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## Track Summary – Best Practices

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### Training Classes – February 19 – 21, 2020

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**SPCC Training**

**Stormwater Training**

**Advanced Excel Skills for Environmental Professionals**

**PSM Excellence**

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### Breakout Presentations – Thursday February 20, 2020

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**MPV, PRD & MSS Best Management Practices at Refineries & Opportunities for Chemical Plants**

**Integrating Speciation Data For Chemical Plants and Refineries**

**How Do You Feel About Storing Your Emissions Data in the Cloud?**

**Boiler and Process Heater Tuning as a Best Management Practice**

**Process Burner Flames: The Good, the Bad, and The Ugly**

**Contractor Management**

**Eliminating H<sub>2</sub>S & SO<sub>2</sub> Emissions at SRU, Coker and Sulfur Pits of Refineries**

**Conforming to ASTM–D7036: Self–Declaration vs. Third–Party Accreditation**

Detailed Agenda Continues on Next Page

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## Best Practices – Breakout Presentations

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### Best Practices Breakout Room 417A – Thursday February 20, 2020

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- **10:30 AM – 11:00 AM**
  - **MPV, PRD & MSS Best Management Practices at Refineries & Opportunities for Chemical Plants – Troy Knutson – Sinclair Oil**
  - Abstract Coming Soon.
- **11:00 AM – 11:30 AM**
  - **Integrating Speciation Data For Chemical Plants and Refineries – John Beath – JBE**
  - Abstract Coming Soon.
- **11:30 AM – 12:00 PM**
  - **Derrick Reese – ExxonMobil**
  - Abstract Coming Soon.
- **12:00 PM – 12:30 PM**
  - **How Do You Feel About Storing Your Emissions Data in the Cloud? – Matthew Radigan – REGS, LLC**
  - Cloud computing means storing and accessing data and programs over the Internet instead of your computer's hard drive. In order to implement a cloud solution, you need some basic tools to connect your data source(s) to the Internet. Connection to the cloud storage needs to be secure, reliable and accessible. Turn on any new WiFi enabled device, click through some prompts and you are connected. Technology has made it so easy that it doesn't even require a conscious thought to participate. Will the same environment that drives my social life translate to my workplace and more importantly, help me successfully manage my critical air emissions compliance data. Required tools, feasibility and practicality of using cloud computing for compliance applications will be covered during the presentation.
- **12:30 PM – 1:30 PM Lunch Break in the Exhibit Hall**
- **1:30 PM – 2:00 PM**
  - **Boiler and Process Heater Tuning as a Best Management Practice – John Bacon – TRC Consulting**
  - While most facilities perceive 40 CFR 63 Subpart DDDDD (Boiler and Heater MACT, or MACT DDDDD) as costly regulation, four years of data compiled from the annually and biennially recurring tune-ups indicates the opposite is true. In fact, regular boiler and process heater tuning for natural gas fired sources can lead to considerable cost savings related to fuel use and a simple payback on the tune-ups services within months. The purpose of this presentation is intended to enlighten the audience on the benefits of boiler and process heater tuning, using data compiled from tune-ups performed on nearly 600 combustion sources, and conducted in accordance with the Boiler MACT work practice standard. Also, how a facility can further benefit from the regular performance of these services beyond the regulatory framework.

## Best Practices – Breakout Presentations

- **2:20 PM – 2:30 PM**
  - **Process Burner Flames: The Good, the Bad, and The Ugly – Doug Basquez & Charles Baukal – HollyFrontier Corporation & John Zink Co. LLC**
  - John Zink Hamworthy Combustion field personnel inspect thousands of burners each year. Too often those flames are not only bad but sometimes potentially dangerous. There are a number of conditions needed for good flames. Burners should be operating at or near their design conditions which includes the excess air and draft levels, and the design firing rate (fuel pressure) and fuel composition. The combustion air must be properly distributed, the fuel must be clean, and both the air and fuel must be properly controlled. The burner and its associated equipment (e.g., tile and pilot) must also be properly installed and maintained. There are some visual indicators that should be checked for proper burner operation. These include uniformity (all flames in a given heater should normally look about the same), proper flame color, no leaning between flames or into process tubes, no pronounced hot spots or dark spots on the burner tiles, no irregular flame movement (e.g., no pulsing), and no unusual sounds (e.g., flashback). Bad flames can lead to increased pollution emissions, reduced thermal efficiency, and unplanned shutdowns. Common reasons for bad flames include improper burner maintenance and operation. Dirty fuel is particularly problematic as it can cause fuel injectors to plug which can create multiple problems. Ugly flames can be dangerous and need to be corrected as soon as possible. Examples of these irregular flames include flame impingement, huffing or pulsing, or severely lifted flames. The purpose of this presentation is to discuss proper burner operation and what good flames look like and then to contrast that with lots of examples of improper burner operation including the causes and corrections. This information can be used in the risk-based inspection and performance monitoring processes. Typically, equipment has a function statement (primary/secondary) and performance objectives and ranges. The consequences when the function of the equipment has failed is documented in the earlier processes.
- **2:30 PM – 3:00 PM**
  - **Contractor Management – Ric Hartung – Process Safety Solutions, LLC**
  - Currently there are a large number of facilities covered by Process Safety Management (PSM) that either use a third party or manage their own contractor safety programs. Numerous compliance audits and National Emphasis Program (NEP) inspections has revealed a serious gap. While these third parties may do an adequate to good job in obtaining contractor information, evaluating statistics, and managing documentation, most fail to meet the requirement outlined in the PSM Regulation regarding contractor evaluations and verification. This gap leaves the host employer vulnerable to significant OSHA & EPA violations and fines. At issue, is the requirements outlined in several sections in the PSM regulation starting in sub-section (f)(4) stating that “the employer shall develop and implement safe work practices to provide for the control of hazards during operations such as lockout-tagout; confined space entry; opening process equipment or piping; and control over entrance into a facility by maintenance,

## Best Practices – Breakout Presentations

contractor, laboratory, or other support personnel. These safe work practices shall apply to employees and contractor employees” (emphasis added). This indicates that the host employer’s safe work practices apply to not only its own employees, but also to the contractors that perform work in the covered process. The host employer responsibilities are further outlined in sub–section (h)(2)(v) such that “The employer shall periodically evaluate the performance of contract employers in fulfilling their obligations as specified in paragraph (h)(3) of this section. For the host to fulfill PSM obligations regarding contractors, it must verify that the contractor has received safe work practice training, including site–specific requirements, such as but not limited to, the potential hazards that may be present in the facility. The contractor may use their own safe work practices, but this would need to be agreed upon beforehand and the host “must” evaluate each safe work practice to ensure that they are equivalent or more stringent, than their own.

- **3:00 PM – 3:30 PM Break to Enjoy Exhibit Hall Refreshments**
- **3:30 PM – 4:00 PM**
  - **Eliminating H<sub>2</sub>S & SO<sub>2</sub> Emissions at SRU, Coker and Sulfur Pits of Refineries – Jim Woodard – Vapor Point, LLC**
  - Vapor Point applies high efficiency liquid scrubbing systems to eliminate Hydrogen Sulfide (H<sub>2</sub>S), Sulphur Dioxide (SO<sub>2</sub>) other Sulfur Species as well as other Hazardous Air Pollutants (HAPs) and Volatile Organic Compounds (VOCs). Specially designed temporary vessels for liquid and vapor phase product management have also been developed and are key elements in some applications. These control system concepts and resulting proven processes were developed with input from refining personnel who needed alternative technologies that would offer operational flexibility eliminating the various sulfur contaminates. The vapor phase emission control systems and specially designed process vessels have met the needs of the refining industry with numerous field implementations.
- **4:00 PM – 4:30 PM**
  - **Conforming to ASTM–D7036: Self–Declaration vs. Third–Party Accreditation – David Fricker – A2LA**
  - Confidence in test data is paramount to acceptance, and both users and customers want assurance of quality. In general, testing bodies that choose accreditation rather than self–declaration demand a higher quality of work to maintain that accreditation and strive to produce more reliable results. In turn, customers have greater confidence in the accuracy and validity of the data from these testing bodies. Accreditation also provides the industry with confidence that a testing body is subject to regular oversight as a motivator to continually improve their operations. The ongoing verification of compliance ensures that the testing body’s results are consistently dependable and defensible.