## **EPC MAINTENANCE & RELIABILITY SUBCOMMITTEE MEETING**

Location: MS Teams Date: January 10<sup>th</sup>, 2024

Minutes Written By: Martin Stoessel

## **MEMBERS ATTENDING:**

Martin Stoessel (ARVOS) Wei Sun (ARVOS) Mark Karrs (Becht) Dane DeRouen (BASF) Tyler Cunningham (INEOS) James Cleavinger (CP-Chem) Tom Garza (Knighthawk) Aravind Subramani (Indorama) Shailendra Inamdar (Linde) Keith Wade (Zecco) Sanjeev Kapur (Apex)

The meeting of the EPC Maintenance and Reliability Subcommittee (SC) was hosted by Martin Stoessel in MS Teams. The meeting was called to order at 10:03 AM CST.

## **Proceedings:**

- I. Called to order, reviewed agenda, and read anti-trust statement.
- II. Reviewed minutes of the December 13<sup>th</sup>, 2023, meeting.
  A motion to approve the minutes as amended was made by Jimmy Cleavinger, with a second by Dane DeRouen. The minutes were approved as read.
- III. Papers and Presentations
  - Schedule for presentations was shared by Tom Garza

minu	minutes/paper (default duration)									
Start Time	Preferred Format	Duration		Group	Order Within Group	Accept	Reject	Transfer <u>All</u> <u>None</u>	Entry	
2:30 PM	Break					А			(id=680367) Welcoming Remarks .	
2:35 PM	Oral Only					А			(Id=679756) PREDICTING THE REMAINING LIFE OF CRACKING COILS: AN APPROACH BASED ON MATERIAL DEGRADATION . R. Andrade, M. J. G. Dessi, W. A. Silva, and D. M. Guarnieri	
3:00 PM	Oral Only					А			(id=679759) CARBOWALL SYSTEM CASE STUDY AT PETROBRAS REFINING REPLAN IN 2010 AND RPBC IN 2023 . J. C. Belotti, L. Henrique Rodriguez de Mattos Gobbo, M. Guilherme Camparotto, L. Colombo, M. Gorby, and J. Smith	
3:25 PM	Oral Only					А			(id=679758) ADVANCES IN PSA VESSEL LIFE MANAGEMENT . S. Altstadt, A. Karstensen, and K. Picioccio	
3:50 PM	Break					А			(id=680005) Break .	
4:10 PM	Oral Only					А			(id=678296) Selecting Location of IR Cameras for Thermal Imaging of Ethylene Cracker Furnace in a Brownfield Project . R. Limaye, J. Cross, and Z. Lin	
4:35 PM	Oral Only					А			(id=678167) Enhancing Ethylene Cracker Radiant Tube Integrity through Innovative Robotic Inspection . M. Zhang	
5:00 PM	Oral Only					А			(id=679922) FAILURE OBSERVED AT CROSSOVER PIPING OF PYROLYSIS FURNACE AND PATH FORWARD . B. Prajapati and J. Cleavinger	
5:25 PM	Break					А			(id=680368) Concluding Remarks .	

- Theme for conference: *Inspection*
- Tom to send additional guidelines for papers and presentations

- Topics:
  - PREDICTING THE REMAINING LIFE OF CRACKING COILS; AN APPROACH BASED ON MATERIAL DEGRADATION
    - i. Authors: R. Andrade, M. Dessi, W. Silva and D. Guarnieri
    - ii. Sponsor: T. Garza
    - iii. Reviewer: L. Baldesberger
    - iv. Status: Paper not reviewed yet. Tom to reach out
  - CARBOWALL SYSTEM CASE STUDY AT PETROBRAS REFINING REPLAN IN 2010 AND RPBC IN 2023
    - i. Authors: J.C. Belotti, L. Columbo / M. Camparotto
    - ii. Sponsor: D. DeRouen
    - iii. Reviewer: T. Garza
    - iv. Status: Paper reviewed, comments collected and sent back to the author. Everything on schedule
  - ADVANCES IN PSA VESSEL LIFE MANAGEMENT
    - i. Authors: S. Altstadt, A. Karstensen and K. Picioccio
    - ii. Sponsor: M. Karrs
    - iii. Reviewer: K. Sprague
    - iv. Status: Paper reviewed by Mark but not sent to Kevin. Scheduled for next week.
  - SELECTING LOCATION OF IR CAMERAS FOR THERMAL IMAGING OF ETHYLENE CRACKER FURNACE IN A BROWNFIELD PROJECT
    - i. Authors: R. Limaye, J. Cross and Z. Lin
    - ii. Sponsor: T. Garza
    - iii. Reviewer: M. Stoessel
    - iv. Status: No paper reviewed yet. Tom to reach out.
  - ENHANCING ETHYLENE CRACKER RADIANT TUBE INTEGRITY THROUGH INNOVATIVE ROBOTIC INSPECTION
    - i. Authors: M. Zhang
    - ii. Sponsor: T. Garza
    - iii. Reviewer:
    - iv. Status: No paper reviewed yet, Tom to reach out today
  - FAILURE OBSERVED AT CROSSOVER PIPING OF PYROLYSIS FURNACE AND PATH FORWARD
    - i. Authors: B. Prajapati and J. Cleavinger
    - ii. Sponsor: M. Karrs
    - iii. Reviewer: W. Sun
    - iv. Status: Paper was sent during the holidays and comments were sent by Mark, Wei is pending.
- Draft Papers latest by End January  $\rightarrow$  Sponsors to follow up
- Final Papers to the SC latest by Feb 15<sup>th</sup>, 2024
- Presentations March  $11^{th} \rightarrow$  final approval in EPC meeting March  $13^{th}$

- IV. Technical Discussion
  - Surveys will be distributed by the lead person; participation is voluntary, and the results will be shared anonymous.
  - Spring Hangers support and adjustment history (on Hold)
    - Suggested by Kevin Sprague, Handled by Carl Matherne
      - i. Kevin to contact Carl on status and/or send out survey No update
    - Poll due in November and results to be discussed in December → Poll was not sent out
  - Furnace Refractory Inspection and Maintenance
    - Suggested by Jimmy Cleavinger, Handled by Henry Trahan
    - Poll due in January and results to be discussed in February → Martin Stoessel to reach out to Henry
      - i. What is everyone doing?
      - ii. Infrared external inspection?
      - iii. Refractory Inspection expertise in-house or third party
      - iv. What type of lining do you use and what is the expected life time

## • Burner Maintenance and Inspection Practices?

- Suggested by Robert Pritchett, Handled by Keith Wade
- Poll due in February and results to be discussed in March
- Potential vendor talk  $\rightarrow$  Bob to check and come back with feedback
- V. Next Meetings
  - Next meeting is on February 14<sup>th</sup>, 2024
  - Next meeting is on March 13<sup>th</sup>, 2024
  - Important dates for the SC:
    - Draft Papers latest by End January
    - Final Papers to the SC latest by Feb 15<sup>th</sup>
    - Final Presentations March 11<sup>th</sup>
  - Important dates from EPC Main Committee:
    - Friday, January 12, 2024 Comments from Chairs Due
    - Friday, January 12, 2024 All info in Confex for Invited Sessions & Keynotes
    - Wednesday, January 15, 2024 Final Program Posted
      - Sunday, March 10, 2024 Paper Submission Closes
    - Sunday, March 24-28, 2024 2024 AIChE Spring Conference
  - Meeting at KnightHawk office with Lab tour possible → pushed after EPC and Kick-off
- VI. Meeting Adjourned @10:28 am CST