



Why you should perform
a Lubrication Survey
at your plant facility.



TotalEnergies

CONTENTS



The confidence gained in knowing that your equipment is running smoothly and efficiently is crucial to the performance of any plant facility. Performing a Lubrication Survey certifies you are going in the right direction in regards to optimal lubricant selection, performance and safety. And a lubricant supplier is an excellent resource for conducting your Lubrication Survey.

- p.01 Defining a Lubrication Survey**
- p.02 Lubrication Survey Activities: Conversations to Conclusions**
- p.03 Breakdown of Lubrication Survey Activities**
- p.04 Lubrication Survey Benefits**
- p.05 Identifying the Right Supplier to Conduct the Survey**
- p.06 TotalEnergies Marketing USA, Inc.**

Defining a Lubrication Survey

Conducting a Lubrication Survey at your plant provides an excellent opportunity to identify all equipment lubrication points within a facility and what lubricants should be used. Information that is gathered from the survey is unique to that facility and produces highly applicable recommendations for establishing a proactive lubrication program. Implementing this type of program off of a Lubrication Survey leads to an increase in reliability, lower operating costs, decreased time between failures and less downtime in the facility. Lubrication Surveys are valuable across industries where there is rotating or heavy-duty equipment involved in facility operations. Companies that are experiencing difficulties with operations or are looking to improve their lubrication programs are typically the first to request a lubricant supplier to conduct a survey.

Identifying and analyzing the following practices allows a plant to focus on proactive procedures versus operating in a reactive manner. And it provides the lubricant supplier conducting the Lubrication Survey specific information for each piece of equipment that leads to educated recommendations based on OEM specifications.

- Lubricant storage practices
- Lubrication plant maintenance scheduling and compliance
- General safety within the plant
- Oil sampling practices and analysis

To achieve the greatest results, plant facility personnel must participate in the process alongside the lubricant supplier conducting the Lubrication Survey.

Continued reliability issues that lead to increased expenses and cost of goods, reactive operations within facility which decrease planning and scheduling of outages are at risk of occurring if a Lubrication Survey is not conducted.

Reasons for conducting a Lubrication Survey

- Equipment optimization
- Potential product consolidation
- Improved reliability
- Waste and over lubrication reduction
- Extended drain oils
- Correct lubricant products in equipment
- Increased operation efficiency



Lubrication Survey Activities: Conversations to Conclusions

The process for initiating a Lubrication Survey typically arises from discussions around increasing reliability, lowering costs by reducing downtime and making improvements to a facility's lubrication program.

These considerations often take place between plant personnel and their lubricant supplier.

Symptoms and conditions leading to a Lubrication Survey

High failure rates
Inexperienced plant staff
Frequent staff turnover
Desire for improved reliability

Once the decision has been made by the plant facility to perform a Lubrication Survey and a supplier has been selected, the timeframe for completion is determined by the size, quantity of equipment and availability of a facility. An average sized facility will normally take 3-5 days to capture all of the information and data points. In order to make comprehensive and effective recommendations, all areas of the facility which have lubrication points must be examined. Field Engineers from the selected lubricant supplier will manage the Lubrication Survey.

It is vital to the success of the Lubrication Survey that all facility personnel involved in the reliability of plant equipment participate in the process. Transparency into details like plant maintenance schedules, current lubrication in equipment, frequency of oil samplings, identifying equipment with high failure rate and describing areas of concern enhance the scope of the Lubrication Survey and increase the relevancy of future lubrication programs.

Relevant facility personnel include Plant Managers, VP of Operations, Maintenance Managers, Reliability Engineers, Supervisors and Mechanics.

After the Lubrication Survey has been completed onsite at the plant facility, it is expected for the conducting lubricant supplier to take one to two weeks to build out their final report. The final report is a deep dive into the recommendations, based on the survey findings, for establishing a proactive lubrication program that will lower operating costs, decrease time between equipment failures, provide a better understanding of plant equipment and reduce facility downtime.

Lubrication Surveys are not a one-time service provided to a plant facility. After the initial survey is performed, the conducting lubricant supplier maintains continuous contact with the facility to ensure corrective actions are performed accurately throughout implementation. Surveys are recommended every 3 to 5 years depending on equipment and personnel changes or if failures begin occurring due to unknown reasons.

Breakdown of Lubrication Survey Activities

Below is a breakdown of the activities that occur after the decision has been made between a plant facility and lubricant supplier to conduct a Lubrication Survey.

PRIOR TO LUBRICATION SURVEY

- Customer requests a Lubrication Survey is conducted at their plant facility
- Field Engineers are notified and scheduled
- An asset list from the facility is requested by the Field Engineers from the lubricant supplier with names and descriptions of all equipment
- Date and time for Lubrication Survey are determined based on plant personnel and Field Engineer availability
- Field Engineers review asset list and prepare for survey

DURING LUBRICATION SURVEY

- Upon arrival Field Engineers discuss potential areas of concern and opportunities which the facility will benefit the most
- The survey is begun by reviewing each piece of equipment in the facility
- Photographs are captured to document findings during the survey and for future reference
- Upon completion of full Lubrication Survey, up to 3-5 days, Field Engineers discuss with plant personnel initial findings and immediate options for improvement opportunities before departing the facility

POST LUBRICATION SURVEY

- Field Engineers review survey findings and compile final report
- Final report is reviewed internally with appropriate personnel from the conducting lubricant supplier
- Final report is presented to plant personnel inclusive of findings, opportunities and recommendations for establishing a proactive lubrication program
- Once recommended plan is adopted by the facility, continuous contact is maintained between lubricant supplier and customer to ensure corrective actions are performed accurately



Lubrication Survey Benefits

Numerous benefits can be realized from conducting a Lubrication Survey in your plant facility.

FINANCIAL

Financial gains through lower maintenance budgets and reduced lubricants purchased and wasted. These financial gains are measurable and substantial.

EFFICIENCY

Improved operational efficiency with greater reliability of equipment and fewer unplanned outages.

EQUIPMENT LIFE & PRODUCTIVITY

Equipment life increases with extended operations and improved MTBF (Mean Time Between Failures) and less downtime means increased operations leading to increased production.

Areas of potential value for customer

- Product consolidation
- Condition monitoring improvements
- Improved reliability
- Misapplication corrections
- Over lubricating and waste reduction
- Extended oil drains
- Improved storage and transfer practices of lubricants
- Improved sampling procedures
- Training of plant personnel

Identifying the Right Supplier to Conduct the Survey

Identifying the right supplier to conduct a Lubrication Survey of your plant facility positions them as a partner not just a provider. A qualified supplier performing a Lubrication Survey guarantees safety and an additional perspective into a facility's lubrication activity. The partnership between your facility and the conducting supplier is strengthened through the supplier's expertise and product knowledge and the facility's support and transparency.

When identifying the right supplier to perform a Lubrication Survey of your facility, conducting a Snapshot Survey can be very beneficial. Lubricant suppliers regularly require a commitment before performing a full Lubrication Survey of a facility if they are not an existing customer. A Snapshot Lubrication Survey demonstrates the service, quality level and expertise a supplier can provide.

Beyond conducting a Lubrication Survey, the right supplier partners with the facility to provide proactive training opportunities, plant maintenance optimization and implementation guidance to ensure continued success.



During a Snapshot Lubrication Survey a sampling of 3-5 assets are examined and subsequent recommendations are made by the conducting lubricant supplier. A Snapshot Survey is a great tool for validating the benefits of a comprehensive Lubrication Survey and building credibility in the lubricant supplier's capability.



Characteristics of the right lubricant supplier

Extensive industry and product knowledge

Certified experience with lubricants and plant surveys

Approach relationship with facility as a partnership

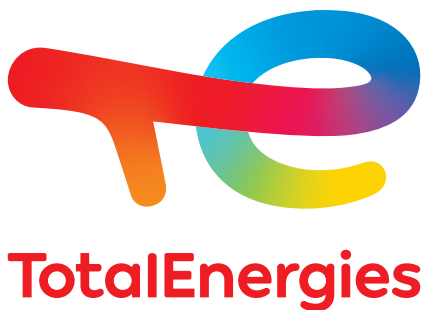
TotalEnergies Marketing USA, Inc.

TotalEnergies Marketing USA, Inc. is a part of the Americas Division for the Marketing Services branch of the TotalEnergies Group. TotalEnergies is the world's fourth largest energy company with 45 production sites worldwide where we manufacture lubricants, bitumen, special fuels, and additives. The Marketing & Services division of TotalEnergies develops and markets products primarily derived from crude oil, along with all of the associated services.

Field Engineers for TotalEnergies have extensive knowledge in all industries from Food, Steel, Paper, Refineries, Chemical, Phosphate, Pharmaceutical, Automotive to Heavy Duty. Across all industries, TotalEnergies' Field Engineers have a robust understanding of product applications with plant facilities.

With certifications in various arenas, including STLE, ICMLA and Vibration, TotalEnergies' Field Engineers have been conducting Lubrication Surveys and assisting customers to improve their reliability programs for over a decade.





TotalEnergies Marketing USA, Inc.
5 North Stiles Street
Linden, NJ 07036

 @totalenergies_us

 TotalEnergiesUSA

 @TotalEnergiesUS

 1-800-323-3198  services.us.totalenergies.com

 customerserviceusa@totalenergies.com

 usms-tsusa-totaltech@totalenergies.com