

6403 MONOLEC® R&O COMPRESSOR/TURBINE OIL

THUNDER BAY POWER , Alpena, Michigan

Turbines & Exciters • SIC 4911 Electrical Services

"Anyone who operates equipment will soon realize better lubrication, cooler operating temperatures, less friction, and longer oil life using LE products."

Maintenance Manager Rick Craner

CUSTOMER TESTIMONIAL

CUSTOMER PROFILE

Thunder Bay Power is a hydroelectric company located in Alpena, Michigan. They own and operate four hydroelectric dams and two water storage dams in the Thunder Bay River Basin. They have been an LE customer since 1991.

APPLICATION

Thunder Bay Power use nine turbines manufactured by G.E. Lufell, Wellman, Seavor and Morgan for power generation.

AREA OF INTEREST

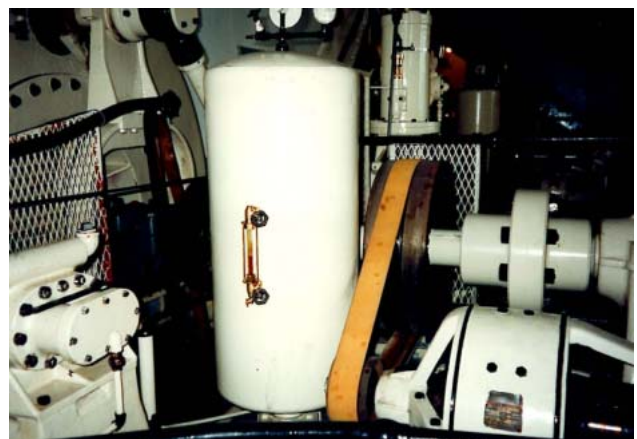
The turbines were giving inconsistent operation. The commercial grade oil was breaking down and they were experiencing some sludge and emulsification of the lubricant.

LE SOLUTION

LE Lubrication Consultant Greg Klang recommended 6403 MONOLEC® R&O Compressor/Turbine Oil. LE 6403 offers excellent oxidation resistance, separates readily from water, protects against corrosive wear and is extremely long lasting and non-foaming in service.



G.E. Turbines



Reservoir for LE 6403 to main turbine bearings

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CUSTOMER COST SAVINGS

Lubrication Engineers was used exclusively since 1991 at Thunder Bay Power. In 1998 they elected to test a commercial grade turbine oil.

A test was started with the other product installed in Unit 1, which runs intermittently. After eight years, LEAP was run on all units. Unit 3 runs continuously on 6403 and after ten years showed less than half the wear as the competitive product with eight years run time. All test units were converted back to 6403 and North American Hydro (purchased Thunder Bay Power in 2005) is now testing LE in other locations.

Maintenance Manager Rick Craner stated, ***“Anyone who operates equipment will***

soon realize better lubrication, cooler operating temperatures, less friction, and longer oil life using LE products.”

OTHER PRODUCTS USED

- 4024 QUINPLEX® Food Machinery Lubricant is used in the flow control gates.
- 4025 QUINPLEX® Food Machinery Lubricant is used on all heavily loaded bearings on screens and gates with high loads.
- 2300 L-X® Heavy-Duty Chemical Supplement and 8104 MONOLEC® Two-Cycle Engine Oil is used in all year equipment.
- Oil Safe® containers are used at all dam locations.



Flow control gates lubricated with LE 4024 QUINPLEX Food Machinery Lubricant

Lubrication Engineers would like to thank Maintenance Manager Rick Craner, Eastern Regional Manager Grace Phillips, and LE Lubrication Consultant Greg Klang for the information provided to prepare this report.



Greg Klang