

Tutorials (2 hr.) - The following programs included in price of conference registration

How Lubricant Cleanliness Affects Machine Life and Reliability

Speaker: Gregory Gaubert, Gaubert Oil

Tuesday, April 25 – 8-10 a.m./Location - Natchez

Particle contamination in lubricants is the No. 1 cause of lubricant-related equipment failure, according to industry experts at Noria Corporation. Machinery Lubrication magazine says particle contamination is the No. 1 cause of hydraulic system failures and estimates 82 percent of component wear is particle-induced, with abrasion wear accounting for two-thirds of that figure. Worse, particles in contaminated lubricants can stop equipment by damaging the individual components that keep equipment running. Money spent repairing the effects of particle contamination is money lost. This presentation will highlight the benefits and challenges of creating a focus on lubricant cleanliness.

Operators, An Under Utilized Resource

Speaker: Julien Le Bleu, Sage Technologies, LLC

Tuesday, April 25 – 8-10 a.m./Location - Levee

Every plant has operators. They are an untapped resource to improve reliability at a marginally low cost. The operator believes his job is to make good product, do it safely, and prevent environmental excursions. Management expects them to also detect problems early and do troubleshooting. The operators are not usually taught about things like pump curves and troubleshooting skills. This should be remedied.

No matter how good your pump rebuilding capabilities are nor how correctly the overhaul is done the operator, through lack of knowledge, can cause equipment to wreck. This 2 hour class will touch on items that can be taught to operators to improve their observation skills as well as how their centrifugal pumps produce pressure and flow. Also taught will be various items that can cause a pump to not produce desired flows and pressures that overhauling a pump will not fix. The pump curve will be explained in the simplest of terms so that troubleshooting can be demonstrated.

Technical Advancements for Re-rating or Replacing Rotating Equipment.

Speaker: David Bucci, Elliott Group

Tuesday, April 25 – 2-4 p.m./Location - Sam Clemens

This presentation will take into consideration aerodynamic design, mechanical limitations, machine life assessment, and physical space limitations both inside the casing of the machine and on the compressor deck when a plant operator is considering new operating conditions for compressors and/or steam turbines. It will help the operator determine whether it is more beneficial to rerate an existing machine, or replace it with a new drop-in machine. Additionally,

the difference in the time it takes to install a rerate and the time it takes to install a new drop-in machine will be evaluated with an eye toward minimizing the duration of a plant turnaround.

Compressors & Pumps Piping Systems - Vibration & Pulsation Basics, Rules of Thumb, & Case Studies

Speaker: Buddy Broerman III, SWRI

Tuesday, April 25 – 2-4 p.m./Location - Natchez

Basics of pulsation and vibration control will be explained while presenting various case studies. The case studies will include piping systems that are attached to compressors or pumps. Both reciprocating and centrifugal compressor piping systems will be discussed. There will be more discussion regarding reciprocating compressor piping systems than centrifugal systems due to the fact that recip compressors inherently generate relatively high-amplitude, low-frequency pulsations that can cause vibrations. Plunger/recip pump piping systems will also be discussed. Rules of thumb will be discussed as relevant during the case studies.

Environmentally Acceptable Lubricants -Uses and Applications

Speaker: Darren Lesinski, Total Specialties US, Inc.

Tuesday, April 25 – 2-4 p.m./Location - Levee

This presentation will be geared toward applications in refineries and chemical plants and will cover defining environmentally acceptable lubricants, targeted applications, and key governmental legislation. Key performance attributes of all available EAL technology will be discussed toward maximizing return on investment, (“ROI”) in suitable applications.

2 Stroke Cooper Bessemer Integral Compressor Roundtable

Speaker: Bill Seymour, GE Oil & Gas

Wednesday, April 26 – 9 – 11 a.m./Location - Levee

2 cycle Cooper Bessemer Engine & Compressor Sequence of Events

This session covers the basic function of the internal combustion of the Cooper Bessemer 2 Cycle Engines and their description. An overview of a basic Cooper Bessemer compressor and the sequence of events during operation. Basic maintenance on both engine & compressors can be discussed. Signs & indicators and Cause & Effects of operation will be discussed.

Basic Engine Systems of a 2 Cycle Cooper Bessemer: *The five main support engine systems will be explained. Fuel – Ignition – Lubrication – Combustion Air – Cooling Water Systems*

Question & Answer Session on Product Improvement: *A description of the newest engine & compressor upgrades. An open discussion of the latest upgrades and closing Remarks*

Field Balancing Tips and Tricks

Speaker: Dan Stilp, PRUFTECHNIK

Wednesday, April 26 – 9-11 a.m./Location - Bayou

Starting with a review of the fundamentals of field balancing, we will cover many of the different conditions that look like unbalance but have other causes. In addition we will cover the various tips and tricks one can use to get you through difficult field balancing problems such as resonance.

Corrosion, Erosion & Fouling Prevention and Protection

Speaker: Matthew Konek, Elliott Group

Wednesday, April 26 – 2 – 4 p.m./Location - Sam Clemens

Corrosion, erosion and fouling have long been problems for rotating equipment. Corrosion is caused by impurities such as hydrogen sulfide, which can be found in the process gas of compressors. These impurities can attack the components, even to the point of failure. Corrosion is often found in steam turbines too, due to impurities in the steam. Fouling occurs when a solid substance, usually polymers, adheres to the internal rotating and stationary surfaces of a compressor in contact with the process gas. It can block the flow path of the compressor, gradually reducing its efficiency and it can cause increased vibration levels in the rotating element. This presentation will explain what these problems are, how they arise, and how to solve them using specialized fluid injection systems and anti-fouling coatings.

Digital Solutions for Gas Compression

Speaker: Alison Mackey, GE Oil & Gas

Wednesday, April 26 – 2 - 4 p.m./Location - Bayou

Introduction to development of big data in oil & gas, remote monitoring & diagnostics and asset performance management, including optimization for equipment and operations. Target audience – operators, maintenance teams & engineering teams.

Microprocessor Surge Control

Speaker: Allen Gilson, Solar Turbines

Wednesday, April 26 – 2 – 4 p.m./Location - Natchez

This tutorial will cover the basics of surge control and how it protects the compressor. It will identify common issues, and how to distinguish a problem with the surge control as opposed to a problem elsewhere. Not only is surge in the compressor poorly understood, but the effects the surge control system has in other areas, such as process control, are also overlooked.

