Contaminants & Impurities in Ethylene Plants Subcommittee – June 22nd, 2023 Meeting Agenda

Team Members

Robert Alvers	**X**	Scott Hailey	**X**	Ross Perchuk	**X**
Andre Bernard	**X**	Omar Hamid		Matt Pretz	
Joice G. Boll	**X**	Dwight Hines		Debby Rossana	**X**
Jessica Burgin		David Hood		Yong Wang	**X**
Mark Davis		Joe Lally	**X**	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

The main committee met last Thursday, updates from the meeting below:

- Session Chair & Co-Chair names needed. This has already been provided by our subcommittee through the minutes of the May meeting (no action needed).
- Access to AIChE confex to be provided to Chair & Co-Chair soon.
- The Call for abstract is currently open & will close on October 25th. The 2024 AIChE Spring Meeting is advertised on the website but there is currently no link for paper submission. (Andre to follow up).
- The Conference will be between March 24th to 28th 2024, in New Orleans.

3. Tutorial on contaminants

- All the targeted participants have been contacted by email. Except for Jay Gorawara (UOP), they all have responded favorably to the idea. The tutorial is currently being framed as described below:

    - Contaminants removal by filtration. Ali Arshad and Emmanuelle Biadi (Pall) have agreed to participate.
    - Minimizing impact of contaminants through chemistry. Debby and Sherri will take over this section.
    - Contaminants removal by adsorption/ molecular sieve. Jay Gorawara (UOP) showed interest through discussion with him at the last EPC. Scott will follow up to check if Jay is receiving the emails that were sent and validate/ confirm UOP's participation. This might be done with different speakers. Andre will share some of the email exchange with Scott.

- Approximately 45 minutes will be allocated for each topic with about 5 minutes for questions and a 20 minutes break.

- The Technology Subcommittee is planning a tutorial on adsorbents and was considering a co-session with our proposed tutorial. Given that our tutorial agenda is already set, it is the preference of this subcommittee to run it as a separate one. We will need to ensure that there are no repeats on the topic of adsorbents. Mark will follow up on the idea of 2 separate tutorials with the Main Committee and Technology.

- Debby will be Chairing the tutorial with Jessica as Co-Chair.

4. Ideas for 2024

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. There is still Interest in presenting. However, there are issues in finding a producer willing to participate. (Scott will monitor progress)

Potential Contaminant from On Purpose Propylene Catalytic De-Hydrogenation.

- Dow technology. Idea entertained for 2023 but Dow was not ready to share in the public domain. Will review if there is potential for 2024. No update (Mark D. and Matt to follow up).

Feedstock CO2 Capture – Amine Technology. No update (Omar to follow up)

Oxidative coupling of methane to ethylene. No update (Jessica to confirmed status with Dave Smith)

Pipeline Contaminants (glycol, drag reducer etc.)

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

C3/C4's Recycle to Furnace No update (Confirm status/ potential with Yong)

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

- Joice has been in touch with 2 producers, but no confirmation yet. (Joice to follow up)

MEA & NH3 issues

- Could probably extend the idea to NOx gums. (D. Hood, Dwight, Debby to check potential paper) No update.

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

- Omar sent an email with a proposed outline for the paper. We are looking at a subcommittee paper providing a high-level overview based on available information published in the public domain to avoid any IP issues with our respective organization. Omar and Ross are currently driving this idea, but they might need help as they further develop the idea. (Omar & Ross to continue progress – help/ support to be discussed in future meetings)

Pye Oil from Plastic Waste

- Potential follow up paper from University of Ghent. Yong touched based with Professor Van Geem at U of G and will monitor progress.

- Potential Paper on Silicon Removal. Silicon as a contaminant in plastic waste recycling. CPChem working with other companies (Axens, and others). No update (Jennifer to follow up)

- 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)

- Industry experience in processing Pyoil from plastic waste. Robert followed up with Lyondell, some information/ experience can be shared but still need to understand how much and if it would fit a 20 minutes

presentation/ paper. Jennifer is supposed to check about the CPChem experience (Jennifer/ Robert to follow up)

- **Lead oxide arsine alternative for arsine from cracked Gas.** Scott is waiting for feedback (Scott H to follow up)

5. Technical Discussion

Contaminants Database Procedure (Ensure Continuity)

- Alex and Ross have volunteer to get involve with the database. Others interested, Email Andre. Andre to draft a procedure and communicate it with Alex and Ross for review.

6. Other Business

None

7. Schedule Next Meeting

Next Meeting July 20th, 2023, at 15h00 CST