



Maryland Department of Environment
Water and Science Administration
Compliance Program
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Inspector: Mohammed Umoru
AI ID: 3076

Site Name: Patapsco WWTP
Facility Address: 3501 Asiatic Ave, Curtis Bay, MD 21226
County: Baltimore City County
Start Date/Time: June 09, 2026, 03:30 PM
End Date /Time: June 09, 2026, 06:00 PM
Media Type(s): NPDES Municipal Major Surface Water

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NPDES Municipal Major Surface Water

Permit / Approval Numbers: 15DP0850
NPDES Numbers: MD0021601
Inspection Reason: Follow-up
Site Status: Active
Compliance Status: Not Applicable
Site Condition: Additional Investigation Required
Recommended Action: Continue Routine Investigation
Evidence Collected: Photos or Videos Taken, Record Review, Visual Observation
Delivery Method: Email
Weather: Clear, Good

Inspection Findings:

Introduction:

The Patapsco Wastewater Treatment Plant (WWTP) is a 73 million Gallons per Day (MGD) advanced treatment facility currently operating under an administrative permit extension, with effluent discharging to the Patapsco River and biosolids managed offsite by Synagro, Inc. This unannounced emergency site inspection was initiated to investigate and evaluate the operational impacts of a major electrical incident within the main substation. The incident occurred during work associated with the SC926 electrical infrastructure project.

Site Walk / Observations:

Upon arriving at the Patapsco WWTP at approximately 3:30 p.m., emergency personnel—including police, EMTs, and other first responders were actively securing the scene. Due to immediate safety hazards, initial access to the facility was restricted until approximately 5:00 p.m., at which point site entry was cleared and a meeting was held with facility

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representatives. It was reported that at approximately 1:00 p.m. that day, staff from the electrical contractor handling the SC920 project were assessing the main electrical substation when an electrical failure occurred at the main switch gear. The resulting power outage severely disrupted the facility's power supply and treatment processes, while three of the contractor employees sustained injuries and were transported to the hospital.

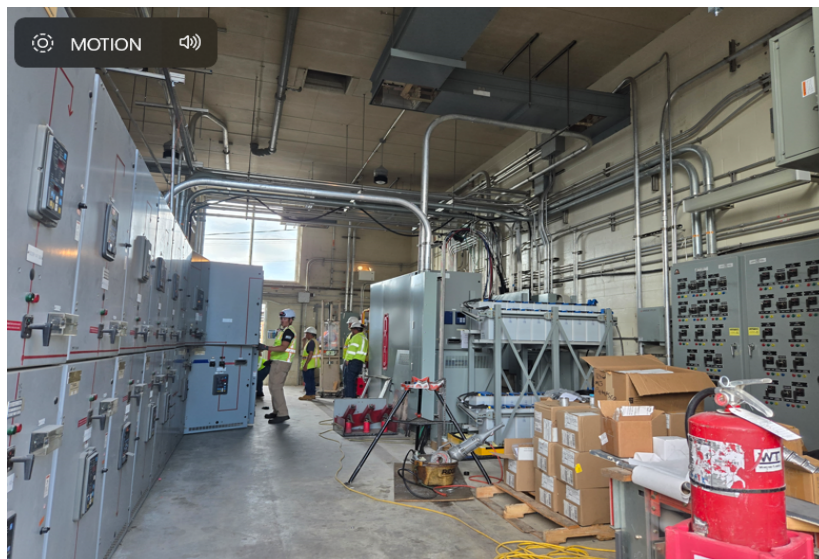


Image 01: The electrical failure occurred within the main substation

The loss of power immediately affected the plant's treatment process. They reported that the facility deployed two emergency generators: one for powering the primary screens, and a second to run the disinfection system at the Chlorine Contact Chambers. Because power was unavailable to run the tertiary pumps, tertiary treatment was completely bypassed. The wastewater stream was restricted to a gravity-fed flow from the primary bar screens through the primary settling tanks, reactors, and secondary clarifiers, before reaching the chlorine contact chambers for final disinfection.



Image 02: Dosing systems fully operational at contact chamber

At the time of the inspection, contractors and Baltimore Gas & Electric (BGE) personnel were on-site assessing the switchgear damage, though an exact timeline for full power restoration remained unknown. It was reported that a 500-horsepower (HP) generator is required to power a single tertiary pump, meaning a minimum of four 500-HP generators will be needed and brought online to fully restore the tertiary treatment process. Concurrently, severe vibration was

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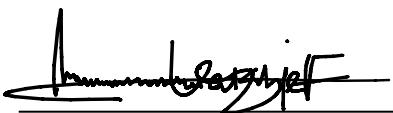
observed at the industrial influent manhole cover, which subsequently began backing. The facility brought in two additional emergency generators during the inspection and began installing them to power up the low lift pump station to help stop the surcharge at the industrial influent manhole cover.

During the walkthrough of the facility's outfall and Chlorine Contact Chambers indicated that while the effluent was successfully receiving chemical disinfection, the lack of tertiary filtration visibly impacted discharge quality. The effluent lacked its typical clarity and exhibited accumulation of persistent foam that did not easily dissipate. Despite the visual characteristics, process control testing conducted by plant staff at 3:30 p.m. review that pH and Dissolved Oxygen (DO) levels remained within limit ranges across all four active contact chambers. Specifically, Chamber 1 recorded a pH of 7.07 and a DO of 7.5 mg/L; Chamber 2 recorded a pH of 6.91 and a DO of 7.1 mg/L; Chamber 3 recorded a pH of 6.83 and a DO of 7.3 mg/L; and Chamber 4 recorded a pH of 6.82 and a DO of 7.9 mg/L.



Image 03: Final effluent discharge with persistent foam

A follow-up inspection will be conducted to check on the power restoration and treatment status.

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06/09/2026

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Signature/Date

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