

Contaminants & Impurities in Ethylene Plants Subcommittee – July 28th, 2023 Meeting Minutes

Team Members

Mark Davis	X	Yong Wang	X	Robert Alvers	X
David Smith	X	Joe Lally	X	David Hood	X
Sherri Elder	X	Andre Bernard	X	Ross Perchuk	X
Mark Whitney	X	Scott Hailey		Lisheng Xu	X
Dwight Hines		Jennifer Nill		Debby Rossana	X
Omar Hamid	X				

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. Key Dates

- Call for abstract is currently open
- Call for abstract closes Oct 25th
- Paper acceptance/rejection -> Some time in December
- Paper submission -> March
- Conference -> March 12th to 16th in Houston

3. Updates from Main EPC Committee

Next Main EPC Committee in August.

The Main EPC Committee approved our subcommittee name change to “Contaminants and Impurities in Ethylene Plants”.

Chair (Andre) and Co-Chair (Sherri) do not have access to confex yet. Mark W. will follow up with AIChE.

4. 2023 Roster

- 2023 Roster contacts document has been updated and issued after June meeting.

5. Brainstorm Ideas for 2023

Potential Contaminant from On Purpose Propylene Catalytic De-Hydrogenation.

- Dow was not ready to share material in the public domain last year. Will reach out to Dow to check if the status has changed. (Mark D. to Follow Up).

Popcorn Polymer – TCP Incident.

- Reached out to Ed Mohundro. Ed indicated that he cannot share what he knows until CSB issues its final report. Ed was given information that the report might be issued October/November 2022. Ed is supportive for a paper at the EPC. The timelines for the CSB report will make it tight for getting a paper for the 2023 session. Will keep the paper idea on standby for the 2024 EPC and keep in touch with Ed.
- There is potential for a paper on popcorn polymer by NOVA. (Andre to follow up)

Feedstock CO2 Capture – Amine Technology/ Sensitivity to impurities.

- Unsuccessful in reaching out to Amine Technology suppliers last year. Will try again this year. (Omar to follow up)

Oxydative Coupling of Methane to Ethylene

- Unsuccessful in reaching out to potential authors last year. Will try again this year. Dave S. is scheduled to meet with potential authors next week. (Dave S. to follow up)

Pipeline Contaminants

- Unsuccessful in reaching out to gas company. Will try again this year. (Joe to follow up)
- Will try to reach out to NOVA Joffre relative to their experience with contaminants in pipeline. (Andre to follow up)

Feedstock Contaminant Database & Specific Contaminant

- Subcommittee Abstract submitted last year as contingency.
- Will reconsider the idea for this year. (No action required at this time, will keep it as contingency)

Radon – NOVA Experience

- Paper accepted in 2022 but transfer to the safety session
- Authors pulled out of 2022 EPC due to issues with travel approvals.
- Authors still interested in presenting. Will keep the idea but may transfer later to the Safety session. (Andre to follow up with authors)

Contaminants from Plastic Waste Base Feedstocks

- Ghent University indicated interest in doing another paper. (Yong to follow up)
- Hydro processing for cleaning up the feed. (Omar to follow up with potential authors). Omar has been talking to Sulzer but no commitments at this point.
- Baker Hughes indicated interest in presenting a paper on plastic pyrolysis oil and its chemical treatment. (Lisheng to follow up)

Contaminants associated with unusual feedstock (ex. Ethanol, Waste & others)

- Survey – Literature (could potentially be done within the subcommittee). Andre has some ideas for a subcommittee paper. Needs to further develop the idea. To be discuss at next meeting
- Collaboration from different players. Need further discussion

Impacts from Higher Volume of Ethan Cracking in Mix Feed Cracker

- Many papers between 2010 to 2020 on Impact of Ethane cracking in Mix Feed Cracker. Papers were mostly theoretical. Plant data is now available and could make an interesting topic
- Contaminants such as Pytar, PNA's, Indene, Styrene
- Success & War stories with flux oil
- Focus on Primary Fractionator given the number of papers presented previously. Idea is to compare theory to practice.
- Discussed the approach to the paper, survey vs producer experience (war/ success stories). D. Smith to follow up with Nalco experience.
- Mark D. will follow with Dow relative to plant experience.

Paper on N₂O & NO – Linde

- Success story at Linde.
- Interesting topic as it discussed contaminants for which we have little data if any (new contaminant for the database).
- Mark W. to produce an abstract

DMS substitute vs process impacts

- DMS availability tight. Producers are switching to DMDS and others. (Joe & Dave S. to follow up)

MEA & NH₃ issues

- Quench system pH control with MEA vs NH₃ contamination. (Deb to investigate)
- Dwight presented a good paper on that topic at a previous EPC. (Dave H. to reach out to Dwight)

6. Technical Discussion

- None currently

7. Other Business

- None

8. Schedule Next Meeting

Next Meeting Aug 25th, 15h00 CST