

# **MOV Diagnostics Program**

AOV and MOV preventive maintenance programs to increase overall health, performance and reliability.

# Why diagnostics?

Our Diagnostics Program can offer a unique approach to outage scope identification. Obtaining an accurate health report including details for the performance of both actuators and valves, can isolate which specific assets need to be removed and repaired. This approach can help with accurate budgeting as scope growth and discovery items are significantly reduced.

#### **Benefits include:**

- Non-Intrusive
- Fast, easy and accurate
- Improved plant efficiency through optimal valve performance
- Decreased unscheduled, unexpected and non-budgeted repairs by detecting problem valves prior to failure
- Lower repair costs by focusing only on valves that require maintenance
- Ensures proper parts are available and on-hand
- Predictable outage cost and performance

#### **Findings through MOV Diagnostics**

- Loose stem nut lock nuts
- · Broken stem nut lock nuts
- % of Stem Nut Wear
- Degraded and damaged actuator bearings
- Actuator limit switches not properly set
- Degraded motors

- Internal valve damage
- Bent valve stem
- Actuator gearbox degradation and damage
- Degraded & malfunctioning electrical components
- Torque & Thrust output lower/higher than designed
- Incorrect actuator sizing

#### **Tracking & Trending: Custom Reports**

Data taken from PM's, diagnostic results, repair reports and operational history is inputted into our central database and used for trending identification. Custom reports are generated to help identify root causes as well as problematic valves and common issues between multiple valves in various areas.

For more information, contact your Control Southern Account Manager, Valve Services Team Leader or (770) 495-3100 info@controlsouthern.com www.controlsouthern.com





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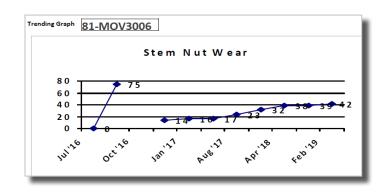
**Examples of Diagnostic Findings** 

## **Degraded Actuator Bearing**

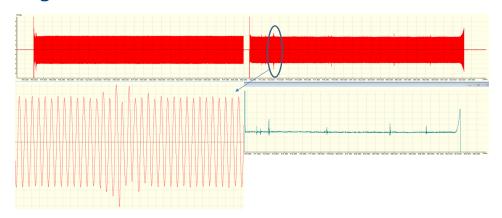


The graph above represents motor power trace. You can see as the valve is closing, the graph has multiple spikes throughout the stroke. The open side is smooth (as expected). This is an indication of upper drive sleeve bearing wear or damage.

#### **Stem Nut Wear**



### **Degraded Contactor**



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