



Technical Topic

Lubrication Program Management

A Key to Success

Regardless of industry type, maintaining a safe work place, complying with applicable laws and producing profitable products with maximum quality are all sound objectives for world-class company. But, what does it take to accomplish these objectives? To be successful, manufacturers like yourself positively, absolutely, require maximum equipment availability.

To make that happen you need a disciplined, world-class lubrication program. This can be achieved by establishing some guiding principles that include:

1. **Setting** the importance of a lubrication management program.
2. **Defining** the lubrication management program goals, and...
3. **Implementing** the tools required to achieve the lubrication management program goals.

The Importance of a Lubrication Management Program

Most people believe just maintaining or adding lubricant to the rotating equipment provides effective lubrication. However, by not implementing lubrication program management, the opportunity to optimize equipment reliability and maximize the return on your investment may be lost. Disciplined lubrication management is the foundation of a world-class lubrication program. The following chart illustrates the difference made in a plant's total cost of ownership once you've taken that step.

Remember that Implementing a disciplined lubrication management program comprises only one part of an overall equipment reliability improvement program. Sound preventive/predictive maintenance activities combined with good maintenance planning, scheduling, and execution are also key to delivering maintenance improvements.

Description	Before	After
Annual Lubrication Costs including Labor, Lubricant Costs and Supply Costs	\$1,055,000	\$845,000
Total Annual Maintenance Budget	\$24,000,000	\$22,000,000
Percent Annual Lubrication Costs Versus Total Maintenance Budget	4.4%	3.80%
Lost Annual Availability Due to Scheduled and Unscheduled Maintenance	6%	2%
Estimated Annual Profit Lost Due to Lost Equipment Reliability	\$3,500,000	\$1,200,000
Annual Maintenance Department Overtime	22%	14%
Annual Number of Equipment Failures Due to Poor Lubrication	18	2
Annual Volume of Lubricant Consumed (gallons)	62,000	15,000

Chart shows example numbers for demonstration purpose only.



Lubrication Management Program Goals

To properly define the goals of your lubrication management program, use the following list. Choose those goals that will best meet your company's needs:

- **Reduce** lubricant related failures
- Use the **fewest correct lubricants** and minimize waste
- Apply the lubricant in the correct manner, at the proper time and in the correct amounts
- Integrate the plant's preventive and predictive maintenance goals into the lubrication program.
- Continually investigate and implement methods to improve and achieve the above goals

Once you've defined the goals of your lubrication management program, next you need to be sure you have the proper tools that will enable you to achieve these goals.

Basic Tools Required for an Effective Program

No single program works for everyone. There are many different methods to achieve the goals of your lubrication management program. No matter what method you implement, to ensure success, you should use the following tools.

Leadership

First and foremost, lubrication needs to be a priority for maintenance managers. Many companies look at lubrication

on a price basis and strive for methods to minimize that cost. Unfortunately, when this happens, you may run the risk of forfeiting the true payback that can result from optimizing your lubrication program — improved equipment reliability AND decreased overall maintenance costs. Be sure to nominate a program champion — someone who will assume the responsibility, accountability and control for the program. Plan for continual improvement and measure your progress on a regular basis. A good program requires dedication, skill and accountability. The discipline to “stick with it” comes from strong leadership.

Standard Operating Procedures (SOPs)

Like other disciplines (operating or repairing machinery), SOPs can help guarantee repeatability and quality work. Also, SOPs assist in the training of lubricators and enable you to track and communicate equipment condition.

Teamwork and Communication

A world-class lubrication program must have a team that works and communicates with all members of the manufacturing group—operations, maintenance, purchasing, planning and engineering. The team champion is key in maintaining the communication and keeping the team focused.

Lubrication Scheduling, Planning, and Tracking Management Systems

To handle the quantity of data encountered (even for a small plant), an effective computerized system should be employed. Without the aid of computerized data management, important equipment trends may be missed and/or documentation of the lubrication program may be lacking.

Training

To continually improve, both program leader and lubricators must continually learn best lubrication practices, as well as learn new techniques in their specific discipline.

Metrics

Knowing the past performance and understanding the effects of program efforts enable you to make and evaluate lubrication program -related decisions. The following metrics are useful when tracking your program’s progress (other metrics not listed below may also prove useful).

- Total maintenance costs and percent spent on lubrication
- Percent of equipment scheduled and unscheduled downtime
- Number of lubricant related failures
- Percent of maintenance overtime labor
- Lubricant consumption
- Safety Incidents

Audits

In order to improve, you need to validate or audit your lubrication program. Whether performed internally or by a third party, the effort to benchmark and evaluate your lubrication program against other “best in class” operations will supply tremendous dividends. The science of lubrication audits can become very involved, however, and deserves a paper of its own.

Conclusion

Safety, compliance, and maximum quality manufacturing are sound objectives for a world-class company. A disciplined lubrication management program is what’s needed to achieve these objectives. And, when you set goals that put in place the tools you need to succeed, you are well on your way to establishing a world-class lubrication program.

Refs: “Lubrication Management: A Key to Success”

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