

# Contaminants & Impurities in Ethylene Plants Subcommittee – June 23<sup>rd</sup>, 2023 Meeting Agenda

## Team Members

Mark Davis	X	Yong Wang		Robert Alvers	X
David Smith	X	Joe Lally	X	David Hood	
Sherri Elder	X	Andre Bernard	X	Ross Perchuk	
Mark Whitney	X	Scott Hailey	X	Lisheng Xu	
Dwight Hines		Jennifer Nill	X	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. Updates from Main EPC Committee

- Attendance from the 2022 EPC

Session #, Title, Date, Time	Session Type	1st Count	2nd Count	3rd Count	4th Count	5th Count	6th Count	Average
#5 Maintenance & Reliability 04/11/22-AM	Paper + Panel Session	97 [0937]	101 [0952]	112 [1010]	102 [1026]	93 [1104]		101
#6 Rotating Equipment 04/11/22-AM	Paper + Panel Session	39 [0935]	46 [0950]	64 [1012]	55 [1101]			51
#31 Operations 04/11/22-PM	Paper Session	120 [1420]	122 [1432]	106 [1454]	127 [1607]	131 [1621]	156 [1641]	127
#32 Energy Transition & Decarbonization 04/12/22-PM	Paper + Panel Session	78 [1417]	93 [1440]	89 [1505]	37 [37]			74
#78 Decarbonization/Circular Economy 04/12/22-AM	Paper Session	60 [0808]	84 [0839]	110 0907]	57 [0947]	126 [1010]	120 [1036]	93
#79 Feedstock Contaminants 04/12/22-AM	Paper Session	107 [0836]	107 [0849]	88 [0905]	54 [0950]	86 [1013]	79 [1039]	87
#118 Technology Fundamentals 04/12/22-PM	Paper Session	178 [1417]	191 [1442]	195 [1504]	138 [1602]	150 [1620]	148 [1635]	167
#154 General Environmental 04/13/22-AM	Paper Session	60 [0817]	76 [0845]	93 [0905]	85 [0956]	75 [1012]	65 [1039]	76
#155 Industry 4.0 in Ethylene Production 04/13/22-AM	Paper Session	48 [0814]	51 [0842]	65 [0902]	67 [0953]	65 [1009]	57 [1037]	59
#186 Safety 04/13/22-PM	Paper Session	90 [1415]	102 [1439]	105 [1503]	99 [1601]	103 [1621]		100
#194 Distillation Tutorial 04/14/22-AM	Tutorial	89 [0824]	102 [0849]	99 [0914]	84 [1007]	83 [1024]	70 [1050]	88

- **Session Name Change**

The main EPC Committee supports the name change to “Contaminants and Impurities in Ethylene Plants”. Some committee members still think that the subcommittee should focus on the contaminants from the feeds.

The team agrees to maintain a focus on feedstock contaminants. Topics related to impurities and contaminants generated within the process shall be address in a way that will not interfere or overlap with other sessions such as operation and safety. The content should focus on the chemistry.

- **Session Chair & Co-Chair for 2023**

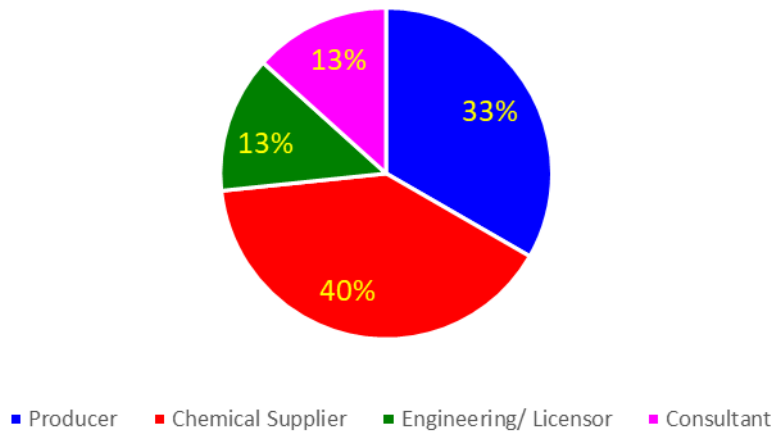
Chair: Andre Bernard  
Co-Chair: Sherri Elder

### 3. 2023 Roster

- **Membership Rules vs Open Invitation to Join Subcommittee at the end of Session**

- The split between Producers, Suppliers, Engineering/ Licensor and Consultants has been reviewed and believed well balance with strong contribution on the Producer & Chemical Suppliers side. The gap between Producers & Chemical Suppliers is cause by the difference of 1 person.

Subcommittee Membership Breakdown



- Discussed the open invitation to join subcommittee at the end of the session, as we had to reject a few requests that would have shifted

the membership balance (1 member per affiliation). An exception to the membership of Dwight Hines, who act as a 2<sup>nd</sup> rep from Suez is agreed within the team due to Dwight long time membership as a BASF rep and his expertise, which is strongly valued by the team.

- **New Members**

The team welcome 2 new members:

Debby Rossana is joining the subcommittee as a retiree/consultant.  
Omar Hamid is joining the subcommittee as an Advisian representative.

- **Update Roster**

The roster contact document will be updated and shared with the team.

#### **4. Brainstorm Ideas for 2023**

##### **Reviewed standby list from 2022**

##### **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.**

- It is suspected that the CSB might be able to present data that has been made public. Suggest focusing the paper on the chemistry aspect of the incident.
- It was stated that Dwight might have contact at the CSB. (Andre will reach out to Dwight).

##### **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. to follow up)

## **Pipeline Contaminants**

- Unsuccessful in reaching out to gas company. Will try again this year. (Joe to follow up)
- It was stated that Ghent University may have done work in that area. (Yong 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)

## **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.

## **New Ideas**

### **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)

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

- Survey – Literature (could potentially be done within the subcommittee)
- 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

## **5. Technical Discussion**

- Contaminants Database 2023 Update has been reviewed
- Revised database will be forwarded to Walter Postula (EPC Main Committee)

## **6. Other Business**

### **Important dates for 2023 EPC**

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

## **7. Schedule Next Meeting**

Next Meeting July 28<sup>th</sup>, 15h00 CST