Review lubrication habits to develop a consistent maintenance plan BY MIKE DECKERT & GABRIEL LOPEZ

he unfortunate reality for many companies is that their current in-plant lubrication program has not been proactively planned out and implemented. Instead, its development was a piecemeal process, developed over many years over the life of the company through the addition of new equipment, processes and personnel. As a result, a number of problems can occur:

- · Companies maintain a large inventory of various lubricants, each for an individual application or piece of equipment.
- Improper handling causes companies to lose in-stock product and supplies (lubricant, grease guns, oil cans, fittings, etc.).

- · New machine warranties can be tied to specific lubricants needing to be used.
- · New machines may have different automatic lubrication systems (ALS) already installed with may work on a completely different operating principle from those you previously use. For example, if you had a single-line parallel system, and you fitted it with a pump designed for a single-line progressive system, it wouldn't work and you would lose bearings. Also, different systems require training and different spare parts in inventory.
- · Lubrication schedules may be known by key personnel, but
 - there is no single location where all critical information is documented.
 - · There is no "ownership" of systems, equipment or processes due to a lack of training, which ultimately means it doesn't get done.



Reduced Reduced Lubrication **Programs** Labour Usage Reduced Reduced Lubricant Spoiled Usage Product Reduce Increase Lubricant Machine Reduce Cleanup

Rejected Product

Objectives

For the maintenance professional, all hope is not lost. A lubrication audit can help, whether it's conducted for an entire plant, certain locations or processes or just on specific machines.

STEP 1: Identify there is in fact a need for an audit and the desired results or objectives for the audit. These are some objectives by which an audit can be measured:

- · Consolidate purchases from multiple vendors: reduce transaction costs, shipping cost, storage locations.
- · Reduce the types/brands in stock: lower your MRO inventory investment, increase buyer power and reduce wastage and lubricant loss.
- · Reduce items in stock: less shelf space and house keeping required, easier handling of lubricants and movement of
- · Increase lubrication intervals: reduced opportunities for acci-

Life

dents, improved worker safety, increased production.

- Increase lubricant quality: prolonged intervals between relubrication, lower labour costs, less downtime.
- Identify areas where training is required: develop a more proactive form of maintenance, achieve long-term gain with increased production.

STEP 2: Develop a scope of work that the audit should include. To state the obvious, the scope of work is defined by the objectives or benefits you identified in Step 1.

- Review all your lubricants and identify where, when and on what pieces of equipment they are used.
- Examine the lubricant handling procedures and inventory control system already in place.
- Review key production machinery with existing ALS. If there is no ALS installed, review all the lube points and lube requirements for each piece of equipment.
- If there is an ALS installed, review all the related documentation, layout drawings and service manuals for the major components.
- Work with the key lubricators/personnel to review the processes, procedures and supporting documentation.
- Review all existing training guidelines, processes or requirements and any related documentation.
- Work with key lubricators to determine potential service schedules (based on OEM recommendations, production schedules, etc.), and time allocations required to complete the tasks.

Expected Results

Time will be required to consolidate all the information received and to develop a comprehensive plan. The larger the audit (plant vs. specific machine), the more time is generally required.

Depending upon the objectives and the scope of work, there are many possible results:

- Identify duplication of lubricants: possible standardization
- Learn about the hidden costs of lubrication: storage, handling, improper lubrication, wastage, rush deliveries
- Learn of potential safety and environmental issues: spillage, lube disposal
- Cost out the return on investment (ROI) of automating some of the critical production equipment, such as by lubricating

while the equipment is operating is a more efficient method with potential energy savings and increased production.

- Update manuals as required for your current lubrication methods, ALS and processes.
- Develop a customized plan of action, listing the opportunities by priority.

The ultimate result would be a formalized, central lubrication program that would address every aspect of a successful lubrication process, such as safety, environmental conditions, energy usage, labour, productivity etc., as illustrated in the graphic. This formal lubrication program would include training and would ensure consistency over the complete process, better access to information and increased ownership. **PEM**

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