



EDITION 1 2024

Welcome to the AMETEK Process Instruments newsletter!

I am delighted to support the launch of this platform, which reflects our commitment to connect, inform, and inspire all our readers as we continue to develop AMETEK Process Instruments with our colleagues and partners around the world. Each edition will bring you insights into innovative projects, spotlight features on our exceptional team members, and updates on how the work we do positively impacts our customers. We welcome your feedback and engagement as you delve into our first newsletter, which is scheduled to be published three times per year.

Mike Hevey, DVP Business Manager

What's inside?

Within this month's newsletter, you can catch up on some of the news within our world.

- Decarbonizing steam methane reformers
- Measurement technology in Malaysia
- Events and articles
- Did you know? Aftermarket focus

APPLICATION NEWS

Decarbonizing steam methane reformers for DRI

The steel industry is a significant contributor to global carbon dioxide emissions, responsible for about 19% of worldwide industrial CO₂ emissions according to the World Economic Forum. This places the sector under tight scrutiny for its environmental impact. However, direct reduced iron (DRI) processes using electric furnace technologies have been shown to reduce CO₂ emissions by up to 33% compared to traditional blast furnace methods. This makes DRI a crucial part of the pathway to decarbonizing the iron and steel industry.

A combined solution

To achieve decarbonization and safety in the SMRs used in DRI processes, combustion optimization and tube wall temperature monitoring must be combined. Working together, these two approaches increase safety, reduce emissions, and enhance process efficiency. By carefully managing excess oxygen levels and monitoring tube wall temperature, operators can strike a balance between safety margins and fuel consumption, resulting in optimized combustion and reduced environmental impact.

Optimizing combustion

Monitoring excess oxygen levels and combustibles allows for precise control and optimization of the combustion process, which is critical for reducing emissions and increasing safety. Incomplete combustion can lead to the generation of combustibles such as carbon monoxide and hydrogen. To optimize combustion efficiency, excess oxygen levels need to be carefully controlled. By maintaining the appropriate excess air-to-fuel ratio, a safety margin is ensured while minimizing inefficiencies and emissions.



The WDG-V Combustion Analyzer

Our WDG-V flue gas analyzer is designed for safety and serviceability, providing accurate measurements of oxygen, combustibles, and methane for process control and safety in combustion applications. It offers safe, reliable operation, with continual diagnostic checks and proactive alarms. The analyzer provides an additional layer of safety in burner management systems in a versatile, completely field-serviceable solution designed for SIL-2.



EVENTS

Our expert team regularly attends events to share industry knowledge and information.

GAS Analysis Symposium

Airat Amerov presented “On-line process gas analyzer for measurement of hydrogen and water concentration in refinery hydrogen recycle gas” at Gas Analysis in Paris, France on January 31.



SulGas

Jochen Geiger presented “How to Optimize Sulfur Recovery Plant Emissions During Plant upset Conditions Using Information Provided by Process Instrumentation” at SulGas in Mumbai, India on February 2.



India Energy Week

In India, Anantha Kukkuvada showed the new 993X gas analyzer at India Energy Week in Goa, India on February 6-9.



EVENTS

Middle East Sulphur Conference

Along with a booth shared with AMETEK sister company CSI, Jochen Geiger presented, “Sulphur Recovery Plant Instrumentation – Today and Tomorrow: Maximizing Availability & Efficiency in Sulfur Recovery Plants” at MEScon, held in Abu Dhabi in May.



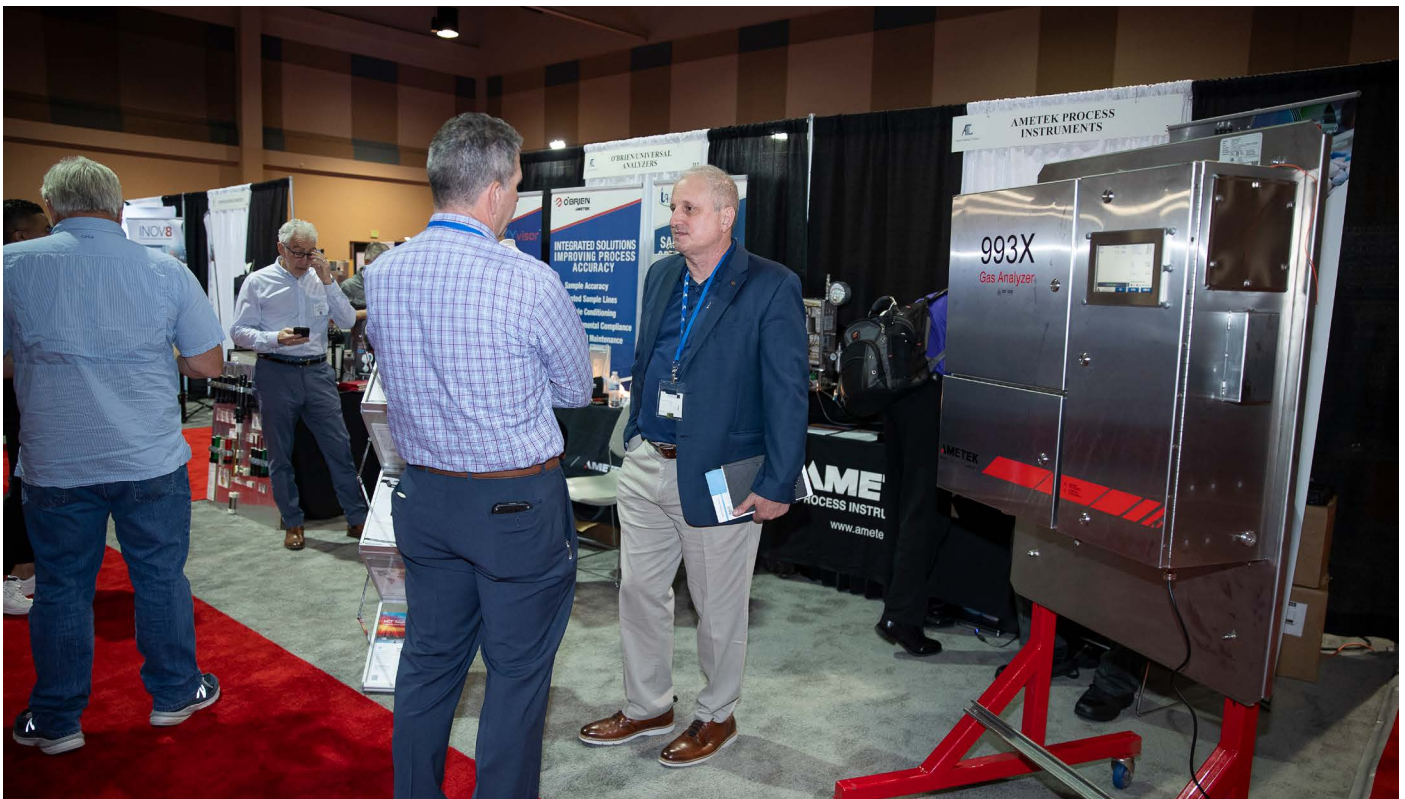
Carbon Capture Technology Expo

We teamed up with Chandler Engineering and Solartron ISA for the Carbon Capture Technology show in Houston, TX in June, where we featured the WDG-V combustion analyzer.



Analyzer Technology Conference

In April, our team was in Galveston, TX for ATC. Informational sessions were led by Bob Bear and John Kerney, while Marco Olivares conducted hands-on training on the 5100HD TDLAS analyzer.



SUCCESS STORY

Providing proven, reliable measurement technology for Malaysian onshore gas plant

The new onshore gas plant, capable of processing up to 800 million cubic feet of gas per day, is being built in Shell's Rosmari Marjoram development in Sarawak. This project comprises a remotely operated offshore platform and onshore gas plant, with infrastructure that includes one of the longest sour wet gas offshore pipelines in the world stretching more than 200 km. The order consists of tail gas analyzers for two Claus sulfur recovery units (SRUs) and feed gas, sales gas, and other H₂S gas analyzers for acid gas removal and the acid gas enrichment unit. It was won in part due to our proven reliable measurement technology and aftermarket support, plus our experience in this industry.



Wing Hong Lee, Regional Manager said: *“We have a reputation of being the leader in tail gas analysis for over 40 years with more than 1,100 installed analyzers and more than 100 million hours of run time. With over 50 years of experience in natural gas measurement technology, AMETEK Process Instruments provides the optimal analyzer solutions for H₂S, moisture and other natural gas measurements (acid gas removal unit and acid gas enrichment unit are two major natural gas production processes).”*

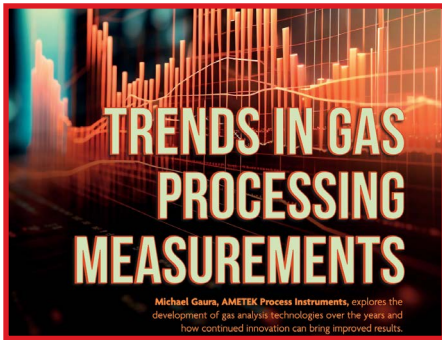
The project is pushing forward, and the customers are pleased with the specification and purchasing experience from AMETEK Process Instruments and dealing with the sales and engineering contacts knowledgeable in the offered technology and the applications.

Coordinated by AMETEK's regional sales manager, Wing Hong Lee, this project is supporting Malaysia's wider aim of unlocking sour gas fields to help maintain LNG exports. The Rosmari-Marjoram fields will help to deliver a secure and reliable supply of energy, responsibly and efficiently for the country, and we are pleased to be part of such an exciting development.

IN THE NEWS

Exploring gas analysis technologies over the years

Michael Gaura discusses how gas analysis technologies have evolved over the years and how continued innovation can bring improved results in this article in the July issue of Hydrocarbon Engineering. Turn to page 15 to read the article: <https://rb.gy/xfqa4r>



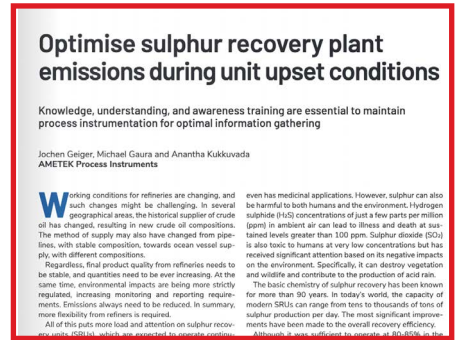
Dual-measurement solutions

In the May issue of Hydrocarbon Engineering, Airat Amerov details the importance of measuring and controlling both hydrogen and water concentrations in the catalytic reforming process. Turn to page 43 to read the article: <https://rb.gy/pc35ab>



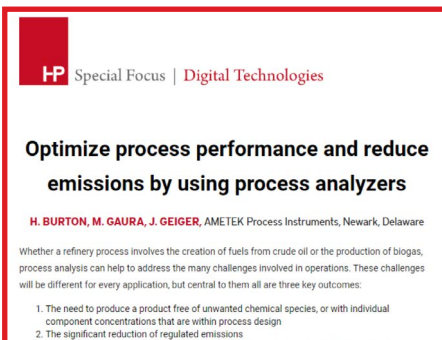
Optimize sulfur recovery plant emissions

Co-authored by Jochen Geiger, Michael Gaura, and Anantha Kukkvada, this article focuses on the knowledge, understanding, and awareness training that are essential to maintain process instrumentation for optimal information gathering. Read the article in the Q1 Gas Supplement of PTQ: <https://rb.gy/5ob96t>



Optimize process performance

Read how to optimize process performance and reduce emissions in this article by Harry Burton, Michael Gaura and Jochen Geiger, in the February issue of Hydrocarbon Processing: <https://t.ly/2MIVB>



Measurements for combustion processes

In the January issue of Hydrocarbon Processing, Tim Tallon discusses several measurements for combustion processes. Click to read the article: <https://ow.ly/jLOR50QqazS>



Decarbonisation through innovation

Our WDG-V combustion analyzer is highlighted in this feature about the use of flue gas analysis to identify a leaking burner during normal operation. Turn to page 77 of the November issue of Decarbonisation Technology to read more: https://t.ly/_uVmP



AFTERMARKET FOCUS

Did you know?

AMETEK Process Instruments offers a wide range of online resources designed to provide you with more information and support.

Our Aftermarket web page is a useful hub for many of these resources, bringing together our service offers to provide the knowledge and support you need long after your initial purchase.

Here, you can obtain technical support, order parts, download documents and software, request a field service visit, book training, and much more.

See what's available at www.ametekpi.com/contactus/aftermarket



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