


Meeting Minutes

Meeting Held: November 2nd, 2018

Subject: EPC Rotating Equipment Subcommittee Meeting (2018/19 Season)








Attendees:

Shane Harvey - Elliott	Smitha Vadrevu - McDermott	Seth Kennedy - Dupont
Kevin Kisor - Man Turbo	Clayton Finney - BHGE	Shadi Gilke - INEOS
Rushi Gandhi - LINDE	Jeff Castetter - SUEZ	

Item No.	Report	Action Required	
		By	Date
1	Safety Moment Review of Previous MOM		
2	EPC heads per the following: Chair – Shane Harvey (sharvey@elliott-turbo.com) Co-Chair – Clayton Jurica (clayton_jurica@mhicompressor.com) Secretary – Smitha Vadrevu – McDermott (smitha.vadrevu@mcdermott.com)		
3	2019 Spring Meeting and 15th Global Congress on Process Safety New Orleans, LA – Hilton Riverside <ul style="list-style-type: none"> - Call for Abstracts Opens – June 29th - Call for Abstracts Closes – November 12th - Abstracts Accepted/Rejected – December 14th - Draft of paper due for review – March 1st 2019 - Final paper due for review and inclusion in pre-conference proceedings – March 8th 2019 - Draft slides are due – March 15th 2019 - Conference in New Orleans – March 31-April 4th, 2019 		
4	<ul style="list-style-type: none"> - Spring 2018 EPC Review of Feedback & Ideas of 2019 Topics <ul style="list-style-type: none"> o Feedback Forms <ul style="list-style-type: none"> ▪ Reach out to potential authors who expressed interest in feedback forms ▪ Review subjects suggested in feedback forms ▪ Committee will reach out to all feedback contacts to see their interest in participating ▪ See Appendix A – Feedback from Spring 2018 		
5	Potential Topics for Abstracts <ul style="list-style-type: none"> - Reliability – Points of failure <ul style="list-style-type: none"> o Outage planning o How to manage data (Inspection, Repair, etc) - Anti-Fouling – (ExxonMobil & MHI Abstract submitted) <div style="text-align: center;">  MHI XOM Abstract_81718.pdf </div>		

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	<ul style="list-style-type: none"> - Challenges with Compressor Start-up/Dry out runs with dissimilar MW gases than the process gases (Elliott's abstract submitted) <div data-bbox="370 451 435 514"></div> <p>Compressor Dryout Elliott Group Abstra</p>		
	<ul style="list-style-type: none"> - Multidisciplinary Teamwork Identifies a Machine Performance Issue in an Ethylene Process Gas Compressor (Abstract by Huntsman and SUEZ) <div data-bbox="370 676 435 739"></div> <p>Multidisciplinary Teamwork Identifie:</p>		
	<ul style="list-style-type: none"> - Improved coatings to Efficiently Prevent Fouling in Centrifugal Compressors (Abstract by BHGE) <div data-bbox="370 900 435 963"></div> <p>BHGE Abstract.pdf</p>		
	<ul style="list-style-type: none"> - Digital Ethylene Plant: The Convergence of Process and Operational (Abstract by BHGE) <div data-bbox="370 1125 435 1188"></div> <p>Digital Ethylene Plant - The Converge</p>		
	<ul style="list-style-type: none"> - Evolution of Water Injection systems to improve cracked gas compressor reliability (Abstract by Technip Stone & Webster Process Technology, Inc) <div data-bbox="370 1350 435 1413"></div> <p>Technip CGC Temperature Suppre</p>		
	<ul style="list-style-type: none"> - Consideration & recommendations for Ethylene Producers when specifying API Standard 692 (Abstract by Elliott Group) <div data-bbox="370 1575 435 1638"></div> <p>Elliott API 692 topics Abstract.pdf</p>		
	<ul style="list-style-type: none"> - High Cycle Fatigue Steam Turbine (Abstract by INEOS and Elliott) <div data-bbox="370 1766 435 1829"></div> <p>High Cycle Fatigue Steam Turbine.pdf</p>		

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	<ul style="list-style-type: none"> - Turbo show Papers that weren't selected – Reach out Brian P (Elliott's rep for turbo show to see if they can share anything). - Turbo expanders <ul style="list-style-type: none"> o LINDE to follow up, GE to follow up (Smitha to follow up) - Ethylene Product Pump – Lyondell <ul style="list-style-type: none"> o Mechanical Seals upgrades – Bryan Barrington to provide updates - Large Turbines – Mega Ethylene <ul style="list-style-type: none"> o MHI – Clayton is working on it (Check) - EEPD October 2018 – Croatia (Could utilize papers) Jim Saccone indicated BHGE is participating and will provide updates - McDermott Bloomfield – Reached out to Aivars Krumins. Smitha to follow-up - Turbo papers – Reverse rotation on ethylene plant trains – Prospective abstract (Nov 6th TBD) - How to submit abstracts – Important links https://www.aiche.org/conferences/aiche-spring-meeting-and-global-congress-on-process-safety/2019 https://aiche.confex.com/aiche/s19/cfp.cgi (Select "Topical 4: The 31st Ethylene Producers") https://aiche.confex.com/aiche/s19/t4/papers/index.cgi?username=547311&password=151781 (Select "T4000 Ethylene Plant Rotating Equipment - Oral Session") 		
6	<p>Future Meeting Dates - EPC Subcommittee Meeting</p> <ul style="list-style-type: none"> - Nov 30th – McDermott to host the meeting. Meeting invite to follow 		
7	<p style="text-align: center;"><u>Ethylene Producers Committee</u> <u>Anti-Trust Agreement</u></p> <p>No activity of the Committee shall involve the exchange, collection or dissemination among competitors of information, or be used for the purpose of bringing about or attempting to bring about any understanding or agreement, written or oral, formal or informal, express or implied, among competitors with regard to costs, prices or 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.</p>		

Appendix A:

#5a	"Really good; liked bringing in operator; also, lots of examples!"
#5b	"Very good! he's a good speaker!"
#5c	"Very good subject! Too many acronyms; can it work for other CV's?"
#5d	"Subject is too common!"
#5c	"What needs to be installed physically to monitor?"
\$5c	"Not an area relevant to me; so I learnt a lot!"
#5d	"A bit too much info presented – hard to keep up!"
#5d	"Excellent presentation – good job covering topic w/o becoming sales pitch!"

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#5a	"More details of implementation required!"
#33b	"If it was a "101" course, could have been more technical!"
#33c	"More of an advertisement or history; not really technical/problem highlights!"
#33d	"Very relevant, timely, insightful!"
#33c	"Nice summary of recent improvements!"
#33d	"Energy impact? Cost ratios?"
#33a	"Best paper ever on wash oil!"
#33d	"I want one!"
#33d	"Thanks!"

Some suggestions for future papers:

FROM SESSION [5]: "Reliability and Operability of Rotating Equipment in Ethylene Plants Session" Monday, April 23, 2018 09:30 AM - 11:30 AM; Orlando World Center Marriott- Room: Palms Ballroom ROYAL				
MHI Machines difficulties and wrong design and how to deal with for example impellers issues and high delta P in extraction	NASER	SABIC SAUDI ARABIA	Tel: Fax: Email:	
- Water injection programs for compressors - Vibration mitigation tactics Other possibilities other than fouling	Tiffany Hester	Sasol	Tel: 601-528-0042 Fax: E-mail: tif.hester@gmail.com	
Furnace mechanical issues, metallurgy, welding, refractory, counter-weights, sealing from air ingress, etc.	Cesar Torres	Ineos Olefins & Polymers 2 Miles South FM 2917 on FM 2004 Alvin, TX 77511	Tel: 281-581-3122 Fax: Email: cesar.torres@ineos.com	
Effect of water chemistry on CGC fouling	Mark Whitney	Linde Engineering	Tel: 281-717-9083 Fax: Email: mark.whitney@linde.com	
Best practices regarding improved rotating equipment reliability	Nathan Reed	Westlake Chemicals	Tel: Fax: Email:	
- Compressor troubleshooting Inspections of rotating equipment	Kate Heymans	Dow Chemicals	Tel: Fax: Email:	
Need to see more field experience building on the current assets capability improvement without major hardware modification	Hussain Al Zahrani	SABIC/Sharq	Tel: Fax: Email: zahraniha@sharq.sabic.com	
Solids carry over to the steam used to run those compressors	Fahad Al Milali	SABIC Saudi Arabia - Jubail	Tel: +966-5-4646-3608 Fax: Email: alfahad3608@hotmail.com	

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Surface condenser replacement overview, construction challenges etc	Megan Finstad	Dow Chemicals	Tel: 780-998-8822 Fax: Email: mfinstad@dow.com	
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FROM SESSION [33] "Ethylene Plant Rotating Equipment Panel Discussion" Monday, April 23, 2018 2:00 PM - 5:00 PM; Orlando World Center Marriott- Room: Palms Ballroom ROYAL				
Micheal Smith	ExxonMobil	Tel: 225-331-0122 Fax: Email: micheal.e.smith@exxonmobil.com		
Marty Novak	Huntsman	Tel: 409-723-3425 Fax: Email: marty_novak@huntsman.com		
FROM SESSION [78] "Ethylene Plant Operations Session", Tuesday, April 24, 2018: 8:00 AM - 11:00 AM; Orlando World Center Marriott- Room: Palms Ballroom SAGO				
Industry operating experience with SCR in ethylene furnaces	David Spicer	ExxonMobil Chemical 4500 Bayway Drive Baytown, TX 77520	Tel: 346-259-2660 Fax: Email: david.b.spicer@exxonmobil.com	
All troubleshooting subjects are greatly appreciated	Gwen Kelley	Shell	Tel: Fax: Email: gwen.kelley@shell.net	

Finally, some volunteers for future papers:

FROM SESSION [5]: "Reliability and Operability of Rotating Equipment in Ethylene Plants Session" Monday, April 23, 2018 09:30 AM - 11:30 AM; Orlando World Center Marriott- Room: Palms Ballroom ROYAL				
Yes; MHI machines and machinery concerns in olefin plants	Naser	SABIC Saudi Arabia	Tel: Fax: Email: mutairina@sharq.sabic.com	
Yes; Subjects: - <ul style="list-style-type: none"> New anti-foulant chemistries Compressor anti-foulant strategies Nitrogen free anti-foulants Innovations in Furnace sulfiding agents 	James Ondyak	Dorf Ketal 11200 Westheimer Rd. Suite 400 Houston, TX 77042	Tel: 713-419-3376 Fax: Email: james.ondyak@dorketal.com	

FROM SESSION [33] "Ethylene Plant Rotating Equipment Panel Discussion" Monday, April 23, 2018 2:00 PM - 5:00 PM; Orlando World Center Marriott- Room: Palms Ballroom ROYAL				
7.	Compressor fouling and coatings	Francesca Monti	BHGE	Tel: Fax: Email: francesca.monti@ge.com
8.	Unable to consider until after turnaround ending July	Marty Novak	Huntsman	Tel: 409-723-3425 Fax: Email: marty_novak@huntsman.com

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