## 2020 4C HSE Conference Agenda Summary

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**WEDNESDAY FEBRUARY 19TH, 2020**

- Training Courses – 8:00am – 5:00pm

**THURSDAY FEBRUARY 20TH, 2020**

- Conference General Session & Keynote at 8:00am
- Subject Matter Breakout Sessions – Technical Presentations – 10:00am to 5:00pm

### Training Courses

- Consider flying in on Tuesday if you would like to attend these courses.

### Subject Matter Breakout Sessions – Technical Presentations – 10:00am to 5:00pm

- Air Permitting – Room 412 – Moderated by Tim Quarles – SLR International Corporation
- BWON – Room 402 – Moderated by Vapor Point, LLC, & Trinity Consultants
- CEMS – Room 404 – Moderated by M&C Tech Group NA
- Fence Line Monitoring – Room 415B – Moderated by Environmental Systems Corporation (ESC)
- Emerging Technologies – Room 417B
- Flare Instrumentation & Analyzers – Room 408 – Moderated by Extrel
- Flares for Regulatory Compliance – Room 406 – Moderated by Spectrum Environmental Solutions
- Health & Safety Training – Room 410 – Moderated by Board of Certified Safety Professionals
- LDAR – Room 400 – Moderated by Think Environmental and Earl Hassell – Chevron Phillips Chemical
- Legal – Room 416B
- PFAS – Room 414 – Moderated by Tiffany Thomas – EnsSafe
- Security & Emergency Management – Room 615 – Moderated by Department of Homeland Security
- Chemical Track – Room 416A – Moderated by Andy Shurtleff – Airgas, Inc
- Oil & Gas – Room 602 – LDAR, Fugitive Emission Monitoring and Compliance
- Oil & Gas – Room 616A – Emission Controls, Best Management Practices
- Oil & Gas – Room 616B – Air Permitting and Enforcement – Moderated by Chintan Mehta – P66
- Oil & Gas – Room 617 – Midstream Developments, Launching & Receiving – Moderated by Berry Mantoosh – ONEOK
- Oil & Gas – Room 619 – Emerging Technologies
- 6th Floor Exhibit Hall Stage – Oil & Gas General Session – Moderated by JD Holt
- 12:30 pm – 1:00 pm HSE Buy-in: How to Give it, How to Get it, & How to Keep it – Tom Hutchins – Kinder Morgan
- 1:00 pm – 1:30 pm Kinder Morgan Methane Reduction Activities: Where are We Now and Where Do We Go
- From Here – Karen Nielsen – Kinder Morgan
- 3:00 pm – 4:00 pm Industry Programs & Emissions Prognostication Panel
- Moderated by Roy Hartstein – RES Solutions
- 4:00 pm – 5:00 pm Leadership & Diversity Panel
- Moderated by Angela Zivkovich – Occidental Petroleum

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Wednesday February 19th, 2020

- **Training Courses – 8:00am – 5:00pm**
  Consider flying in on Tuesday if you would like to attend these courses.

- **(Multi-Day) LDAR Training - Beyond Basics and Underneath the Rules - Brian Whitley, EMSI**
  - 1:00 pm – Room 400

- **FAA Part 107 - Drone Certification - Uzkar Ibrahim, 4C Marketplace**
  - 1:00 pm – Room 412

- **Continuous Emissions Monitoring Systems (CEMS) Part I - Adam LaFever, Brian Fowler & Eric Swisher - Environmental Systems Corporation (ESC), & ALL4, Inc.**
  - 1:00 pm – Room 404

- **Flares Essentials: Flare Regulatory Compliance - Herman Holm, Derek Stuck & Kevin Lingard - Spectrum Environmental Solutions, LLC**
  - 8:00 am – Room 406

- **Flare Flow Mass and Volume Measurement – Dr. Lei Sui, Baker Hughes, Donn Williams, Optical Scientific, Meha Jha, Emerson Automation Solutions**
  - 1:00 pm – Room 406

- **LDAR Auditing - Graham "Buzz" Harris & Mark Kelsey, Tricord Consulting**
  - 8:00 am – Room 408

- **Mass Spec Gas Analyzers: Operation and Maintenance - Chuck DeCarlo, Jim Brenner & Haley Gabor - Extrel**
  - 1:00 pm – Room 408

- **Stack Testing Essentials - Paula Metz & Jordan Laster - Alliance Source Testing**
  - 8:00 am – Room 410

- **Practical Dispersion Modeling - Robert Opiela, Naviknow**
  - 1:00 pm – Room 410

- **Liquids Fuels Terminals – Basics of Environmental Permitting and Compliance - Al Reich, Corey Mead, and Tony Shoberg, Barr Engineering**
  - 8:00 am – Room 412

- **Intermediate Air Permitting - Johnny Vermillion, PE, Shagun Bhat, PhD, and Robert Osborn - Spirit Environmental, LLC**
  - 1:00 pm – Room 412

- **BWON Fundamentals - Steve Probst - 4C Marketplace**
  - 8:00 am – Room 416

- **Operations Troubleshooting of Biological Treatment in Refineries and Petro Chemical Facilities - D'Ann Wilkins & Todd Lusk - SLR Consulting**
  - 1:00 pm – Room 416

- **Quantitative Optical Gas Imaging - Yousheng Zeng & Jon Morris, Providence Photonics**
  - 1:00 pm – Room 414
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- Optical Fenceline Monitoring - George Lipinski, Brian Cochran, Steve Hall, & Troy Boley - Spectrum Environmental Solutions, LLC
  - 1:00 pm – Room 417B
- Spill Prevention, Control & Countermeasures

Thursday February 20th, 2020

Conference General Session & Keynote at 8:00am
- 4th Floor – 10:30am to 5:00pm – Refining & Petrochemical Subject Matter Breakout Sessions
- 6th Floor – 10:00am to 11:30am – Oil & Gas Breakout Presentations
- 6th Floor – 12:30pm to 5:00pm – Oil and Gas General Session

Thursday Training Classes
- Advanced Stack Testing - Paula Metz & Jordan Laster - Alliance Source Testing – 4 Hour
  - 1:00 pm – Room 415A
- Tiny Habits® and Behavior Design to Transform the EH&S Workspace - Shirley Rivera - Resource Catalysts (R|CAT) – 1 Hour
  - 10:30 am – Room 410 – Health & Safety Training
- How to survive an OSHA Inspection: From a former OSHA CSHO Perspective - Ric Hartung - Process & Safety Solutions LLC – 1 Hour
  - 3:00 pm – Room 410 – Health & Safety Training

Subject Matter Breakout Sessions – Technical Presentations – 10:00am to 5:00pm
- Air Permitting – Room 412 – Moderated by Tim Quarles – SLR International Corporation
  - 10:30 am – The Brave New World of Renewable Fuels Projects – A Permitting Perspective - Bart Leininger, P.E. - Ashworth Leininger Group (ALG)
  - 11:00 am – Upcoming MACT Residual Risk and Technology Reviews – What to Expect and Lessons Learned from the Refinery Sector Rule (RSR) - Rose E. Waypa - Barr Engineering Company
  - 11:30 am – Calculating Project Increases - Johnny Vermillion - Spirit Environmental, LLC
  - 12:00 pm – Lunch Break in the Exhibit Hall
  - 1:00 pm – Texas Ozone Nonattainment Area Reclassification & Potential Implications on Your Operations - Kristin Gordon - ALL4 Inc.
  - 1:30 pm – Air Quality Tools for the 21st Century - Robert Opiela - NaviKnow LLC
  - 2:00 pm – Break to Enjoy the Exhibit Hall Refreshments
  - 2:30 pm – Photochemical Modeling for Ozone Inter-Precursor Trading - Qi Zhang - GHD Services
  - 3:00 pm – New Building Downwash Options in AERMOD - Sergio Guerra - GHD Services
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- **Best Management Practices – Room 417A – Moderated by John Bacon – TRC**
  - 11:00 am – Integrating Speciation Data For Chemical Plants and Refineries - John Beath - John Beath Environmental, LLC
  - 11:30 am – Barr will demonstrate its free Microsoft Excel spreadsheet tools for storage tank emissions, LDAR program review and compliance reporting, and MACT CC flare NHVcz standards - Corey Mead - Barr Engineering Company
  - 12:00 pm – How Do You Feel About Storing Your Emissions Data in the Cloud? - Matthew Radigan - REGS, LLC
  - 12:30 pm – Lunch Break in the Exhibit Hall
  - 1:30 pm – I got 99 problems… now what? Best Practices for Addressing Audit Findings - Courtney Edge - Trinity Consultants
  - 2:00 pm – Utilizing Vapor Lock Technology for Tank Degassing and Tank Vent Management versus Thermal Destruction or Activated Carbon - Jim Woodard & Jeff St. Amant - Vapor Point, LLC
  - 2:30 pm – Conforming to ASTM-D7036: Self-Declaration vs. Third-Party Accreditation - David Fricker - A2LA
  - 3:00 pm – Break to Enjoy the Exhibit Hall Refreshments
  - 3:30 pm – Utilizing Temporary Control Systems to Meet Recent EPA MACT Subpart CC and to Eliminate Flare Gas Recovery Bottlenecks During Maintenance and Turn-Around Activities - Jim Woodard & Sean Kirkpatrick - Vapor Point, LLC
  - 4:00 pm – Boiler and Process Heater Tuning as a Best Management Practice - John Bacon - TRC Companies, Inc.

- **BWON – Room 402 – Moderated by Vapor Point, LLC. & Trinity Consultants**
  - 10:30 am – On-Going BWON Compliance Concerns - Ken Garing - Ken Garing & Associates
  - 11:00 am – A Wastewater Solution for an Air Pollution Problem - Todd Lusk - SLR Consulting
  - 11:30 am – BWON Auditing - Bart Leininger, P.E. - Ashworth Leininger Group (ALG)
  - 12:00 pm – BWON Masterclass - Steve Probst - 4C Marketplace
  - 12:30 pm – Lunch Break in the Exhibit Hall
  - 1:30 pm – BWON Compliance Sampling - Chad Vogele - Think Environmental
  - 2:00 pm – Downstream Confirmation of Benzene Loading - Kati Petersburg - Trinity Consultants
  - 2:30 pm – Break to Enjoy the Exhibit Hall Refreshments
  - 3:00 pm – VAPORLOCKTM SCRUBBER TECHNOLOGY REDUCING CARBON USAGE FOR BWON COMPLIANCE - Jim Woodard & Jeff St. Amant - Vapor Point, LLC
  - 3:30 pm – BWON Compliance Post Consent Decree Era - Kati Petersburg - Trinity Consultants
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- **CEMS – Room 404 – Moderated by M&C Tech Group NA**
  - 10:30 am – Live Demo: Improving Sample Probe, Chiller and Filter Performance - Donny Klotz - M&C Tech Group N.A.
  - 11:00 am – Common CEMS RATA Failures and Risks - Paula Metz - Alliance Source Testing
  - 11:30 am – Emerging Analyzer Technologies for CEMS - Ty Smith - CEMTEK KVB-Enertec
  - 12:00 pm – Lunch Break in the Exhibit Hall
  - 1:00 pm – Reporting of Component and System IDs During Missing Data Periods - Brian Fowler - Environmental Systems Corporation (ESC)
  - 1:30 pm – Common CEMS Program Audit Findings - Eric Wiley - VIM Technologies
  - 2:00 pm – Break to Enjoy the Exhibit Hall Refreshments
  - 2:30 pm – The implementation of PS-9 as it applies to both gas chromatograph (GC) and mass spectrometer (MS) - Adam LaFever & Eric Swisher - Environmental Systems Corporation (ESC) & ALL4, Inc.
  - 3:00 pm – Particulate Testing: Modern Solutions to Modern Limits. - Justin Sullivan - Alliance Source Testing
  - 3:30 pm – Comprehensive CEMS Stack 102: Process Optimization - Dean Kotecki – Envea

- **Fenceline Monitoring – Room 415B – Moderated by Environmental Systems Corporation (ESC)**
  - 10:30 am – Implementation of California's Refinery Fenceline Monitoring Rule - George Lipinski and Brian Cochran - Spectrum Environmental Solutions, LLC
  - 11:00 am – Autonomous Real-Time VOC Analyzer & Passive Fenceline Tubes – Data Comparison of New Technology to Method 325 - Jason Robles - Camsco
  - 11:30 am – Avoiding Under-Reporting and Over-Reporting of Fenceline Plant Emissions - James Shinkle - Optical Scientific, Inc. (OSi)
  - 12:00 pm – Lunch Break in the Exhibit Hall
  - 1:00 pm – California Rule 1180 Fence Line Monitoring Regulation: Lessons Learned and planning for Regulatory Compliance - Gilad Shpitzer - Atmosfir Optics Ltd.
  - 1:30 pm – New and Emerging Fenceline Monitoring Technologies: Current vs Emerging Technology Strategies for Sampling and Quantitation of HRVOC and OHAP in Ambient and Emission Sources - Peter Zemek, Ph.D. - Montrose Environmental Group, Inc.
  - 2:00 pm – SPOD: Continuous VOC Monitoring for Targeted Grab Sample Acquisition - Jacob Melby - SENSIT Technologies
  - 2:30 pm – Break to Enjoy the Exhibit Hall Refreshments
  - 3:00 pm – Portable GC for Fenceline Monitoring - Chris Schepcoff – SGS
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- Emerging Technologies – Room 417B –
  - 10:30 am – How Digital Transformation Can Impact Compliance for Environmental and Safety Regulation – Marcelo Carugo, Marcio Donnangelo & Steve Probst - Emerson Automation Solutions & 4C Marketplace
  - 11:00 am – Advanced Technology for Real Time Fence-Line Perimeter Monitoring. - Gilad Shpitzer - Atmosfir Optics Ltd.
  - 12:00 pm – Lunch Break in the Exhibit Hall
  - 1:00 pm – Safety Showers and Location Awareness – Improving Safety with Wireless Monitoring - Marcio Donnangelo - Emerson Automation Solutions
  - 1:30 pm – New Absorption Technology for VOC Capture - Ray Ozdemir & Jeff St. Amant - Framergy Inc. & Vapor Point, LLC
  - 2:00 pm – Digital Camera Visible Emissions Method (Alternative Method 082) in lieu of Method 9 for Visible Emissions - Shawn Dolan - Virtual Technology LLC
  - 2:30 pm – A New Way to Measure Toxic Gases with Wireless and IIoT - Josh Hernandez - Emerson Automation Solutions
  - 3:00 pm – Break to Enjoy the Exhibit Hall Refreshments
  - 3:30 pm – Using Smart Meter Verification to Digitally Transform Environmental Reporting - Meha Jha - Emerson Automation Solutions
  - 4:00 pm – Large Area Fugitive Emission Monitoring in All Conditions - Laser Dispersion Spectroscopy - Dr. Sophie Purser - MIRICO
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- **Flare Instrumentation & Analyzers – Room 408 – Moderated by Extrel**
  - 10:30 am – Flare Instrumentation – Minimum “Expectations” - Derek Stuck - Spectrum Environmental Solutions, LLC
  - 11:00 am – RSR LESSONS LEARNED – CALIBRATION GASES - Andy Shurtleff - Airgas, Inc.
  - 11:30 am – Meeting Flare Emissions Regulations with BTU Measurement - Tom Watson - AMETEK Process Instruments
  - 12:00 pm – Optical Flow Sensors for Environmental Compliance and Process Control - Donn Williams - Optical Scientific, Inc. (OSi)
  - 12:30 pm – Lunch Break in the Exhibit Hall
  - 1:30 pm – Flare System Control and Optimization at Refineries and Chemical Plants - Dr. Lei Sui - Baker Hughes
  - 2:00 pm – Measurement & Speciation Using Mass Spectroscopy Flare Gas Composition - Chuck de Carlo - Extrel Core Mass Spectrometers
  - 2:30 pm – Flare BTU Analysis - Robert Paddison - ThermoFisher Scientific
  - 3:00 pm – Break to Enjoy the Exhibit Hall Refreshments
  - 3:30 pm – Closed Loop Flare Operations and Remote Measurement of Flare Gas Flow Rate - Yousheng Zeng - Providence Photonics, LLC
  - 4:00 pm – 5:00pm “Hot Mic” Flare Panel – Moderated by Extrel and Spectrum Environmental Solutions

- **Flares for Regulatory Compliance – Room 406 – Moderated by Spectrum Environmental Solutions**
  - 10:30 am – New Flare Requirements within the Ethylene, MON, and OLD MACTs - Herman Holm - Spectrum Environmental Solutions, LLC
  - 11:00 am – ELIMINATING H2S & SO2 MAINTENANCE RELATED EMISSIONS AT SRU SULFUR SUMPS, COKE AND OTHER SULFUR HANDLING UNITS OF REFINERIES - Jim Woodard & Sean Kirkpatrick - Vapor Point, LLC
  - 11:30 am – Natural Draft Low-Emissions Combustors - TBD - Ashcor & Clearsign Combustion
  - 12:00 pm – “4G” Combustion Technology for Flares - Jason Voskuhl & Kurt Kraus - Honeywell UOP Callidus
  - 12:30 pm – Lunch Break in the Exhibit Hall
  - 1:30 pm – Satisfying RSR at Turndown - Clayton Francis - Zeeco, Inc.
  - 2:00 pm – Ultra-Low Steam Consumption, High Capacity Smokeless Flare - Clayton Francis - Zeeco, Inc.
  - 2:30 pm – Break to Enjoy the Exhibit Hall Refreshments
  - 3:00 pm – Realtime PRV Leak Detection and Process Data Analysis for Environmental, Occupational and Process Safety Management - Marcelo Dultra and Marcio Donnangelo - Emerson Automation Solutions
  - 3:30 pm – Looking Down the Road: The Future of Ground Flares and AMELs - Troy Boley - Spectrum Environmental Solutions, LLC
  - 4:00 pm – 5:00pm “Hot Mic” Flare Panel – Moderated by Extrel and Spectrum Environmental Solutions
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- **Health & Safety Training – Room 410 – Moderated by Board of Certified Safety Professionals**
  - 10:30 am – 11:30 am – *(1 Hour Training)* Tiny Habits® and Behavior Design to Transform the EH&S Workspace - Shirley Rivera - Resource Catalysts (R|CAT)
  - 11:30 am – Break for Lunch in the Exhibit Hall
  - 12:30 pm – 1:30 pm – Safety's Competitive Advantage and the Future of the Safety, Health, and Environmental Profession - Colin Brown - Board of Certified Safety Professionals
  - 2:30 pm – Break to Enjoy the Exhibit Hall Refreshments
  - 3:00 pm – 5:00 pm – *(2 Hour Training)* How to survive an OSHA Inspection: From a former OSHA CSHO Perspective - Ric Hartung - Process & Safety Solutions LLC

- **LDAR – Room 400 – Moderated by Think Environmental and Earl Hassell – Chevron Phillips Chemical**
  - 10:30 am – The Evolution of Optical Gas Imaging - Craig O’Neill & Rob Raymer - FLIR Systems
  - 11:00 am – Advantages of Hot-Filter Cooled OGI technology for Leak Detection and Quantification - Ram Hashmonay - Opgal
  - 11:30 am – Turnaround LDAR Best Management Practices - Jeff Diehl - Think Environmental
  - 12:00 pm – Alternative Work Practice: How Revisions May Affect Refineries - Karen Marsh - Environmental Protection Agency
  - 12:30 pm – Lunch Break in the Exhibit Hall
  - 1:30 pm – The Forecast for Your LDAR Program Looks Cloudy, and Why That’s a Good Thing - Christopher Tucker - InspectionLogic Corporation
  - 2:00 pm – The Transformation of LDAR: Predictive Leak Management Software - Brian Whitley - Emission Monitoring Service, Inc. (EMSI)
  - 2:30 pm – Leveraging Digital Twin technology to reduce inspection-related defects and optimize your LDAR program. - Boun Sananikone & David Tullos - Bureau Veritas
  - 3:00 pm – Break to Enjoy the Exhibit Hall Refreshments
  - 3:30 pm – Opening up the opportunities for performance verification and reliability enhancement of valves. - Dave Anderson - Score Valves
  - 4:00 pm – A New Era of LDAR in Texas: Industries Can Now Use OGI in Lieu of Method 21 to Meet “28” Series LDAR Requirements - Brandon Mogan - Tora Consulting, LLC
  - 4:30 pm – Enhanced LDAR Training; An Unconventional Approach to Training LDAR Technicians - Todd Morrison - Insight Environmental, Inc.
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- **Legal – Room 416B**
  - 10:30 am – It's Not Dead, It's Mostly Dead - CD Termination - Suzanne Murray - Haynes and Boone, LLP
  - 11:00 am – Are You Ready? Contingency Planning for the RMP Amendments and Litigation - Justin Savage & Simone Jones - Sidley Austin, LLP
  - 11:30 am – Downstream Environmental Enforcement Updates - Patrick Traylor - Vinson & Elkins
  - 12:00 pm – Lunch Break in the Exhibit Hall
  - 1:00 pm – Benzene Fence-line Emissions at Refineries: What Legal Standard Applies? - Simone Jones and Marshall Morales - Vinson & Elkins
  - 1:30 pm – Federal, State and Local Enforcement - James Smith - Crain, Caton & James
  - 2:00 pm – Flare CD Updates – Troy Boley – Spectrum Environmental Solutions, LLC

- **PFAS – Room 414 – Moderated by Tiffany Thomas - EnSafe**
  - 10:30 am – Growing Regulatory Concerns for $1,000 – Man–made Chemicals widely used in Fire-Fighting Foam: “What are PFAS?” - Tiffany Thomas - EnSafe
  - 11:00 am – Preventing Contamination During Field Sampling - Dennis Leeke - Pace Analytical
  - 11:30 am – Lab Test Methodology for PFAS Analysis - Martha Maier - Vista Analytical Laboratory
  - 12:00 pm – Lunch Break in the Exhibit Hall
  - 12:30 pm – Selecting the Most Cost-Effective Technologies for PFAS Treatment - Steve Woodard - ECT2
  - 1:30 pm – You've Got PFAS. How to Prepare, Dispose and Respond. - Ward Swanson - Barr Engineering
  - 2:00 pm – Break to Enjoy Exhibit Hall Refreshments
  - 2:30 pm – Innovative Sampling and Analysis Techniques for Stack Sampling of PFAS Compounds in Air Emissions from Stationary Sources - Wesley Fritz - Weston Solutions, Inc.
  - 3:00 pm – A Practitioner’s Guide to PFAS – Lessons learned and best practices to ensure project efficiency and desired outcomes - Tiffany Thomas - EnSafe
  - 3:30 pm – New Technology with the Potential to eliminate PFAs and PFOAs from water sources - Ray Ozdemir & Jeff St. Amant - Framergy Inc. & Vapor Point, LLC
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- **Security & Emergency Management – Room 615 – Moderated by Department of Homeland Security**
  - 10:30 am – 11:15 am – DHS CISA Stakeholder Engagement Strategy – Regional Service Delivery Model – Michael Dailey, Stakeholder Engagement Branch Chief, Region VI
  - 11:15 AM - 12:00 PM - Cybersecurity – Protecting Critical Infrastructure - George Reeves, DHS CISA R6 Cybersecurity Advisor
  - 1:00 PM – 2:00 PM – UAS threat to Critical Infrastructure - Susan Schneider, Security Programs, Infrastructure Security Division
  - 2:00 PM - 2:30 PM - AFPM Security – UAS Toolkit, Regulatory Advocacy Updates - Jeff Gunnulfsen, AFPM, Senior Director
  - 2:30 PM - 3:30 PM - Counter UAS Strategies: Prevention, Detection, Reponse - Uzi Ibrahim, 4C Marketplace - Michael Quiroga, Asylon - Michael Lichko, Asylon
  - 4:00 PM – 5:00 PM - Autonomous Security Programs: Building Autonomous Infrastructure and Use Cases for Automation - Uzi Ibrahim, 4C Marketplace - Michael Quiroga, Asylon - Michael Lichko, Asylon

- **Chemical Track – Room 416A – Moderated by Andy Shurtleff – Airgas, Inc.**
  - 11:00 am – RTR Update - Steve Smith - Lyondellbasell
  - 11:30 am – Assessing the Human Health Risks to Fugitive Airborne Ethylene Oxide Emissions - Benjamin Chandler - GHD Services
  - 12:00 pm – Ethylene Oxide CEMS - Steve Hall - Spectrum Environmental Solutions, LLC
  - 12:30 pm – Lunch Break in the Exhibit Hall
  - 1:30 pm – Vista Analytical Lab - Martha Maier - Vista Analytical Laboratory
  - 2:00 pm – Intro to EMACT, OLD, HON, and MON Compliance Gases- Take-aways from RSR Experience - Andy Shurtleff - Airgas, Inc.
  - 2:30 pm – Combustion Turbines: Regulatory and Analyzer Update for EPA’s New Formaldehyde Emissions Limit - Troy Boley - Spectrum Environmental Solutions, LLC
  - 3:00 pm – Break to Enjoy the Exhibit Hall Refreshments
  - 3:30 pm – Flare Gas Measurement Lessons Learned from Refineries & Future of Chemical Plants - Arnold Griswald - Fluenta
  - 4:00 pm – MPV, PRD & MSS Best Management Practices at Refineries & Opportunities for Chemical Plants - Troy Knutson - Sinclair Oil
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- **Oil & Gas – Room 602 – LDAR, Fugitive Emission Monitoring and Compliance**
  - 10:00 am – The Path to Equivalency – Kristine Bennett – CSU METEC
  - 10:30 am – LDAR Case Study Comparison of Conventional Method 21 vs Alternative Work Practice - Terence Trefiak - Montrose Environmental Group, Inc.
  - 11:00 am – Back from the Future – Don Kinder, Jake Fournier, & Deever Bradley – MarkWest & ERM
  - 11:30 am – Break for Lunch in the Exhibit Hall

- **Oil & Gas – Room 616A – Emission Controls, Best Management Practices**
  - 10:00 am – Taking Advantage of the Audit Privilege When Performing EH&S Compliance Assessments – Joel LeBlanc, P.E. – Ashworth Leininger Group (ALG)
  - 10:30 am – International Cross–Party Efforts to Improve Valve Reliability – Dave Anderson – Score Valves
  - 11:00 am – Auditing in the New Decade: Creating Value by Reducing Environmental Liabilities and Risks – Tim Wilkins & Eric Hodek – Bracewell LLP & Ramboll
  - 11:30 am – Break for Lunch in the Exhibit Hall

- **Oil & Gas – Room 616B – Air Permitting and Enforcement – Moderated by Chintan Mehta – P66**
  - 10:00 am – What to Aggregate: Geographic and Temporal Considerations in Identifying Major Modifications – Eric Groten and Eric Hodek – Vinson & Elkins and Ramboll
  - 10:30 am – Permitting for a Successful LDAR Program – Brandon Mogan – Tora Consulting, LLC
  - 11:00 am – Optimizing NG Compressor Station Permitting – Joel LeBlanc, P.E. – Ashworth Leininger Group (ALG)
  - 11:30 am – Break for Lunch in the Exhibit Hall

- **Oil & Gas – Room 617 – Midstream Developments, Launching & Receiving – Moderated by Berry Mantooth – ONEOK –**
  - 10:00 am – Launcher and Receiver Consent Decree – Rob McHale & Jake Fournier – MPLX G&P & Marathon
  - 10:30 am – ZEVAC® – Reducing gas released during routine operations & maintenance – Brad Sando – TPE Midstream
  - 11:00 am – Detecting Natural Pipeline Threats and Changes Using Satellite Data – Sean Donegan – Satelytics
  - 11:30 am – Break for Lunch in the Exhibit Hall

- **Oil & Gas – Room 619 – Emerging Technologies –**
  - 10:00 am – Methane Leaks Detected Over San Juan Basin Using Aerial Data – Sean Donegan – Satelytics
  - 10:30 am – LUMEN Terrain - Continuous Ground-based Digital Methane Monitoring - Myalee Muller - Baker Hughes
  - 11:00 am – Satellite–based Hyperspectral Analysis for Emissions Detection, Integrity Monitoring and Compliance – Peter Weaver & Tushar Prabhakar – Orbital Sidekick
  - 11:30 am – Break for Lunch in the Exhibit Hall
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- 6th Floor Exhibit Hall Stage – Oil & Gas General Session – Moderated by JD Holt
  o 12:30 pm – 1:00 pm  HSE Buy-in: How to Give it, How to Get it, & How to Keep it – Tom Hutchins – Kinder Morgan
  o 1:00 pm – 1:30 pm  Kinder Morgan Methane Reduction Activities: Where are We Now and Where Do We Go From Here – Karen Nielsen – Kinder Morgan
  o 1:30 pm – 2:30 pm  NSPS OOOOa: Updates, Equivalency, and the Alternative Work Practice - Karen Marsh - Environmental Protection Agency
  o 2:30 pm – 3:00 pm  Break to Enjoy the Exhibit Hall Refreshments
  o 3:00 pm – 4:00 pm  Industry Programs & Emissions Prognostication Panel
  o Moderated by Roy Hartstein – RES Solutions
  o Environmental Partnership – Matt Todd
  o One Future – Richard Hyde
  o NASA JPL – Riley Duren
  o 4:00 pm – 5:00 pm  Leadership & Diversity Panel
  o Moderated by Angela Zivkovich – Occidental Petroleum
  o Crestwood Midstream LP – Victoria Wagner
  o HollyFrontier – Sucheta Gokhale
  o Colorado Research Collaboratory – Maury Dobbie
  o 4C – Uzi Ibrahim
Friday February 21st, 2020

6th Floor – Oil and Gas Technical Presentations 8:00 am – 3:00 pm

- **Room 616A – Oil & Gas Fugitive Emission Monitoring, Detection and Quantification Technologies – Moderated by Matt Harrison – SLR International Corporation**
  - 08:00 am – Quadcopter Drones, Fixed Wing Drone, Helicopters, or Fixed Wing Plane? – David Furry – Leak Surveys Inc.
  - 08:30 am – Methane Detection using Satellites – Stephane Germain – GHGSat
  - 09:00 am – Green Gas & Emissions Intensity - Roy Hartstein - RES Solutions
  - 09:30 am – Break to Enjoy the Exhibit Hall Refreshments
  - 10:00 am – Avitas - LUMEN Sky - Aerial Drone-based Digital Methane Monitoring - Myalee Muller - Baker Hughes
  - 10:30 am – Optical Gas Imaging: From Handheld to Autonomous - Craig O’Neill & Chris Beadle - FLIR & IntelliView Technologies
  - 11:00 am – Autonomous Mobile Methane Monitoring – Brendan Smith – SeekOps
  - 11:30 am – Drone Based OGI OOOOa (Quadcopter Drone) – Roy Massengale – EnRUD Resources, Inc
  - 12:00 pm – Break for Lunch in the Exhibit Hall
  - 01:00 pm – Right of Way using Drones – Peter Walper – Texas Energy Raters
  - 01:30 pm – ICI FLIR and TDLAS Enabled Drone Basics of Capabilities and Functionality – Gary Strahan – Infrared Cameras Inc.
  - 02:00 pm – Passive Ultrasonic Imaging: a novel LDAR tool for gas leak detection and quantification - Florian Perrodin - Distran Ltd
2020 4C HSE Conference Agenda Summary

- **Room 616B – Oil & Gas Emerging Technologies Methane Detection, Quantification and Monitoring – Moderated by Peter Walper**
  - 08:00 am – Upstream Oil and Gas Emission Inventory Calculations – TCEQ
  - 08:30 am – Oil & Gas Enforcement Update – Bryan Sinclair – TCEQ
  - 09:00 am – Applications and Field Results for Quantitative Optical Gas Imaging – Jon Morris – Providence Photonics, LLC
  - 09:30 am – Holistic Asset Management Using Methane Data & Analytics – Aaron Van Pelt – Picarro, Inc.
  - 10:00 am – Oil & Gas Federal Enforcement Update - Patrick Traylor - Vinson & Elkins
  - 10:30 am – Break to Enjoy the Exhibit Hall Refreshments
  - 11:00 am – Large Area Fugitive Emission Monitoring in All Conditions - Laser Dispersion Spectroscopy - Dr. Sophie Purser - Mirico
  - 11:30 am – Advances in Airborne Gas Leak Detection - Peter Roos - Bridger Photonics
  - 12:00 pm – Break for Lunch in the Exhibit Hall
  - 01:00 pm – Lightweight, Modular OOOOa Certified OGI Camera Core for Handheld, UAV, or Fixed Mount CMS - Jeff Leake - Sierra Olympic Technologies, Inc.
  - 01:30 pm – Emerging Technologies in Leak Detection and Quantification - Stephen Conley, PhD. - Scientific Aviation
  - 02:00 pm – Lightweight, Modular OOOOa Certified OGI Camera Core for Handheld, UAV, or Fixed Mount CMS - Jeff Leake - Sierra Olympic Technologies, Inc.

- **Room 617 – Oil & Gas Emission Controls & Best Management Practices – Moderated by Lindsay Sumpter – Williams**
  - 08:00 am – Converting Your Emissions to Electricity and More – Mark Lancaster – Baker Hughes
  - 08:30 am – Acoustic Condensate Stabilization – Stephen Saint Vincent – Saint & Tiller Technologies
  - 09:00 am – Achieve SCR Level NOx Performance with ClearSign Core Burners - Stephen Sock - ClearSign Combustion Corporation
  - 09:30 am – Do you have the Right Tank? Thief Hatch? – James Van Horne – SLR International Corporation
  - 10:00 am – Break to Enjoy the Exhibit Hall Refreshments
  - 10:30 am – Methane Emissions - Adopting a find it, fix it mentality! - Scott Wallis - Score Valves
  - 11:00 am – Isn’t It Ironic? A Case Study On Dry Seal vs. Wet Seal Centrifugal Compressor Emissions – Brandon Mogan – Montrose
  - 11:30 am – Reducing Well Pad Air Emissions - Jeffrey Wilson - EcoVapors Recovery Systems
  - 12:00 pm – Break for Lunch in the Exhibit Hall
  - 01:00 pm – Methane Emissions - Whatever you do… do something! - Scott Wallis - Score Valves
  - 01:30 pm – RICE Compliance - Dustin Perkins - GAS Inc.
  - 02:00 pm – New Technology for the Removal of Sulfur Compounds from Hydrocarbon Products, Helping Combat Economic Strains Caused by Tier II and III Sulfur Credits - Jeff St. Amant - Vapor Point, LLC
2020 4C HSE Conference Agenda Summary

Training Courses – 8:00 am – 5:00 pm

- **Engineering Ethics / Professional Practice Update** – Michael Sims, P.E. – Texas Board of Professional Engineers and Land Surveyors
  - 3:00 pm – Room 408 – Updates on engineering ethics and Code of Conduct, Board Activities, rule and statutory changes, and general updates on Board initiatives. Course includes the 1-hour ethics CEU credit as required by the State Board.

- **LDAR - Beyond Basics and Underneath the Rules** - Brian Whitley, EMSI
  - 8:00 am – Room 400

- **EPA Protocols and Other Compliance Gases Defined and Updated** - Airgas, An Air Liquide Company - Andy Shurtleff & Doug King
  - 9:00 am – Room 415A

- **Software Workshop** - Greg Sherman, Ben Hopkins, Jeremy McLeod - GuideWare Systems
  - 10:00 am – Room 415A

- **PSM Awareness** - Ric Hartung - Process & Safety Solutions
  - 8:00 am – Room 402

  - 8:00 am – Room 404

- **Fenceline Monitoring: Training & Updates** – CAMSCO
  - 8:00 am – Room 404

- **Flare Composition / Btu Measurement** - Chuck DeCarlo, Jamie Marsden, Robert Paddison, & Kevin Lingard - Extrel, Emerson Automation Solutions, Thermo Fisher Scientific, Spectrum Environmental Solutions
  - 8:00 am – Room 406

- **Flare Controls** – Dr. Lei Sui, Panametrics
  - 1:00 pm – Room 406

- **Workshop on Best Practices in Valve Condition and Performance Monitoring** - Score Valves - Dave Anderson
  - 8:00 am – Room 414

- **BWON Auditing for Experts** - Ken Garing, Steve Probst, 4C Marketplace, Cal Niss, Trihydro
  - 8:00 am – Room 416A

- **Tanks Essentials** - Rob Ferry & Harold Laurence - Trinity Consultants
  - 8:00 am – Room 416B

- **Compressor Engine Maintenance & Testing** – Weston Solutions
  - 8:00 am – Room 602

- **SPCC Training** - Bison Engineering
  - 8:00 am – Room 417A

- **Stormwater Pollution Prevention Plan Training**
  - 1:00 pm – Room 417A
2020 4C HSE Conference Agenda Summary

• Refinery Fenceline Monitoring Root Cause Analysis: How To Conduct and Then Develop An Effective Corrective Action Plan - Robert Opiela – NaviKnow, LLC
  o 8:00 am – Room 417B

• Microsoft Excel Best Practices for Plant Professionals (and Others) – John Beath Environmental
  o 10:00 am – Room 417B

• Drone 3D Modeling, Mapping and Photogrammetry Course Utilizing Pix4DMapper - Kwasi Perry - UAV Survey Incorporated
  o 1:00 pm – Room 417B

  o 1:00 pm – Room 602

• Oil & Gas Stack Testing - Robert Hargrave – Bair
  o 3:00 pm – Room 616B

• Permitting for Compressor Stations
  o 3:00 pm – Room 616A
  • Essentials of Air Permitting & Compliance for Chemical Plants

• EPCRA/TRI Training
  o 1:00 pm – Room 412

  • Security & Emergency Management Training Classes
  8:00 AM – 10:00 AM Friday February 21, 2020 – Room 615

• 8:00 AM – 9:00 AM – CFATS 101
  • CFATS 101 - CFATS is the Nation’s first regulatory program focused specifically on security at high-risk chemical facilities. The Cybersecurity and Infrastructure Security Agency (CISA) manages the CFATS program by working with facilities to ensure they have security measures in place to reduce the risks associated with certain hazardous chemicals, and prevent them from being exploited in a terrorist attack
    o Personnel Surety Program
    o Understanding Risk-Based Performance Standards (RBPS) 12 – Personnel Surety requires facilities to perform background checks on affected individuals (facility personnel and unescorted visitors) which includes checks to verify:
      ■ Identity
      ■ Criminal History
      ■ Legal Authorization to Work
        • Steven Shedd, DHS Chief Regulatory Compliance
        • Shawn Perceful, DHS Senior chemical Security Inspector
        • Ann Ratliff, DHS Regulatory Analyst

• Room 615 10:00 – 11:00 AM
• ACTIVE SHOOTER Training - Mitigating the Active Assailant – DHS CISA, Region 6
2020 4C HSE Conference Agenda Summary

- Active shooter incidents are often unpredictable and evolve quickly. In the midst of the chaos, anyone can play an integral role in mitigating the impacts of an active shooter incident. DHS aims to enhance preparedness through a "whole community" approach by providing products, tools, and resources to help you prepare for and respond to an active shooter incident.

- Topics Covered:
  - Active Shooter Preparedness
  - Counter-Improvised Explosive Device
  - Insider Threat

- Presenters:
  - Active Shooter Preparedness (PSA Lee Otten)
  - Counter-Improvised Explosive Device (OBP, Doug Delancey)
  - Insider Threat (Susan Schneider, Chief, CISA Emerging Threats Branch)

- Security & Emergency Management Breakout Presentations

  11:00 AM – 5:00 PM Friday, February 21st, 2020 – Room 615

- 11:00 AM – 12:00 PM
  - Crisis Response vs. Incident Management

- 12:00 PM – 1:00 PM Lunch

- 1:00 PM – 1:30 PM
  - Developing Unified Command

- 1:30 PM – 2:00 PM
  - Lessons Learned in Emergency Response Exercise Planning

- 2:00 PM – 2:30 PM
  - UAV’s for Emergency Response; Being Prepared for the Unthinkable – Refinery Response using UAVs

- 2:30 PM – 3:00 PM
  - An Operator’s Perspective: In-House Tools and UAS for Initial Response (Inland Pipeline Response)

- 4:00 PM – 4:30 PM
  - Community Outreach in Emergency Response

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Saturday February 22nd, 2020

- HSE Leadership Excellence Training Course – Steve Probst – 4C Marketplace & Conference
  - 9:00 am – 1:00 pm – Room 602
2020 4C HSE Conference Agenda Summary

4C HSE Conference for Upstream Midstream Oil and Gas – Agenda Summary

Summary for Oil & Gas Attendees – All Sessions are Duplicates from Full Agenda.

- **Wednesday – Oil & Gas Training Classes**
  8:00 am – 5:00 pm – February 19th, 2020
  - Quantitative Optical Gas Imaging
  - Liquids Fuels Terminals – Basics of Environmental Permitting and Compliance
  - Spill Prevention, Control, and Countermeasures
  - Operations Troubleshooting of Biological Treatment in Refineries and Petro Chemical Facilities
  - OOOOa LDAR Training
  - Oil and Gas Regulations: What you need to focus on now

- **Thursday – Oil & Gas Breakout Presentation Tracks**
  10:00 am – 11:30 am – February 20th, 2020
  - Oil & Gas LDAR, Fugitive Emission Monitoring and Compliance – Room 602 –
  - Oil & Gas Best Management Practices – Room 616A
  - Oil & Gas Air Permitting – Room 616B – Moderated by Chintan Mehta – P66
  - Midstream Emerging Technologies, Launching & Receiving – Moderated by Berry Mantooth – ONEOK
  - Oil & Gas Emerging Technologies –

- **6th Floor Exhibit Hall Stage – Oil & Gas General Session – Moderated by JD Holt**
  12:30 pm – 5:00 pm – Thursday February 20th, 2020
  - Tom Hutchins, Kinder Morgan, HSE Buy–in, How to Get it and How to Give it.
  - Kinder Morgan, Blowdown Reductions
  - Karen Marsh, EPA, NSPS OOOOa: Updates, Equivalency, and the Alternative Work Practice
  - Industry Programs Panel – Moderated by Roy Hartstein
  - Leadership and Diversity Panel – Moderated by Angela Zivkovich

- **Friday – Oil & Gas Training Classes**
  Friday – February 21st, 2020
  - SPCC Training
  - Stormwater Training
  - Advanced Excel Skills for Environmental Professionals
  - EPCRA / TRI Training
  - Oil & Gas Stack Testing
  - Permitting for Compressor Stations
  - Drone 3D Modeling and Photogrammetry

- **Friday – Oil & Gas Breakout Presentation Tracks**
  - Fugitive Emission Monitoring, Inspection and Detection Technologies – Moderated by Matt Harrison - SLR
  - Methane Detection, Quantification and Advanced Monitoring Technologies – Moderated by Peter Walper
  - Emission Controls & Best Management Practices – Moderated by Lindsay Sumpter – Williams

- **Saturday Oil & Gas Training**
  - HSE Leadership Training