

**Minutes of Meeting: EPC Maintenance & Reliability Subcommittee**

Minutes written by: Jorge Blanco

**Meeting Date:** July 10, 2014

**Meeting Location:** Web / Phone conference - Hosted by Jorge Blanco

**Members Attending:**

Jorge Blanco – Alstom  
Muhammad Imran – Technip  
Trobie Thompson – Sasol

Jeff Byrd – DuPont  
Mike Pelton - LyondellBasell  
Paul van Helmond - Linde

**Meeting Started at 9:10 am**

**Antitrust statement:** The Antitrust Statement was read to kick off the meeting.

**Next Meeting Schedule**

August 7, 2014           Linde Engineering North America – Houston, TX  
September 11, 2014    LyondellBasell – Channelview, TX

**Membership:**

An updated directory was sent-out prior to the meeting. The following changes were noted since the EPC in New Orleans:

- Carl Matherne has left BASF and joined Total. He's in a non-ethylene function as best we know.
- Jonathan Cardell has left DuPont and joined Huntsman. He will be contacted to see if he wishes to continue to be associated with the S/C.
- Nathan Levin from Shell has been added to the list to fill a vacant spot.
- Joseph Martin from Huntsman has been added to the list to replace Steve Hospodar who will not be on the S/C any longer.
- Jimmy Cleavinger sent new mobile phone to be added
- Paul van Helmond's email address will be updated.

**Discussions:**

1. Review topics that were suggested in the 2014 EPC sessions' evaluation forms.
  2. Consider repeating the furnace tutorial every year.
  3. Consider joint session (possibly tutorial) with the operations S/C.
1. 2014 Ethylene Producers Conference Maintenance & Reliability S/C topics requested in the session evaluation forms.

Trobie summarized the comments and ratings given our Sessions in the evaluation forms submitted during the conference. High marks were given to the tutorial session. Although the paper session attendance was lower, good comments were received on the papers presented.

The table on the next page lists the topics suggested in the evaluation form. Comments and suggestions following today's meeting are incorporated.

2015 Ethylene Producers' Conference Maintenance & Reliability Subcommittee				
Item No.	Suggested Topics for 2015	Paper-P Tutorial-T M&R-M Operation-O	Follow-up	Notes
1.00	Tutorial for cold ends/separation	P, M	Paul van Helmond	The general subject was not widely supported. However based on a recent non-ethylene incident Paul suggested a topic related to the removal of perlite in cold boxes as a safety and maintenance issue.
2.00	Utilities Impact of our Systems Case Studies	P, M	Trobie Thompson	Unsure of intent. Trobie offered possible ideas - failure in steam systems or entrainment of water in nitrogen lines.
2.10		P, M	Trobie Thompson	Also, consider impact of plant debottlenecking and expansions on utilities. How do they keep up with increase demand requirements.
3.00	How to commission/line flush new cracking furnaces.	P, M	Mike Pelton	Paul suggested bringing in a service company (chemical cleaning) that does this work. MPelton maybe interested in presenting.
4.00	Furnace burner tuning operational issues	T, M or Jt O	Jorge Blanco	Could be considered for joint session with Operations S/C
4.10		T, M or Jt O	Dan Barnett	Fuel Flow Firing Uniformity Check - proposed paper by DBarnett last year
4.20		T, M or Jt O	Jeff Byrd	JByrd will look into services to be provided by John Zink at his plant.
		T, M	Jeff Byrd	JByrd also suggested issues concerning failures of fuel/gas coolers. What are plants doing?
5.00	New Technology coils	exclude		Not for this S/C
6.00	Maintenance and repair/retube of in-service radiant coils/aged radiant coils	Not this time		Paul noted Bob Pritchett's paper on safety measures to consider during furnace repairs following radiant tube failures
7.00	Inspection method of TLE and convection coils.	T, M	Trobie Thompson	What new practices in the industry to inspect and clean convection coils
		Not this time		Jorge does not feel there is anything significant to present for TLE inspection. This has been generally covered in the tutorial's steam system discussion
8.00	End of decoking monitoring/methods to determine end of decoke.	T, M	Brian Sullivan	Contact Brian Sullivan to see if he wants to do a follow-up to the tutorial section he did.
9.00	Repair/retube methods for new furnace technology over last 10-15 years.	exclude		Nothing new in this field
10.00	Furnace Maintenance Tutorial - advanced	T, M	Trobie Thompson, Mike Pelton, Muhammad Imran	Jorge proposed idea of doing a furnace tutorial every year. Start with the current slides to minimize requirement from companies legal reviews. Paul feels EPC will support this but not a complete repeat year after year. Trobie suggested having a shortened base tutorial and then focus or expand on any given topic area
11.00	Furnace case studies for troubleshooting--all kinds.	T, M		Consider as topics for tutorial
12.00	Conversion control best practices.	T, O		Operations S/C
13.00	Coil balancing best practices.	T, M	Mark Karrs	Consider topic for tutorial. Ask Karrs if he wants to refresh his presentation from some years ago.
14.00	Furnace safety/Incidents.	T, M, O		consider as case studies to form part of tutorial
15.00	Start-Up/Commissioning of newly built furnaces.	P, M		goes with item 3
16.00	Aluminum brazed plate fin exchangers; hydrogen service issues	exclude		Operations or Safety issues
17.00	More heater subject matters.	T, M		For a tutorial
18.00	More emphasis on operation of existing furnace equipment rather than on design (i.e. we know where	T, M, O		contact Operation S/C
19.00	Optical COT's with BASF	P, M	Nicholas Graham	check with Ben Brown and Dane DeRouen
20.00	Emissivity Coatings tubes and refractory	P, M	Keith West	Interesting if brought up by operating company rather than a vendor
21	General Topics	P or T, M	Muhammad Imran	Muhammad offered to check internally in Technip if they wish to present on a pertinent topic.

2. Consider repeating the furnace tutorial every year.

Feedback during the conference and in the evaluation forms returned by the attendees support the notion of repeating the furnace tutorial. Jorge brought up the idea which was open for discussion during the

meeting today. Paul thought that this is a good idea, the EPC is supportive of Tutorials, but that fresh information should be added, the same material should not be repeated year after year. Trobie suggested having the general tutorial and follow with more in depth coverage of a specific topics such as spring hangers and comparison to counterweight systems. Other topics are listed in the table above.

3. Consider joint session (possibly tutorial) with the operations S/C.

The comments in the session evaluation forms suggested topics that could pertain more to Operations, or could be considered to cross over between operations and maintenance and reliability. Jorge contacted and shared the comments from the evaluation forms with Richard Rolke of Dow who is the current Chair of the Operation Subcommittee. He will address his Operations S/C and will let us know their interest in a joint session.

#### **Other items discussed.**

1. Election of S/C officers will take place during our next meeting on August 7
2. Selection of Chair and Co-chair will be made during the same meeting.
3. Key Dates:
  - a. November 14 abstract uploaded
  - b. December 5 reject or accept papers
  - c. April 10 confex closes to uploading extended abstracts
  - d. Conference takes place April 26 thru 30 in Austin, TX.
4. Paul suggested Jorge contact S/C members prior to next meeting to request help for the next conference and potential chairs.

**Meeting Adjourned. 10:15 am**