

Minutes of Meeting Maintenance & Reliability Subcommittee of the Ethylene Producers Committee

DATE: October 15, 2015

LOCATION: Eastman, Longview, TX hosted by David Harrison

Minutes written by: Jorge Blanco and Dane DeRouen

MEMBERS ATTENDING:

In person:

Jorge Blanco, ARVOS
Dane DeRouen, BASF
David Harrison, Eastman
Keith Wade, Zeeco
Ken Webb, Eastman

By phone:

Brian Allen, Huntsman
Samantha Borssen, Sasol
TC Cannon, Williams
Shailendra Inamdar, Linde
Muhammad Imran, Technip
Darren Martone, Williams
Mike Pelton, LyondellBassell

The meeting started at 9:07 am.

AGENDA

1. Welcome
2. Read anti-trust statement
3. Review agenda
4. Review & approve previous meeting minutes
5. Finalize 2016 Paper Topics
6. Planning for Abstracts & Paper Development
7. Other subcommittee business
8. Next Meetings
9. Formal Meeting Adjourn
10. Lunch
11. Plant Tour (optional)

PROCEEDINGS

The meeting began with the reading of the anti-trust statement, and was followed by a review of the Meeting Agenda.

Minutes from the previous meeting, of September 10, were reviewed and approved.

New and returning members were introduced

- Brian Allen, Mechanical Reliability Engineer, has taken the place of Joe Martin from Huntsman
- TC Cannon, Maintenance Manager, has rejoined the subcommittee and introduced two new members from Williams
 - o Mike Kudijaroff, Maintenance Engineer
 - o Darren Martone, Maintenance Supervisor

The membership list will be updated when the new members are added, phone numbers verified and mobile phones added.

In response to Brian Allen's question, Dane spent a few minutes explaining the organization, its function and objectives in support and preparation of Session papers and presentations for the yearly Ethylene Producers' Conference. Regarding any proprietary information, this will not be shared unless corporate legal officers approve for public dissemination.

A review of the proposed session topic list for 2016 was led by Keith Wade and Dane DeRouen, with active participation by attendees present in Eastman's conference room, as well as on the phone who also connected to the meeting via WebEx. The results of the discussions and the review of the topics for the Session are summarized below (with author sponsors' in parenthesis) and updates in the table at the end of these notes:

1. Convection Bank Cleaning and Inspection (Shailendra Inamdar/Dane DeRouen)
2. Radiant Tube Inspection (Dane DeRouen)
3. Firebox Combustion Monitoring (Mike Pelton to contact D. Barnett / Jorge Blanco to contact Zoloscan)
4. Refractory End of Life Assessment and Life Extension (Dave Sankey)
5. Cooling Tower Inspection and Repairs following failure (Mike Pelton)
6. Cooling Tower Inspection & Repair Experience (Samantha Borssen)
7. Cooling water system preservation for long outages (TC Cannon)
8. Rope Access for Inspection and Repairs (TC Cannon, David Harrison, Dane DeRouen, Karl Bishop to coordinate experiences and suppliers)

TC Cannon also raised caution about the potential for oil residue on new or re-tubed heat exchangers, specifically the propylene condensers, to form hydrates and plug up cold service brazed aluminum exchangers in propylene service upon start-up. A propanol flush to clean such exchangers prior to commissioning was recommended. Although not considered for a paper subject at this time, it was noted as possible for future paper subject.

Action items:

- Jorge will contact Lummus regarding their knowledge of and possible support regarding Quest's work at Bukom Singapore.
- Dane to provide Jorge with contact at Zoloscan.
- Mike Pelton to submit abstract on his proposed Cooling Tower paper by the end of next week.
- All abstracts are due to the subcommittee by October 30. This can be a draft for initial review and comment by the S/C for the authors.

Next Meetings:

- Thursday, November 10, 2015 to be hosted by Mike Pelton at LyondellBasell, Channelview, TX

- Thursday, December 10, 2015 to be hosted by Dave Sankey and Dane DeRouen at BASF-Total, Port Arthur, TX
- Thursday, January 21, 2015 tentative at Williams Chemical in Geismar, LA, subject to confirmation by TC and Darren

There were no other Subcommittee or main committee news or information discussed.

2016

Area of Interest	Topic	Idea by	Status	Author	Sponsor	Remarks
Convection Bank	Cleaning & Inspection of convection tubes, inside tube -wall measurement	Inamdar/McCarter	firm	D. Meinen, Quest	DeRouen	Smart pigging by Quest Integrity, who is willing to do paper. The technology is relatively new to Olefins, more experience in refining. They have a plexi-glass model demonstration unit of which perhaps a video could be made?
Convection Bank	Tubesheet failure	Bishop	possible			potentially a good topic, need more info from Karl Bishop but Westlake N/A for spring mtg dut to TAR. Paul VH said licensors could present design perspective, how design affects replacement, end tubesheet vs. intermediate tubesheets, replacement or design options. Consider coupling that with practical experience from Westlake. Sept 28: Dane to follow-up w/ Karl Bishop
Convection Bank	Tube Expected life - Destructive Testing	Bishop	possible			potentially a good topic, need more info from Karl Bishop. Alternate author possible?
Cooling Water System	Cooling tower collapse		firm	Lyon-Bas	M. Pelton	LyondellBassell will do a paper on cooling tower inspection & repairs: start with failure that occurred then focus on resulting inspection practices, what to look for, repair methods, and move from timber to FRP.
Cooling Water System	Mtc & Inspect in FRP Cooling tower	EPC Session	possible	vendor?	S. Borsen	Samantha said Sasol had recent experience with CWT repair /replacement following inspection, use of FRP. She is trying to get commitment from cooling tower vendor, presentation could focus on tower replacement and compliment the Lyondell-Bassell paper.
Cooling Water System	System preservation during long outages to prevent chip scale, delayed re-start due to plugging/cleaning equipment	TC Cannon	possible		TC Cannon	potential paper based on experience at Williams with support from Athlon (chemical treatment vendor)
Radiant Section	Firebox Combustion Monitoring	Barnett	possible		Barnett	User experience available for case study? ZoloScan Mike Pelton to follow-up with Dan Barnett (no reply yet). Jorge to contact Zolo Technologies directly.
Radiant Section	Radiant Tube Inspection	DeRouen	firm	K. Stevens, Quest	DeRouen	Quest Integrity. User experience available from Shell (Singapore) or Lummus possible? Experience is mostly in reformers with limited application to cracking furnaces, but interesting as new/potential technology
Refractory	refractory end of life assessment, life extension practices		possible	vendor? Delta	Sankey?	Delta Refrac expressed interest in developing a paper but need to refine the topic and check if supporting plant case study/experience available (with BASF?)
Rope Access for Inspections & Repairs	Multiple cases sited	DeRouen, Webb, Bishop	possible			TC Cannon to contact MHT, David Harrison to contact RAT. Potential topic to cover inspection, blinding and repairs using rope access instead of costly scaffolding.

The meeting adjourned at 10:45 am.

David Harrison and Ken Webb took Dane DeRouen, Keith Wade and Jorge Blanco on a tour of the plant.