

Complete Guide to Starting a Lubrication Program

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For those who have been thrust into a position as a lube champion but don't know where to begin, this session will discuss how to kick-start your lubrication program to ensure future success. From quality lubricants and lubrication to metrics and analysis, contamination control, and people and training, discover all the key components that go into creating an effective lube program.

The first step in this long journey is training and education. There are several ways to entrench yourself in the world of machinery lubrication. Taking a course, reading books, subscribing to newsletters, and obtaining the proper certifications are a few good action items to focus on. Having a grasp on terminology and vocabulary will give you a great head start. Another thing gleaned from these resources is an idea of what “*best practice*” or the “*Optimum Reference State*” (ORS) really is for this machinery. At the point where you are armed with just enough knowledge to be dangerous, it's time to start formulating a plan.

This plan should be put in writing and it should contain a baseline of current practices. Think of it as an assessment where current practices are identified and critiqued against the new knowledge of ORS. Now that there is a current state and ORS identified, a gap can be acknowledged. Having knowledge of these gaps will help drive future decisions on where to spend time, money and energy.

The Assessment

Many people have the wrong perception of a lubrication assessment. It is not simply a list of machines accompanied by a lubricant recommendation. Rather, it is a comprehensive snapshot of the many facets that contribute to the program as a whole. The real benefit in the assessment comes from that fact that a holistic approach is often the only way to reap substantial benefits from program implementation. This holistic approach includes considerations for the following:

- Lube standards, consolidation, and procurement
- Lube storage and handling
- Oil sampling techniques
- Contamination control
- Training, skill development, and certification
- Lubricant analysis
- Lubrication/relubrication standards and best practices
- Program management
- Procedures and guidelines
- Program goals and metrics
- Safety and disposal guidelines and best practices
- Continuous improvement

The assessment should outline in detail for each of these areas;

- Current practice – a virtual snap shot of current operations. Including pictures in the assessment is a great way to portray current practices.
- Best practice or ORS – the prescribed state of machine configuration, operating conditions and maintenance activities required to achieve and sustain specific reliability objectives.
- Gap Analysis between current practice and best practice. (This later is the basis for action items)

Once the assessment has been completed in these key areas a much more broad valuation can be done. Take a step back and try to evaluate the strengths, weaknesses, opportunities, and threats.

Based on this assessment and the SWOT analysis a comprehensive plan of attack can be developed. The plan should focus on the tasks that are easiest, cheapest, and have the most impact. These tasks are often referred to as the “low hanging fruit”. Once the low hanging fruit is identified the next step is to design for best practice. The design phase is where that in depth training and knowledge becomes very useful.

As an example, If particle contamination is observed as being the low hanging fruit during the assessment, the design phase would outline the steps to take to mitigate the threat that particle contamination poses towards machine reliability. This would include ingress and exclusion practices such as breathers, seals, filters, etc.

The third phase of the process is to implement the design. In the example this would be the purchase and installation of the breathers, filters, seals, etc. This is where lots of companies get hung up in the program as they are not familiar with all the offerings in the market and tend to make poor choices during the hardware selection.

The fourth phase is to manage the change, continuously improve, and find a way to measure the outcome of the design. In our example this would be the use of oil analysis and particle counting to determine if the design and implementation succeeded.

The process is then re-benchmarked. New opportunities become the next lowest hanging fruit. It becomes a never ending cycle whereby the plant is always focused on the opportunities that provide the greatest return for the smallest investment in time, energy, and money all while monitoring past changes and reevaluating.

Starting a lubrication program is a daunting task. Most organizations (after getting a glimpse of the road ahead) drop the ball before the game ever starts. In almost every case the simple task of conducting a comprehensive lubrication survey can be enough to get that ball rolling and (assuming it's done correctly) ensure that it is rolling in the right direction.