

## EPC MAINTENANCE & RELIABILITY SUBCOMMITTEE MEETING

Location: Chevron Phillips, Baytown, TX

Date: Wednesday September 12, 2018

**Minutes Written By:** Thomas Garza

### **MEMBERS ATTENDING:**

#### **In Person:**

Thomas Garza (ChevronPhillips)

Jorge Blanco (ARVOS)

Dane DeRouen (BASF)

Linda Robinson (Knighthawk)

Jimmy Cleavinger (ChevronPhillips)

Keith Wade (Zeeco)

#### **Phone:**

Mark Karrs (Becht)

Paul Van Helmond (Linde)

Shailendra Inamdar (Linde)

Mike Pelton (Lyondellbasell)

John Weikel (BASF)

Chris Galipeau (Nova)

Tatiana Randall (Flint Hills)

Dave Sankey (BASF)

The meeting was called to order at approximately 9:10 AM.

### **Proceedings:**

- I. Tom Garza called the meeting to order and introductions were made around the table and on the phone.
- II. The anti-trust statement was read.
- III. The agenda was reviewed.
- IV. Safety / Reliability moment
  - a. Tom Garza spoke briefly on the hazards of driving in inclement weather and hurricane preparedness.
- V. Approved previous meeting minutes.
- VI. Review of Membership List
  - a. The existing membership list was reviewed. It was agreed that Dan Barnett of BD Systems and Karl Bishop of Westlake Petrochemical be removed since they have not been active in the last year. Tom Garza to confirm via email prior to removing them from the current membership list.
- VII. Topics & Themes for 2019 EPC Sessions
  - a. Discussions of M&R 2019 Themes:
    1. Optimization & Furnace Inspection Technologies – TBD
    2. Radiant Coil Metallurgy and Anti-Coking Developments – Joint Session with Technology S/C and M&R

- b. Potential topics for 2019 papers were reviewed and during this process, potential topics were noted as High, Medium and Low to determine the likelihood of which potential topic would be considered.
- c. Topics discussed as potential papers included:
1. Industry 4.0 applications – **Low Potential**
    - EPC will have a Session on Big Data, Dow personnel sort of led the effort. BASF using tablets to enter field data. LYB use Intelect Track Modified
    - FHR using i360 for data analytics for coil life expectancy. Potential Paper with FHR and i360. – T. Randal to confirm.
    - **NOTE:**
  2. Furnace Instrumentation – **Low Potential**
    - Consideration of EPTIS from Quest Integrity crawler for inspection of radiant coils.
    - Coke Buster, TubeTec (UK), and Quest.
    - Temperature measure using thermal couples on coils, contact WIKA Gayesco, Dow Taft maybe using it. Suppliers to contact Producers.
    - Exactus – BASF technology, tried to get a presentation but no producer to co-author.
    - Daily Thermetrics in Houston are in the process of trying to find a producer willing to co-author a paper.
  3. Fitness-for-Service – **High Potential**
    - TLE’s CPCChem presented in 2018. Gary Krnorer of CSI inspections to be contacted – Inspection Aspects – J. Cleavinger to confirm
  4. Radiant Coil Improve Runlength via New Technology – **Low Potential**
    - Is case study available or owner-operator participation? Is it applicable to M&R?
    - Sandvik to reach out with their customer about, but likelihood of support seems low.
  5. Furnace radiant coils: damage mechanisms, new alloys, etc. – **Low Potential**
    - Operator experiences on variety of radiant coil improvements, surface barrier, profiling, material upgrades
    - Tom Garza to confirm with Chinh Dang
  6. Furnaces – ID Fan Applications – **High Potential**
    - Clarage is very interested in paper.
    - John is checking for BASF contributor
  7. Furnaces – Tunable Diode Laser Systems for Furnace Optimization, from Zolo – **New Topic**
    - Mike Pelton to follow-up with LYB internally on possible case study.
    - Mike Pelton to contact Eric Gebhard with John Zink
  8. Furnaces – Coil problems, creep, corrosion, etc – **Dropped**
  9. Furnaces: Instrumentation Around TLE’s – **Low Potential**
    - Combine with other instrumentation topic (WIKA also).
    - Shail will be following up. Same as #2.
  10. Furnaces – Material Advances, Anti-Decoking – Low Potential
    - Consider inviting to MetalTek to S/C meeting for presentation.
    - Tom Garza to coordinate
  11. Fitness-for-Service – Steam Super Heater Coil – **High Potential**
    - High Temperature Excursion
    - Tom Garza to coordinate
  12. Bentley Nevada – **New Topic**
    - Shailendra to contact Bentley.

- 13. MOV Reliability – Transfer Line Valve – **New Topic**
- 14. Fitness-for-Service – Advanced Inspection Techniques – **High Potential**
  - Piping Inspection Applications (Becht Paper) - M. Karrs
- 15. Furnace Refractory – **New Topic**
  - Life Cycle Analysis – Tatiana Randall
  - Moved to 2020 but could be developed for 2019 if interest
- 16. Utilities: Steam Systems – **New Topic**
  - Additionally following-up required.

VIII. Abstracts

- a. DUE DATE: NOV. 12<sup>TH</sup>

IX. Joint Session – Technology and M&R

- a. Technology and M&R Joint Session. The papers for this Joint Session will focus on new coil metallurgy, technologies and anti-coking technologies.
- b. M&R Liaison – M. Pelton

X. Next Meeting

- a. Wednesday, October 10<sup>th</sup>, at Flint Hills, Port Arthur, Texas.
- b. Wednesday, November 7, at Eastman Chemical, Longview Tx.

I. Meeting Adjourned at 11:00 am.

II. Presentation – Daily Thermetrics, “Process Temperature Measurement” by Bob Randolph

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