

Activities Report
City of Hartford Wastewater Treatment Plant
March 2023

The wastewater treatment plant was struggling with meeting phosphorus removal requirements. Since the end of February phosphorus concentration in our effluent have been well within what our permit requires. The following steps were taken to achieve, and prove through laboratory data that we have achieved, satisfactory phosphorus concentrations:

- The ferric pumps manifold O-rings were replaced.
- The ferric pumps tubes were replaced
- The ferric feed location was changed from the influent channel to both the influent channel and the final clarifier splitter box.
- Lab equipment was purchased that allows accurate volumes to be used in the phosphorus tests.
- Lab equipment was purchased that allows for the proper incubation temperature for the phosphorus test.
- Since the end of February phosphorus concentrations have been within permit limits. The project at the wastewater treatment plant includes a day tank that will make it easier for the pumps to draw ferric.

The oil was changed in one of the Rotating Biological Contactors. Both RBCs received their first oil change this year.

In January AM Hawk's effluent was sampled as required by their discharge permit.

One of Hartford's 2 sludge pumps were rebuilt and put back into service. The other sludge pump has been removed and is going to be rebuilt.

The Michigan Industrial Pretreatment Program (IPP) Annual Report was completed and submitted to EGLE.

The Discharge Monitoring Report for the month of February was completed and submitted to EGLE.

The influent meter failed and was nonfunctional for two weeks. This impacted the ferric pumps and the influent sampler, but both were able to be reset to run independently of the influent meter. The influent meter has been replaced.

A nonfunctioning heater on the grit classifier was replaced.

Mark was trained on lab testing and is ready to work by himself on week days.

Hoses were changed on the influent and effluent samplers.

Brush was trimmed back and the yard cleanup is in progress.

A valve was replaced on the lime room water line.

I am wanting to get the UV system functional.

- I want to install a hoist/lift system to help the crew safely lift the light banks out of the channel and suspend them for cleaning. The construction crew is aware that we want to include this. We have a model in mind that the crew feels will work for them and that the construction foreman believes is workable.
- EGLE has been informed that Hartford wants to trial NeoWaterFX as an alternative to ferric chloride.
- A representative from NeoWaterFX did jar testing on Hartford's was stream and found that the product would be effective. Results of his testing were submitted to EGLE. We are waiting on approval from EGLE to trial the product. I was told that approval would likely come in early summer.
- At any time, we can replace the stained bulbs and sleeves on the UV banks and see how they work. I would like to wait until we are trialing the NeoWaterFX because it doesn't stain the way ferric chloride does. Its possible that if a lift system was installed to assist the crew in handling the light banks, we could implement a bi-weekly cleaning plan with a product like CLR that would make the lights functional right now. I am reluctant to replace the bulbs and sleeves until I am confident that either the water won't stain the bulbs or that cleaning the bulbs is going to be easy enough that the crew can clean them very frequently.

Andrew Warner