

FEEDBACK



6802 MULTILEC® Industrial Oil
MAJOR COAL FIRED POWER PLANT, MONTANA
Atlas Copco Rotary Screw 200 hp Compressor
SIC 4911 Electric Service
Rev. 98-02-06 (LI70169)

LEADERS IN LUBRICANTS

CUSTOMER PROFILE

A Major Coal Fired Power Plant located in Montana provides electrical energy for several counties in and around Yellow Stone County, which encompasses Billings, Montana. This station is a supplement to the larger plants in Eastern Montana. They have been an LE customer for seven years.

APPLICATION

Two Atlas Copco rotary screw 200 hp water-cooled compressors provide the plant air. Unit A and Unit B run side by side, dividing time to provide all plant air. Each unit runs approximately 4000 hours per year.

AREA OF INTEREST

The power plant wanted to see if LE's ZAP Energy Saving Program could produce a reduction in amperage and electrical energy costs.

LE SOLUTION

LE's ZAP Energy Saving Program has been proven successful in all types of applications, including air compressors. In conjunction with LE's ZAP Program, LE's 6802 ISO 46 MULTILEC Industrial Oil was recommended to reduce amperage in the air compressors and prolong their effective operation life. MULTILEC is blended with the LE's proprietary additive, MONOLEC®. Based on anticipated savings, the power plant personnel agreed to a conversion on one of the units.

CUSTOMER COST SAVINGS

Prior to the conversion to LE's 6802 MULTILEC Industrial Oil, amperage readings were taken on the unit. The three-leg average showed an amperage reading of 208. After the conversion to LE's 6802, the average amperage on the three legs was reduced to 204.6; a reduction of 3.4 amps.

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LE PRODUCTS MANUFACTURED UNDER AN
ISO 9001 CERTIFIED QUALITY SYSTEM

The following formula is used to estimate the cost of a unit's electrical consumption.

$$\begin{aligned} &.Volts \times Amps \text{ Saved} \times 1.73^* = kW \\ &kW \times \text{Hours of Operation Per Year} = kWh \\ &kWh \times \text{Electrical Energy Cost} = \text{Annual Savings} \\ &^*\text{Conversion factor for a 3-Phase power source.} \end{aligned}$$

$$\begin{aligned} &.483 \times 3.4 \times 1.73 = 2.841 \\ &2.841 \times 4,000 = 11,364 \\ &11,364 \times \$0.025 = \$284.10 \end{aligned}$$

LE's 6802 MULTILEC® Industrial Oil saves 11,364 kWh/year or \$284.10 in annual electrical energy costs for one unit.

The Power Company assigned a value/cost of 2.5¢ per kWh as a point of reference to reflect potential electrical savings. However, they were just as interested in the kilowatt hours saved annually.

OTHER PRODUCTS USED

This plant has two sister coal plants using LE's 1250 and 1251 ALMASOL® High Temperature Lubricant on their soot blower bearings.

We wish to thank the personnel at the power plant and LE Representative Jim Pezoldt (pictured) for the information provided to prepare this report.

