<u>Minutes of Meeting</u>: EPC Maintenance & Reliability Subcommittee Minutes written by: Jorge Blanco

Meeting Date: October 23, 2014

Meeting Location: Sasol America, Westlake, LA - Hosted by David Nguyen

Members attending in person:

Jorge Blanco – ARVOS Muhammad Imran Technip Stone & Webster David Nguyen - Sasol Keith Wade – Zeeco

Members attending via telephone and web conference:

Dan Barnett – BD Energy Dane DeRouen - BASF Dave Sankey - BASF Shailendra Inamdar - Linde Mike Pelton - LyondellBasell Paul van Helmond - Linde

Guest Speaker connecting via telephone and web conference:

Mike Watson, Managing Director of Tube Tech International

Meeting Started at 9:00 am

<u>Agenda</u>: The Agenda was reviewed and attendees reminded of the presentation Tube Tech was going to make during our meeting. Normally it would have taken place at the conclusion of our meeting, but an exception was made to accommodate the time difference since Mr. Watson was calling in from the UK.

Antitrust statement: The antitrust statement was read.

No activity of the committee shall involve the exchange, collection, or dissemination of information among competitors for the purpose of bringing about or attempting to bring about an understanding or agreement, written or oral, formal or informal, express or implied, among competitors, with regard to costs, prices, pricing methods, terms or conditions of sale, distribution, production quotas or other limitations on either the timing or volume of production or sales, or allocation of territories or customers.

<u>Minutes of meeting of September 18, 2014:</u> The Minutes of Meeting were reviewed and approved.

<u>Presentation by Tube Tech</u>: Tube Tech was invited to make a sales presentation of their technology for cleaning convection section tubes using robotic equipment of their design. This company will be presenting a paper at the 2015 EPC demonstrating this technique to cleaning tubes.

Next Meeting Schedule

November 13, 2014 BASF Port Arthur, TX

Important dates

- a. October 31, 2014 Abstract to be submitted to Jorge and Muhammad
- b. November 14, 2014 Last day to upload abstracts to Confex
- c. December 5, 2014 reject or accept papers
- d. April 10 Confex closes to uploading extended abstracts
- e. Conference takes place April 26 thru 30 in Austin, TX.

Discussions:

The November 14 deadline to upload the abstracts was emphasized multiple times during the meeting.

Today's meeting concentrated on reviewing the program from our Session and the abstracts received. All attempts will be made to submit final copies by Friday October 31. Dan and Jorge will work with authors for papers 3 and 4 to have at least a draft of the abstracts by October 31.

Jorge will work on the wording of the abstract for the robotic tool to clean convection banks. Dan will help proof read before submittal to Tube Tech.

The order of papers was discussed resulting in numbering the abstracts in the preferred sequence for presentation at the conference.

The Session will be led by the 1) Ethylene Cracking Heater Troubleshooting Tutorial. The S/C members concurred that Brian Sullivan's abstract offers a good broad overview on furnace issues. This paper will be followed by the papers associated with furnace issues:

2) Cracking Furnace Fuel Supply – Design, Operational and Maintenance Issues

3) Maintenance Practices in Balancing Coil for Improved Reliability

4) Convection Cleaning with Robotic Equipment

The two papers addressing Pre-commissioning topics will end the Session. LyondellBasell and Linde will coordinate the Titles, Subject Matter and Presentation of these papers.

The topic related to SCR's has been dropped from further consideration.

Jorge will work on a title and description for the session and submit for comment and review by the S/C.

ltem	TOPICS	Author (s)	Author	Notes	Comments
No.			Sponsor		
1.00	Ethylene Cracking Heater Troubleshooting Tutorial	Brian Sullivan	Jorge Blanco	Brian has submitted his abstract.	Jorge will ask Brian to review and submit final abstract
2.00	Cracking Furnace fuels supply - design, operational and maintenance issues. Improvement potential.	Dan Barnett	Jorge Blanco		Dan will shorten his abstract and submit final copy
3.00	Maintenace practices in blancing coils for improved reliability	Perwez Shaikh	Dan Barnett	Liesga has not submitted its abstract	Dan Barnett and Perwez Shaikh have scheduled to talk aobut this paper
4.00	Convection Cleaning with robotic equipment	Mike Watson		During today's S/C meeting Tubetech description submitted earlier was read. Mike Watson called in during webcoference and reviewed his slide show sales presentation.	Jorge will work prepare abstract (review with Dan) and submit to TubeTech for approval.
5.00	Cracking Furnace Line Flushing Pre-commissioning	Ross Perchuk, Michael Pelton	°		Mike Pelton will review and submit final copy.
6.00	Cracking Furnace Pre-Commissioning	Robert Clauss	Paul van Helmond	Paul van Helmond submitted abstract LyondellBasell will coordinate with Linde on the 2 pre-commissioing papers	Paul will review abstract with Robert Clauss and submit final copy
5.00	S CR Maintenace		Jorge Blanco, Dan Barnett, Paul van Helmond, Mike Pelton		Mike where does LyondellBasell stand? What are the catalyst supplier interest? Linde- and Ineos can't suport this topic.—

Meeting Adjourned. 10:50 am