

**5182 PYROSHIELD®**  
**AMERICAN CRYSTAL SUGAR, Moorhead, MN**  
 11 Foster Wheeler • SIC 9199 General government

**Consumption Reduced by 40%!**

**CUSTOMER PROFILE**

American Crystal Sugar Company located in Moorhead, Minnesota is a recognized industry leader in the processing of sugar beets. Keith Norgaard is the Maintenance Engineer.

**APPLICATION**

American Crystal Sugar Company maintains 11 Foster Wheeler ball mills. These mills are used in the processing and grinding of sugar beets, which are used in a variety of applications in the food processing industry.

**AREA OF INTEREST**

The previous Maintenance Engineer was concerned about the commercial grade gear compound, which was being applied to the large open gears on the ball mills. The bull gear measures 18 ft.; the pinion is 12 inches and is driven by a 120 hp General Electric motor. The commercial grade open gear lubricant was very messy and had a tendency to build up in the roots of the gears, which caused wear and misalignment.

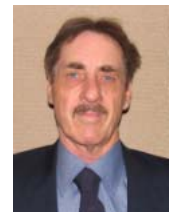
**LE SOLUTION**

In September of 1986, LE Representative Gage Koby recommended changing to LE's 5182 PYROSHIELD. This revolutionary lubricant is ideal for open gears. The lubricant is lead-free and provides excellent EP characteristics. It clings to gears tenaciously, thus eliminating excessive housekeeping to clean up the mess. Plus LE's 5182 will not build up in the gear teeth roots.

**CUSTOMER COST SAVINGS**

LE's 5182 PYROSHIELD dropped the pinion gear temperature. A reduction in temperature is a definite indicator of reduction in frictional heat; thus one can safely assume gear life has been extended. In addition, **consumption was reduced by 40%**. LE's 5182 PYROSHIELD resists washout and obviously provides better protection on startup. Don Volker stated, ***"This is the first year we did not have to rebuild the bull gears on the pulp mill. This is really unbelievable."***

We wish to thank Keith Norgaard, Maintenance Engineer and LE Representative Gage Koby (pictured) for providing the information to prepare this report.



Based on actual user experience. Individual results may vary. Product used not intended to supersede manufacturer's specifications.

**LUBRICATION ENGINEERS, Inc.**

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