ARE YOUR LUBRICATION CONTRACTORS BRINGING CONTAMINATION WITH THEM?

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Whitepaper

SYNOPSIS

Industrial Lubrication Service Providers are hired to keep your lubricants meeting or exceeding OEM specifications. How contractors store and maintain their own equipment can impact your system. Are contractors meeting your cleanliness requirements with equipment brought to your site?

WHAT IS FOREIGN MATERIAL (FM)?

To put it simply, Foreign Material is any material that does not belong. For this discussion, we are going to focus on industrial lubricants and service contractors. Common Foreign Materials in this category can include anything from particulates, comingled products, lint, and moisture.

WHERE DOES FOREIGN MATERIAL COME FROM?

Foreign Material can come from many locations. The system itself can be open to atmosphere and the materials can enter via open vents, damaged or inadequate breathers. In this document, we are looking at the external sources when performing maintenance on your lube oil systems. Foreign materials are a large concern when performing service on your unit. There is no way to avoid opening a system up to perform inspections and maintenance. Potential for introducing FM increases with the degree of maintenance performed.

Contractors opening lines can drop materials in the pipes, cutting and welding can introduce metal shavings, leaving piping open to atmosphere can introduce moisture and dirt based on the environment. I.E. A Power Generation Facility in the New Mexico Desert. The environment is prone to dust storms in the afternoon and vast temperature swings from the afternoon to the middle of the night.

Additionally, contractors may be using rice paper (purge paper) when welding, rags and oil pads to keep oil from leaking on the ground, or just wrapping plastic or tape

Figure 1. Foreign Material Prevention

over the ends of pipes when disconnecting from the system.

WHAT CAN YOU DO?

When performing most maintenance on an industrial lubricant system it is recommended to verify cleanliness of your system. What does that entail? It depends on the extent of the work being performed. If you are performing inspections, the services can include:

- Pulling the oil
- Filtration of the product to meet or exceed OEM specification
- Hand cleaning the reservoir and refilling. (note: most lubricant providers recommend cleaning of lubricant and reservoir every 2-years at a minimum)

In more complex maintenance that includes breaking into the system OEM recommendations include performing a high velocity oil flush. This will not only remove any materials that may have been introduced during the maintenance but is used to clean built-up the foreign material that builds up in the pipes, coolers and reservoir from normal wear and tear.

Figure 2. Clean Stainless Flange Reducer

Figure 3. Rusty Flange Reducer

ARE THERE PITFALLS?

As with any service, the work performed is only as good as the contractor you use. What does that mean?

- Does your contractor understand Foreign Material Exclusion?
- Do they use proper techniques to drain equipment and hoses going from one site to another?
- How does the contractor maintain their equipment? Is it in good working order and presentable.
- Are the materials they bring in good condition? Are they carbon-steel or stainless? If carbon, are they rust free?
- How are the contractors transporting their hoses? Are they blinded and drained?
- Does the contractor perform a final inspection when performing reservoir cleaning to verify all material are removed? In extreme cases, do they inventory items in and out of reservoir?

TIPS

First and foremost, ask questions.

- What precautions does your company take for Foreign Material Exclusion?
- What type of product was in your system last?
- Will you need 100 gallons (example) to purge out your hoses and equipment?

Secondly, do not hesitate to inspect equipment upon arrival. Make sure the contractor understands FME is a priority to your site and include in the plan.

Hiring professional service providers should help you execute projects, not introduce more contamination and extending your outage.

At RIG, we pride ourselves in being solutions providers. Using proper FME techniques is one way we ensure we bring our technical expertise to our clients. Always verify proper FME processes are followed and you can save both time and money when executing lubrication related services.

Figure 4. Hose Transportation/Storage

Figure 5. Proper Hose Transportation/Storage

For more information on how RIG can help with your lubrication services please visit www.therigteam.com or call 1.800.770.4510.

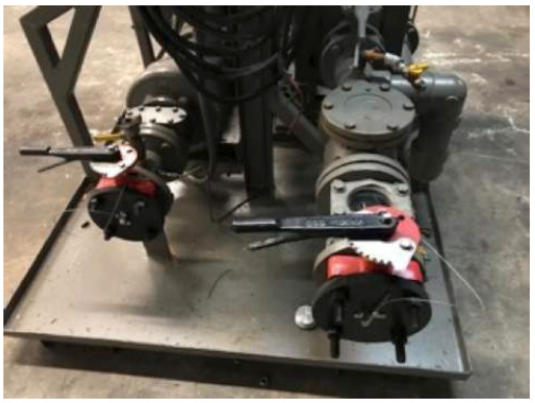

Figure 6. Proper Flanged Equipment Transportation/ Storage

Figure 7. Proper Camlock Equipment Transportation/ Storage

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