

NIPSCO chooses a greener path to comply with NPDES regulations

NIPSCO uses a large reservoir for settling out suspended solids prior to discharging the water back to the Kankakee River. This water is rich in nutrients, causing algae to grow at an undesired rate. Algae has a direct effect on pH and TSS levels in water. By using MPC-Buoy, NIPSCO has improved their water quality and their environmental impact.



- ✔ TSS levels reduced to less than 3ppm
- ✔ Eliminated UV blocker chemical from their treatment program
- ✔ Since installation, TSS levels never exceeded monthly average for compliance
- ✔ 66% algacide reduction within the first two years

Complying with NPDES regulations

In order to comply with NPDES effluent regulations, power facilities have to keep their discharge within strict pH and TSS ranges. The inability to comply with the discharge limitations in their permit could result in hefty fines and potentially result in the inability to operate the generating units. Not being able to discharge could also result in damage to the large cooling units, which are costly to repair.

A safe and effective solution

NIPSCO is a company that is continually working to manage and improve their environmental impact. In their search to find a safe and effective solution for their algae problems, this led them to the LG Sonic MPC-Buoy. Together with LG Sonic, NIPSCO is taking steps to a cleaner energy future. LG Sonic ultrasound technology is chemical-free, proven to be safe for fish, plants and does not cause algae to release their toxins in the water. NIPSCO is one of six power plants where MPC-Buoys are being used to safely improve the water quality.

Safe discharge water

Since the installation of five MPC-Buoy systems in the spring of 2019, TSS levels remain at lower levels than 3ppm: "I don't think I have seen TSS higher than 3ppm and it usually is below 2ppm. Water is very clear" said Brian Snyder, Senior Chemical and Environmental Specialist. NIPSCO calculated that using LG Sonic technology, just by reducing chemicals alone, the ROI of MPC-Buoys would be less than 2 years.



"We were using both an algacide (quaternary amine) and a UV-blocker at all our cooling towers. By the end of the season we eliminated using the UV-blocker chemical and we reduced the algacide by 25%. In 2020, we were able to further reduce use of algacide to 33% of what we used before the installation [of MPC-Buoy]. You have a quality product [MPC-Buoy] that has potential to help many customers such as ourselves. We enjoy working with quality people."

Brian Snyder – Senior Chemical & Environmental Specialist, NIPSCO