



CRU Nitrogen + Syngas USA 2021

Virtual Conference & Exhibition

16-18 February 2021

Agenda

All agenda times are in US Central Standard Time (CST/GMT-6). Timings and agenda are provisional and subject to change

Tuesday 16 February

| | | |
|-------|---|--|
| | Plenary session: Market outlooks | |
| 09:00 | The CRU View: Nitrogen market outlook <i>Matthew Hodgkinson, Analyst, Nitrogen, CRU</i> | |
| 09:40 | Natural gas outlook <i>Arham Muhammad, Analyst, Nitrogen, CRU</i> | |
| | Track 1: Process Engineering | Track 2: Mechanical Engineering |
| 10:20 | Lowering CO2 emissions - Enhanced Annular Reforming Tube for Hydrogen (EARTH®) <i>Stéphane Walspurger, TechnipFMC; Dr. Stefan Gebert, Clariant</i> | 10:30 Water-tube process gas boilers: A new design at hands <i>Giovanni Manenti, Alfa Laval Olmi</i> |
| 11:00 | Design and economics of small-scale green ammonia technology <i>Paolo Brunengo, Director, Technology Solutions, KBR</i> | 11:10 US Implementation of floating head waste heat boiler – Replacing existing boilers <i>Mahesh Gandhi, KBR</i> |
| 11:50 | Plenary networking session | |
| 12:20 | CO shift section vulnerabilities and mitigation through design <i>Daragh Blennerhassett, Johnson Matthey</i> | 12:35 Replacement of High Pressure Piping from 316L Urea Grade into Safurex <i>Julio Padovani, Stamicarbon</i> |
| 13:00 | Basics of a plant steam balance <i>Steve Parrish, BD Energy Systems</i> | 13:15 Verifying leaks in lined equipment: Urea reactor liner leak case study <i>Scott Cisco, Kyle Spenst, Nutrien</i> |
| 13:55 | Benefits of advanced control to ammonia plant operations <i>Bill Poe, Aveva</i> | 14:10 Stress relaxation cracking: An analysis of recent failures <i>David Firth, Quest Integrity</i> |
| 14:35 | Driving plant performance through KBR digitalization solutions and analytics – KBR's Digital Sustainability Suite <i>Justin Eames, KBR</i> | 14:50 Flexible element couplings – Basics of operation <i>Joe Moreno, FlexElement</i> |
| 15:30 | Close of day one | |

Wednesday 17 February

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| | Track 1: Process Engineering | | Track 2: Mechanical Engineering |
|-------|--|-------|---|
| 09:15 | Methanol revamps – low-cost routes to methanol production <i>Esben Lauge Sorensen, Haldor Topsoe</i> | 09:45 | Replacing vintage equipment in ammonia, urea and nitric acid plants: A review of successful cases <i>Andrea Fini, Casale</i> |
| 09:55 | OPTIMIZE WITH INTELLIGENCE. Boost your methanol production efficiency with data-driven analytics <i>Sebastian Werner, Navigance GmbH</i> | 10:25 | An Overview of how SMR hydrogen pigtails' material selection, manufacturing process and forming impact reliability and service life <i>Karen Picker, Sandvik</i> |
| 10:50 | Layered loading of boiling water cooled methanol reactors: Combining high fidelity process modelling & engineering know-how for improved performance <i>Scott Osborne, Clariant</i> | 11:20 | Heat exchanger performance monitoring <i>Kevin Boudreaux, Chemtreat</i> |
| 11:30 | Introduction to low temperature shift catalyst <i>Chad Taylor, Haldor Topsoe</i> | | |
| 12:10 | Plenary networking session | | |
| 12:55 | ReforMax® 210 LDP Plus and ReforMax® 330 LDP Plus <i>Taylor Archer, Clariant</i> <i>Peyton Sanders, El Dorado Chemical</i> | 12:40 | "Seven Deadly Sins" of Reformer Furnace Design, Operation, and Maintenance <i>Daniel Barnett, BD Energy Systems</i> |
| 13:35 | Breaking frontiers with innovative developments in high temperature shift catalysis <i>David Polerstock, Haldor Topsoe</i> | 13:20 | Hydrogen plant reforming furnace tube failure results in fire outside the box <i>Ken Wohlgeschaffen, Chevron</i> |
| | | 14:00 | Secondary Reformer Revamp in Ammonia Plants with Improved Efficiency and the Operational Reliability <i>Kaushal Bhatt, KBR Technology</i> |
| 14:40 | Close of day two | | |

Thursday 18 February

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| | Track 1: Process Engineering | | Track 2: Technical Showcases |
|-------|---|-------|--|
| 09:00 | Rejuvenation of CO2 removal systems based on Hot-Potassium Carbonate solution <i>Luigi Tomasi, Giammarco-Vetrocoke</i> | 09:00 | Technical Showcase: Conval |
| | | 09:20 | Technical Showcase: Merrick & Company |
| 09:40 | Reducing emissions from Ammonium Nitrate operations <i>Graeme Cousland, Begg Cousland Envirotec Limited</i> | 09:40 | Technical Showcase: Tube Tech |
| | | 10:00 | Technical Showcase: Blasch Precision Ceramics |
| 10:45 | Water treatment operations media cleaning <i>Lawrence Broussard, Athlon a Halliburton Service</i> | 10:20 | Technical Showcase: Christy Catalytics |
| | | 10:40 | Technical Showcase: LESER |
| 11:25 | Identifying and managing pressure drop across the reforming section <i>Daragh Blennerhassett, Johnson Matthey</i> | 11:00 | Technical Showcase: KPI, Kinetics Process Improvements |
| | | 11:20 | Technical Showcase: Gulf Coast Bearing & Seal (GCBS) |
| 12:05 | Steam reformer Tube Wall Temperature (TWT) measurement theory and technology <i>James Cross, AMETEK Land</i> | 11:40 | Technical Showcase: Sprana |
| | | 12:00 | Technical Showcase: BHDT |

12:45

Close of conference