

## Contaminants & Impurities in Ethylene Plants Subcommittee – August 24<sup>th</sup>, 2023, Meeting Minutes

### Team Members

Robert Alvers	X	Scott Hailey	X	Ross Perchuk	
Andre Bernard	X	Omar Hamid	X	Matt Pretz	
Joice G. Boll		Dwight Hines		Debby Rossana	X
Jessica Burgin		David Hood		Yong Wang	
Mark Davis	X	Joe Lally		Mark Whitney	X
Sherri Elder	X	Vinay Naik	X	Lisheng Xu	X
Alex Fritz	X	Jennifer Nill			

### 1. Anti-trust statement

*“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.”*

### 2. Updates from Main EPC Committee & AIChE

- Email from Daryl Bitting expressing concerns relative to common topics between Contaminants & Impurities and Technology & Fundamental Sessions. Andre replied that we are planning on 2 to 3 papers related to contaminants on pyoil from plastic waste with 2<sup>nd</sup> half of the session on various topics related to contaminants.
- Access to confex is confirmed for Sherri & Andre.
- Debby does not have access to confex for the tutorial. (Andre to check with AIChE).
- Speakers for the tutorial have already been selected, abstract upload in confex is require to ensure that the topics appears on the conference program.
- No abstracts have been uploaded in confex yet.

### 3. Key Dates

- Call for abstract is currently open.
- Call for abstracts closes on October 25<sup>th</sup>, 2023.

- Paper acceptance/rejection -> 2<sup>nd</sup> week of December
- Draft Program available for review 1<sup>st</sup> week of January
- The Program goes live 2<sup>nd</sup> week of January
- Paper submission Close/ Presentation -> 1<sup>st</sup> week of March
- Virtual Dry Run -> 2 to 3 weeks prior to the conference
- The Conference will be between March 24<sup>th</sup> to 28<sup>th</sup> 2024, in New Orleans
- T4060 Contaminants and Impurities in Ethylene Plants: Tuesday March 26, 2024, 8:00 AM – 11:00 AM.
- T4095 Contaminants Tutorial: Tuesday March 26, 2024, 13:00 to 17:30

#### 4. Tutorial on contaminants (Debby)

- Questions & comments relative to Jay Gorawara adsorbents outlines were sent to him, for which he replied. (Andre to forward Jay's replied email to the team).
- Debby has put a draft write up together for the chemistry section, which is still under development.
- The tutorial has been moved to Tuesday afternoon (13h00 to 17h25 with break at 15h20) to avoid conflict with the safety session.
- The tutorial has 3 topics.
  - Adsorbents
  - Filtration
  - Chemistry

#### 5. Ideas for 2024

**Digital anti-fouling solution suite for ethylene plants – (Optimizing the 5- 10 year run cycle)** – Baker Hughes paper. (Lisheng to monitor progress)

- The abstract will be submitted to the Rotating Equipment session as it is a better fit for this topic.
- Will remove the topic from our idea list.

#### **Advances in Purification of Monomers for Petrochemical and Polymerization Applications**

- Honeywell – UOP Abstract submitted to the 2023 session but rejected due to a filled-up session. Honeywell - UOP will re-submit an abstract (Scott to monitor progress)

**Feedstock CO<sub>2</sub> Capture – Amine Technology.** No update (Omar to follow up)

- Will still investigate the idea but low probability of the idea progressing to a paper for the 2024 conference.

**Oxidative coupling of methane to ethylene.** No update, low potential. (Jessica to confirm)

### **Pipeline Contaminants (glycol, drag reducer etc.)**

- Joe is trying/ persevering in getting gas company to contribute. (Joe to keep exploring)

### **Impact of higher volume of ethane cracking on Primary Fractionator - Industry Experience/ Impact on CGC.**

- Joice indicated that one producer showed interest and could potentially collect good data during their next turnaround for which the schedule would not align with the 2024 EPC. The idea has more potential for 2025 and will be move on the standby list. Joice to keep contact for potential 2025 paper.
- Joice offered to put a paper on her own for this topic if we get short of papers. To be re-evaluated as we approach the abstract submission closing date.

### **MEA & NH3 issues**

- David Hood could put a paper together but cannot guarantee to secure co-authorship. (Andre to follow up with David)

### **Contaminants Associated with Unusual Feedstock (ex. Ethanol, waste coal, etc.)**

- On ethanol, it is suggested to reach out to Braskem and/ or Technip (Hummingbird technology). Jessica and Joice may have contacts at Braskem (Andre to follow up with Jessica & Joice)
- Methanol to Olefins – Lummus may have some experience. Suggest contacting Jose de Barros at Lummus). (Omar to follow up).
- Still entertaining the idea of a subcommittee paper (Omar to develop the idea, needs subcommittee volunteers).

### **Pye Oil from Plastic Waste**

- Potential follow up paper from University of Ghent. Yong touched based with Professor Van Geem at U of G but hasn't received any confirmation from U of G yet. (Yong will follow up)
- Potential Paper on Silicon Removal. Silicon as a contaminant in plastic waste recycling. As communicated by Jennifer by email, CPChem is

actively working with vendors to write this paper and are enthusiastic about it. (Jennifer to monitor progress)

- Naphtha blending with Pyoil from plastic waste – any issues. Joe indicated that the catalyst group at Evonik has done some work, which could be a potential paper with focus on chlorides removal when blending with naphtha. (Joe to follow up)

## **6. Technical Discussion**

### **Contaminants Database Procedure (Ensure Continuity)**

- A rough draft procedure has been shared with Alex & Ross.
- Changes in the EPC website have caused the database hyperlink to no longer work. Will work on updating the hyperlink.

## **7. Other Business**

None

## **8. Schedule Next Meeting**

Next Meeting September 21<sup>st</sup>, 2023, at 15h00 CST