPA Region 5 LSASD Analytical Services Branch**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5  
77 West Jackson Boulevard  
Chicago IL, 60604

Project: Gavin Power Plant  
Project Number: [none]  
Project Manager: Andi Hodaj

**Reported:**  
Mar-22-22 07:55

**ANALYSIS CASE NARRATIVE**

**Analysis List**

**Solids, TSS**

Analyst: Christina Rice  
Phone #: 312-353-7358

**General Information**

**Samples analyzed:**

<u>Sample</u>	<u>Analysis List</u>
2202008-01	Solids, TSS

**Holding times:**

All holding times were met.

**Sample Analysis and Results**

The samples were analyzed using ASB SOP AIG018, Version #7. The samples were stored in the refrigerator at all times, except when in use. The data reported herein meets any requirements referenced in the previously mentioned SOP, except for those listed in the Quality Control section.

**SOP Based on:**

Method List  
SM 2540 D

**Quality Control**

All quality control audits were within ASB limits or did not result in qualification of the data.



**Environmental Protection Agency Region 5**  
**Chicago Regional Laboratory**

536 South Clark Street, Chicago, IL 60605  
 Phone:(312)353-8370 Fax:(312)886-2591

**WORK ORDER**

Printed: 2/18/2022 3:43:04PM

**2202008**

**US EPA Region 5 LSASD Analytical Services Branch**

<b>Client:</b> Water Division, US EPA Region 5	<b>Project Manager:</b> Angela Ockrassa Davis
<b>Project:</b> Gavin Power Plant	<b>Project Number:</b> [none]

<b>Report To:</b>	Andi Hodaj	77 West Jackson Boulevard	Phone: (312) 353-4645
	Water Division, US EPA Region 5	Chicago, IL 60604	Fax: (312) 886-2001

Date Due:	Apr-04-22 15:00 (45 day TAT)	Date Received:	Feb-18-22 14:08
Received By:	Robert Snyder	Date Logged In:	Feb-18-22 15:07
Logged In By:	Robert Snyder		

Sample tags/labels	Yes	<b>Work Order Comments:</b>
Seals Intact	Yes	pH paper used in SC = 21K0405
Received on ice	Yes	
Paperwork Included	Yes	
<b>Cooler(s) information:</b>		
Default Cooler - 2.40 C		

**Sample ID:** [2202008-01](#)      **Sampled:** [Feb-15-22 14:17](#)      **Matrix:** [Water](#)  
**Sample Name:** [S01](#)      **Sample Location/Comments:** [Pipe draining station 1 and 2](#)

**Sample Comments:**

Analysis	Hold time (days)	Expires	Comments
Ca ICP (W)	180	Aug-14-22 14:17	pH = 6
Hardness by calc	180	Aug-14-22 14:17	pH = 6
Metals ICP-AES (w)	180	Aug-14-22 14:17	pH = 6
Mg ICP (W)	180	Aug-14-22 14:17	pH = 6
Solids, TSS	7	Feb-22-22 14:17	pH = 6

**Analysis groups included in this work order**

<i>Hardness by calc</i>
Mg ICP (W)                      Ca ICP (W)

WORK ORDER MEMO: Metals sample arrived unpreserved, but this was agreed to by ASB at project acceptance. Sample will be preserved here

2202008

US EPA Region 5 LSASD Analytical Services Branch

Client: Water Division, US EPA Region 5  
Project: Gavin Power Plant

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Reviewed By \_\_\_\_\_

Date \_\_\_\_\_



**Environmental Protection Agency Region 5**  
**US EPA Region 5 LSASD Analytical Services Branch**

536 South Clark Street, Chicago, IL 60605  
 Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: Gavin Power Plant Project Number: [none] Project Manager: Andi Hodaj	<b>Reported:</b> Mar-22-22 07:55
---	---	-------------------------------------

**Total Suspended Solids, SM 2540 D (modified)**  
**US EPA Region 5 LSASD Analytical Services Branch**

S01 (2202008-01)

Matrix: Water

Sampled: Feb-15-22 14:17

Received: Feb-18-22 14:08

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Suspended Solids</b>	<b>44</b>			5	mg/L	1	B22B032	Feb-22-22	Feb-22-22



**Environmental Protection Agency Region 5**  
**US EPA Region 5 LSASD Analytical Services Branch**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5  
77 West Jackson Boulevard  
Chicago IL, 60604

Project: Gavin Power Plant  
Project Number: [none]  
Project Manager: Andi Hodaj

**Reported:**  
Mar-22-22 07:55

**Notes and Definitions**

U Not Detected  
NR Not Reported  
Q QC limit Exceeded

Table 1 Effluent Limit Violations for the period January 1, 2017 - December 31, 2021

Monitoring Period Date	Outfall	Parameter Description	Average Daily Flow (MGD)	Limit Type	DMR Value	DMR Value Unit	Limit Value	Limit Value Unit	% Exceedance
1/31/2017	8	Mercury, total low level		DAILY MX	0.000637	mg/L	0.000242	mg/L	163
1/31/2017	8	Mercury, total low level		DAILY MX	0.000465	kg/d	0.000348	kg/d	34
6/30/2018	7	Toxicity, choice of species	0.127	DAILY MX	1.26	tox acute	1	tox acute	26
6/30/2019	7	Toxicity, choice of species	0.152	DAILY MX	1.62	tox acute	1	tox acute	62
6/30/2019	9	Mercury, total low level		MO AVG	2.2E-05	mg/L	1.2E-05	mg/L	83
7/31/2019	9	Mercury, total low level		MO AVG	1.9E-05	mg/L	1.2E-05	mg/L	58
8/31/2019	7	Toxicity, choice of species	0.0902	DAILY MX	1.68	tox acute	1	tox acute	68
8/31/2019	7	Mercury, total low level		MO AVG	1.6E-05	mg/L	1.2E-05	mg/L	33
12/31/2019	7	Toxicity, choice of species	0.218	DAILY MX	3.58	tox acute	1	tox acute	258
6/30/2020	2	Oxygen, dissolved (DO)		DAILY MN	3.09	mg/L	5	mg/L	38
6/30/2020	9	Toxicity, choice of species	0.15	DAILY MX	3.73	tox acute	1	tox acute	273
6/30/2021	9	Toxicity, choice of species	0.16	DAILY MX	2.38	tox acute	1	tox acute	138
6/30/2021	9	Mercury, total low level		MO AVG	1.7E-05	mg/L	1.2E-05	mg/L	42