Written by Dr. Lube, aka Ken Bannister
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Symptom:

"Dear Dr. Lube, we're looking for ways to reduce the significant purchase and disposal costs of lubricants used in our plant. Can you suggest some strategies for extending lubricant life?

Diagnosis:

If a lubricant is to lead a long, productive, healthy life, it must combat dirt, heat, moisture and apathy.

Heat directly affects the oxidative (useful) life of the lubricant, and for every 18 F degree temperature rise, the oil life expectancy is halved. Moisture attacks the base oil and prematurely strips out the additive package, causing sludge and oxidation. Dirt clogs filters, creates sludge and destroys machined surfaces. The prescription below can enhance your lube program, reduce operating and maintenance costs and improve your energy efficiency and carbon footprint.

Prescription:

- Work with a Lubricant Management Specialist and perform a Lubrication Operation Effectiveness Review (LOER) to establish improvement opportunities in the applying, purchasing, storing, transferring, dispensing/metering and disposing of your lubricants.
- Work with your supplier to implement a Lubricant Consolidation Program that reduces/optimizes the number of lubricant SKUs used in your plant.
- Use professional-grade, dedicated transfer and delivery equipment to combat cross-lubricant contamination and dirt contamination.
- Implement a condition-based approach to managing lubricant application (engineering your lubricant delivery, i.e., when and how much?) and changeout requirements (performing oil analysis, i.e., how often?)
- Implement a Machine Cleanliness Program to quickly identify leaks and moisture invasion, and to prevent dirt from contaminating the lubricant and forming a thermal blanket that raises lube temperature.
- Review your filtration methods and look for opportunities.
- Take a *5R* approach in tuning up your methods and systems to ensure that the *R*ight person applies the
R
ight amount of the
R
ight lubricant in the
R
ight place at the
R
ight time.

- Train and certify your maintenance personnel, engineers and lube technicians to recognize the impact and cost of poor lubrication practices. **MT**

Lube questions? Ask Dr. Lube, aka Ken Bannister, author of the book Lubrication for Industry *a nd the Lubrication section of the 28th edition*
Machinery's Handbook.
He's also a contributing editor for
Maintenance Technology
and
Lubrication Management & Technology.
E-mail:
doctorlube@atpnetwork.com.