



STATUS REPORT

Progress and Improvements

DPW BUREAU/OFFICE Patapsco WTPP

Date 8/19/22

Parameter	Week ending 8/5/22	Week ending 8/12/22	Weekly Permit Limit	Monthly Permit Limits	Weekly Limits Met?	Monthly Limits Met?
Total Suspended Solids (TSS)	7 mg/L	5 mg/L	45 mg/L	30 mg/L	Yes	Yes
Biochemical Oxygen Demand (BOD)	7 mg/L	7 mg/L	45	30	Yes	Yes
Total Phosphorus (TP)	0.64 mg/L	0.48 mg/L	3.0	2.0	Yes	Yes
Ammonia (NH ₃)	5 mg/L	5.7 mg/L	N/A	6.3	N/A	No**
<i>Enterococci</i>	10 MPN/100 mls	10 MPN/100 mls	N/A	35 MPN/100 mls	N/A	Yes

N/A= Not Applicable

MPN= Most Probable Number

****Repairs to liquid oxygen (LOX) plant were completed on August 9, 2022. Patapsco is beginning to see improvements for Ammonia level, which will positively impact our Total Nitrogen loading.

Maintenance Updates

DPW continues to make necessary repairs and upgrades over the last few weeks to ensure compliance, efficiency, and best in class service. The Patapsco WWTP has re-developed and implemented its preventive maintenance program. The preventive maintenance program covers all major equipment items at the wastewater treatment plant and the associated preventive maintenance tasks necessary for each piece of equipment, including the frequency of service. The 30-day preventative maintenance tasks have begun.

The Liquid Oxygen (LOX) plant has been repaired and placed back in service. The plant control system programming has been completed, compressed air lines cleaned, Intake filters replaced, and Mole Sieves cleaned. The operation of the LOX plant is critical to Ammonia reduction and the nitrification processes.

The Gravity Sludge Thickeners (GSTs) repairs to #1 and #2 are completed. The plant control system programming completed, thickened sludge pump B-1 installed, motor on B-1 replaced, shedder on B-3 unclogged. The City's contractor is rehabilitating GST #4 currently. The repairs to the GST's aids the plant in biosolids removal from the process stream.

The De-Nitrification Filters (DNF) has had the Hypochlorite quills removed, cleaned, and returned to service. The temporary air Compressors are routinely drained and rotated. These will remain in place until the permanent compressor manufacturer completes their repairs within the next 60 days.

The Tertiary Pumping Station (TPS) has had all four compactors unclogged and cleaned. #4 TPS pump was removed and transported to factory for repair. This pump repair will be completed in December of 2022. The remaining 4 TPS pumps are sufficient for plant operations. The TPS has five pumps altogether, with two needed for regular flows, three for heavy, and the remaining two are redundant backups.

Summary

With significant improvements to the LOX plant and denitrification processes, Patapsco has been able to bring its Ammonia parameters under permit levels in August *preliminary* reports. We look forward to sustaining downward trends and maintaining compliance as maintenance and improvements continue.