CALL FOR PAPERS

Boilers, Pipes & Pumps Conference

Sydney, Australia – 24th & 25th November 2015

Are you an engineering professional working with boilers, pipes or pumps? We are looking for a number of presenters to submit an abstract and present their papers at this upcoming conference which has been developed to promote best practice and encourage development in this area.

This conference aims to be highly practical and will give delegates the opportunity to gain access to the most up-to-date information on the design, installation, commissioning, operation, maintenance, troubleshooting and management of three key interconnected and often challenging components - boilers, pipes and pumps. The conference is intended for engineers, technicians and consultants from a wide range of abilities and backgrounds.

1. Boilers – Environmental Control Systems, Plant Management and Operation

This area will cover small to large sized boilers with a focus on selection, safety, legal obligations and the nuts and bolts of boiler design. Using real life examples and case studies, we are in search of presentations that will focus on control systems, applying newly updated standards such as AS3814 to projects and cost, and energy saving opportunities.

There has been an increasing focus on whether the demands of modern day power plants are being met within the confines of environmental restrictions. This conference will seek to provide the knowledge necessary to tackle environment related issues such as plant emissions, and provide delegates with the latest boiler technologies aimed at ensuring environmental compliance. Further to the mechanical and environmental focus, the basic practices of instrumentation, controls systems and safety controls for boilers will be examined. We would also like to highlight the essential safety requirements for boilers, and the corresponding safety interlocks reviewed as practical solutions in accordance with the latest safety standards.

2. Pipes – Process Plant Layout and Piping Design

This part of the conference will cover the principles and concepts used in process plant layout and piping design. Process plants such as refineries and petrochemical plants are complex facilities consisting of equipment, piping systems, instruments, electrical systems, electronics, computers, and control systems. The design, engineering and construction of process plants involve a multidisciplinary team effort. Plant layout and design of piping systems constitute a major part of the design and engineering effort. The objective is to design safe and dependable processing facilities in a cost effective manner. There are few formal training programs on this topic, and therefore most of the required skills are acquired while on the job, reducing productivity and efficiency. We want delegates to have a clear understanding of the design and engineering principles used in plant layout and piping design.

Technology Training that Works

3. Pumps – Design, Maintenance and Reliability

This element of the conference has been added to offer delegates practical solutions for common problems such as seal and bearing failures, leakage, motor burn out, component wear, corrosion and cavitation. This is an opportunity for presenters to share their knowledge and expertise of pumps and/or compressors in applications such as design, operations, maintenance and management issues. Consideration will also be given to life-cycle costing of pumps and compressors (including maintenance, energy and disposal costs), as opposed to the more traditional capital cost. Delegates will be seeking advice and solutions on issues such as pump selection, correct speed calculation, alignment, mitigating inconsistent flow and blockages amongst other fundamental matters.

We are seeking papers that cover a selection of case studies and examples of real world working systems, and problem solving scenarios. **Sales or product based presentations will be not accepted**. When delegates leave this conference we want them to have an increased ability to work with and solve boiler, pipes and pumps problems simply, easily and with confidence.

Suggested Topics:

BOILERS:

- Types of package boilers and their applications
- Boiler, burner and furnace design and management systems
- Fuel combustion and steam generation processes
- Safety instrumented controls and the impact of IEC 61511
- Application of AS3814 standard and recent 2015 changes
- Boiler auxiliary plant and accessories
- Commissioning and start-up, operations and controls
- Safety equipment and emergency procedures
- Typical operational problems, key trouble indications/diagnosing failures
- Boiler troubleshooting techniques and procedures
- Planning and managing boiler maintenance, repairs and modifications
- Steam temperature control, pressure and boiler load controls
- Recovery boilers – heat recovery, super critical boilers, fluidized bed boilers
- Feedwater and drum level control – de-ionization, de-aeration, boiler water conditioning
- Protection against implosion and recovery boiler technology
- Combustion sources such as natural gas and hydrogen
- Piping layout – materials, stress calculations, insulation, welding and flange connections
- Cracking and corrosion of composite tubes, fouling of tube services, superheater corrosion
- Plant emissions, environmental control and regulatory requirements
- Emission controls and environmental constraints

PIPES:

- Plant layout fundamentals and procedures
- Fundamental principles of chemical process technology
- Terminology and symbols used in plant layout
- Equipment used in process plants
- Piping design and engineering principles
- Terminology, symbols and abbreviations in piping design
- Documents (bill of materials, equipment specifications etc.) and drawings (PFDs, P&IDs etc.) used in plant layout and piping design
- 3D modelling of plants and piping systems

PUMPS:

- Fundamentals of troubleshooting including dealing with inconsistent flow and blockages
- Troubleshooting pumps and compressor leakage and corrosion
- Centrifugal pump/compressor operation, maintenance and reliability
- Simplifying mechanical seal selection by the classification of chemicals
- Operating pump systems, with particular emphasis on piping system design, viscosity and non-Newtonian fluids and slurries
- New developments in pumps, energy saving and efficiency improvements
- Dry mechanical seals, seal and bearing troubleshooting
- Couplings, alignment and pipe strain including designed pre-load and isolators
- Pump vibration monitoring and analysis, pump curves and calculations
- Component wear, bearings, lubrication, repair techniques and motor burnout
- Pump/compressor controls and instrumentation
- Commissioning and performance measurement and site correction
- Slurry pumping and correct design
- Cavitation/recirculation, pulsation, vibration, reliability and maintenance issues
- Regulations and standards

All Submissions Welcome

IDC Technologies' conferences are emphatically not aimed at allowing vendors to "sell" their products, but rather on practical applications and solutions – probably the best way to showcase your technologies and engineering skills.

What is required from you?

- A **100 word abstract,** which outlines the topic you would like to present. This needs to be submitted electronically as soon as possible, to secure your place.

- Once your topic is approved, your **technical paper and PowerPoint slides** will be due six weeks prior to the event.

- Speaking slots are allocated on topic suitability and on a first come first served basis, so please register your interest today by emailing sarah.montgomery@idc-online.com

For further information on this event or to discuss sponsorship opportunities contact:

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