

APPLICATION

Turbines and exciter

LE Helps Power Generator Upgrade Lube System & Oil

CUSTOMER TESTIMONIAL

Montana Hydro-Electric Operation

CHALLENGE

Company wanted a smaller lubrication system and better turbine oil to meet its needs, including reducing its costs and environmental impact.

SOLUTION

Xport™ Automatic Lubrication System with Monolec® Turbine Oil (6463)

RESULTS

- Saved customer \$200,000 before system ever operated!
- Reduced amount of oil needed onsite
- Reduced environmental impact

Customer Profile

This Montana hydro-electric operation controls more than 11,000 megawatts of generating capacity in the United States, sells energy in key U.S. markets, and delivers electricity to about four million customers.

Challenge

In fall 2007 the organization replaced the automatic lube systems and oil being used to lubricate six turbines and one exciter at one of its facilities. The new systems were built with 350-gallon tanks, and had a 4,000-gallon reservoir, much larger than what the company had wanted. After installation of the new systems, the supervisor at the facility asked the local LE lubrication consultant to inspect them and provide feedback.

After the inspection, the LE consultant reported that there was no place for a breather, no oil sample port, no quick disconnects for depth media filtration, and no specifications for the oil to be used. A mount for the breather and quick disconnects were added; however, no other changes were made at that time due to time constraints at that facility.

Results

In 2008, the supervisor decided to work with LE on the proposed new lube systems. The cost was substantially less than the original lube system that had proved unsatisfactory. For example, the new system would have a maximum capacity of 150 gallons and the cost, including the new LE oil, was at least \$200,000 less than the original system.



Online purchase available for U.S. customers.

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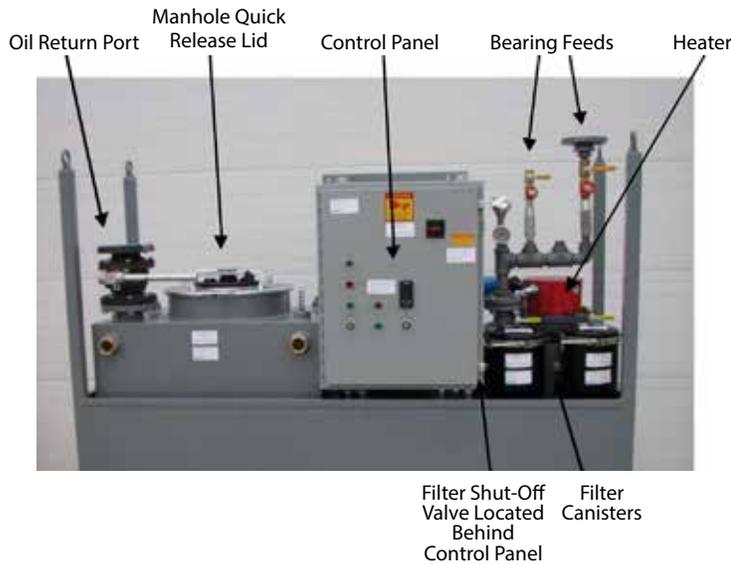
LE Solution

The LE consultant proposed a new lube system that would better meet the needs of the company. The goal was for smaller systems to reduce the amount of oil needed onsite, thus reducing lubricant costs and environmental impact. The proposed new system came standard with quick disconnects, multiple sample ports and depth media side stream filtration. In reducing the amount of oil in the system, there would be increased pressure and temperature, which necessitated the use of a superior turbine oil.

Knowing that the oil could see temperatures as high as 200°F (93°C) on the bearing, the LE consultant recommended Monolec® Turbine Oil (6463), which was designed specifically to combat the effects of high temperatures (oxidation), water, contaminants and heavy loads – all of which accelerate wear. Monolec 6463 ensures longer equipment and oil life.



Turbine Lube System



275-gallon tote and filter cart that was used to transfer the turbine oil into the turbine.

Exciter Lube System



New LE-designed lube system installed and running.