

Feedstock Contaminants Subcommittee – August 26th, 2021 Meeting Minutes

Team Members

Mark Davis	X	Yong Wang	X	Robert Alvers	X
David Smith		Joe Lally	X	David Hood	
Sherri Elder		Andre Bernard	X	Ross Perchuk	X
Mark Whitney	X	Ali Abbaspour	X		
Dwight Hines		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. AIChE Confex

Chair & Co-Chair have been updated in Confex. Access to confex was also confirmed by Sherri and Andre.

There are no current abstracts submission in confex.

3. Updates from Main EPC Committee

The main committee is currently searching for the speaker dinner location. They are still planning for an in-person conference but subject to change depending on the evolution of the pandemic

4. Key Dates

Current focus is on:

Call for Abstracts closes November 1st, 2021

Other key dates below:

Accept/ Rejects Abstracts: December 6th, 2021

Preliminary Acceptance Notices Sent: December 20th, 2021

Final Acceptance/ Rejection Notices Sent: January 24th, 2022

2022 AIChE Spring Meeting: April 10 to 14th, 2022

We will be planning a dry run 2 to 3 weeks prior to the conference.

5. Review Paper Ideas

- **Dihydrodicyclopentadiene found in C9-200/ Wash oil recovery** – Potential for a joint paper. Followed up with KBR & NOVA R&D. NOVA lab data & comparison between plants suggest formation of dihydrodicyclopentadiene (DHDCPD) from partial hydrogenation of DCPD in the aromatic unit hydrotreater. KBR had previously conducted process simulation vs recovery of wash oil in the CGC and demonstrated by process simulation inability to separate DHDCPD from wash oil in the distillation train of the aromatic unit. Understanding the potential fouling propensity of DHDCPD recycled to the CGC would add value to this potential paper. Andre to follow up and coordinate draft abstract. Joe to check potential participation of Evonik relative to the chemistry and potential fouling propensity of DHDCPD.
- **NOVA paper on sulfur removal**. Author pulled out from 2021 EPC due to time constraint in getting approvals. Discussion with author reveal potential legal constraint due to third party involvement – Low likelihood of resolving those issues within the timelines of the 2022 conference. Suggest keeping the idea in the standby list.
- **CS₂ rise from H₂S scavenger on shale** – Dorf Ketal. This paper was on the 2020 session agenda, but Dorf Ketal pulled it out due to uncertainty of the conference. They withdrew the paper for 2021 (could not get management approval). They are interested in presenting a paper, but they reported that R&D work is not fully complete and some unknown remains. Depending on the value of the material that can currently be presented, the approach of a 1st paper with a follow up paper in 2023 can be considered. It is suggested to get a revised abstract from Dorf Ketal so the team could evaluate the value of the material for the 2022 session. Status unchanged,

Sherri contacted Dorf Ketal but has not heard back. She is still trying to reach out.

- **Pipeline Contaminants (glycol, drag reducer).** We had difficulties in getting commitments from companies that were contacted. Joe will follow up with Enterprise in Kinder Morgan. Same status

- **Plastic Waste:**

Contaminant Treatment – University Ghent agreed to submit a paper for the 2022 session. Yong will monitor progress

Shell Experience – Ross indicated potential for a paper on plastic to chemicals. Better definition of the paper expected within the next 2 weeks. Ross will follow up progress.

LyondellBasell Experience – Robert indicated potential on the R&D side but with information limited to disclosure of a few contaminants and compositional range. There is concern that the content might be too limited for meeting a typical paper. There is no interest at this point to present data from plant operation. However, there is interest in presenting data on biodiesel cracking, which would be a better fit for the technology session as the paper would not focus on contaminants.

Dow Experience – Currently no desire from Dow for presenting on that topic.

- **CO2 Capture vs**

- Amine Process -> MEA/ DEA Celanise/ DOW/ BASF/ Huntsman/ Eastman. DEA process – Mark will check with Dow for Amine Technology vs contaminants. Ross to check with engineering at Shell. Andre to check with amine suppliers.

- Lanzatech -> CO2 to ethanol. Lanzatech confirm their participation. They have a few topics in mind but haven't provided details yet. Yong to monitor progress.

- Oxydative coupling of methane to ethylene – Siluria – Dave S. to follow up

- **Radon.** NOVA Industrial Hygiene got leadership support and are expected to provide an abstract in September. Andre to monitor progress

- **Radon:** Potential for Shell involvement. Ross to follow up.

- **Inhibitor residual/ measuring methods.** Debby Rossana currently working on an abstract. Dave S. to follow up progress.

Other Business

- Nothing to report

6. Technical Discussion

Discussion on improving the contaminants database. Allocation of contaminants by process area needs improvement. Certain areas have no contaminant associated with them (ex. Feed System). Other areas might not be complete. Suggest having the team member to review so that we could improve the 2022 version of the database. To be further discuss in future meetings.

7. Schedule Next Meeting

- Next meeting schedule for September 23rd, 15h00 (CT)