

Customer Testimonial



Duolec® Vari-Purpose Gear Lubricant (1605)

Hopewell Regional Wastewater Treatment Plant – Hopewell, Va.

Lightnin® Gearboxes

- Saved \$56,000 annually by lowering electrical use from 135 to 120 amps for each of the 14 gearboxes
- Eliminated foaming and caused gearboxes to run cooler
- Increased oil change interval from six months to three years

Customer Profile

Hopewell Regional Wastewater Treatment Plant is rated for a flow of 50 million gallons per day, although on a normal day it processes 30 million gallons of influent. An estimated 15 percent of the daily flow comes from the residential population of 22,000 people. The remaining 85 percent comes from the industrial base, Fort Lee Military Installation and Prince George County. The plant has been in operation since 1978 and an LE customer since 1996.

Application

The Hopewell Regional WWTP uses surface mixers with 125-hp Lightnin® gearboxes. The surface mixers run 24 hours a day, seven days a week, stirring influent and returning activated sludge.

Challenge

While using a commercial-grade gear oil, Hopewell Regional WWTP maintenance staff had to change the oil every six months. They noticed foaming, degradation of additives, and units that were running hot. Bill Tiller, maintenance manager, was looking for a gear oil that would last longer and reduce overheating and wear.

LE Solution

The local LE lubrication consultant recommended LE's Duolec® Vari-Purpose Gear Lubricant (1605), a high-performance gear oil acceptable for use in any industrial gear or bearing application that requires a high thermal stability, extreme pressure lubricant. Duolec 1605 is fortified with a shear stable tackifier that promotes adhesion to metal surfaces during use. Regular oil sampling and filtration was also recommended.



Results

The first gearbox to be tested was one of 14 in use at Hopewell. It typically pulled 135 amps. After the conversion to Duolec 1605, the amperage immediately dropped to 120 amps. At 6 cents per kWh, Bill estimates \$4,000 in savings per year on each gearbox, with a total annual savings of \$56,000. After all the gearboxes were converted, they also stopped foaming and began running cooler. The oil change interval is approaching three years as opposed to six months.

"We've seen significant savings using LE products, along with oil sampling and filtration practices," Tiller said.

Other LE Products Used

- Almagard® Vari-Purpose Lubricant (3751)
- Almasol® High Temperature Lubricant (1251)
- Duolec® Vari-Purpose Gear Lubricant (1606)
- Monolec® Hydraulic Oil (6110)
- Multilec® Industrial Oil (6801 & 6804)
- Monolec® R&O Compressor / Turbine Oil (6405)
- Pyroshield® (5100)

Thank you to Bill Tiller, maintenance manager, and to Scotty Baird, LE lubrication consultant (pictured), for providing the information used in this report.





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