

FINAL Minutes of June 15, 2023 Ethylene Producers' Environmental and Sustainability Sub-Committee Meeting

Following are the minutes of the June 15, 2023 Ethylene Producers' Environmental and Sustainability Sub-Committee Meeting, held via Zoom.

Attendees

Present: Troy Boley, Spectrum Environmental Solutions, LLC
Ralph Crivello, LyondellBassell
James Kendall, ExxonMobil Engineering and Technology Company
Allyson Ledet, NOVA Chemicals
Dan Lutz, Ineos
Isa Mbaraka, Dow
Andrés Muñoz Gandarillas, Neste
Nicole Roper, Shell Oil Products Company
David Smalley, BASF
Mark Ulrich, Linde Engineering Americas

Absent:

Shelby Browning, Eastman Chemical
Ted Heron, The Catalyst Group
Jacob Hilbrich, Chevron Phillips
Patti Long, Eastman
Arijit Pakrasi, Edge Engineering and Science
Gerardo Ruiz-Mercado, US EPA (AIChE Environmental Division)
Jeffrey Seay, University of Kentucky (AIChE Environmental Division)
Dick Siegel, R&B Consulting Services (AIChE Environmental Division)
Jason Trembly, Ohio University (AIChE Environmental Division)
Gary Wojnowski, BASF

Sub-Committee Membership

David Smalley has replaced Gary Wojnowski as the BASF representative on the subcommittee.

Post Meeting Note: Robert Sams, Ethylene Operations Superintendent from Shin-Tech, has joined the subcommittee.

Anti-Trust Statement

The meeting began at 9:05 am with James Kendall reading the Ethylene Producers' Committee (EPC) anti-trust statement:

No activity of the committee shall involve the exchange, collection, or dissemination of information among competitors for the purpose of bringing about or attempting to bring about an understanding or agreement, written or oral, formal or informal, express or implied, among competitors, with regard to costs, prices, 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.

Agenda

The meeting agenda was published in advance and is included below:

J. L. Kendall
July 13, 2023

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1. Reading of Anti-Trust Statement [9:02 AM]
2. Chair/Co-Chair for 2024 session [9:04 AM]
3. Review of 2023 Session [9:10 AM]
4. Discussion of Potential Topics for 2024 Environmental and Sustainability Session [9:20 AM]
 - ALG has volunteered a paper on the “key issues that ALG routinely identifies relative to the accuracy of GHG emissions data”
 - Operations Subcommittee proposal for a joint session on flare operation under EMACT
5. Date for Potential Face to Face [9:45 AM]
 - Aug 10, 2023
 - Oct 12, 2023
 - Dec 7, 2023
 - Feb 1, 2024
6. Review of Action Items [9:50 AM]
7. Important Date Reminders
 - Jun 20, 2023 – Session and Session Charis Due in Confex
 - Jun 22, 2023 – Call for abstracts opens
 - Oct 25, 2023 – Call for abstracts closes
 - Dec, 2023 – Papers accepted or rejected
 - Jan, 2024 – Program goes live
 - Mar, 2024 – Paper submission closes
 - Mar 24-28, 2024 – Spring Meeting – New Orleans, LA
8. Adjourn [10:00 AM]

Chair/Co-Chair for the 2024 Session

Discussed co-chair rotating into the chair position and proposal to have co-chair rotate into the chair position. The sub-committee agreed that this model is efficient and helpful, providing training for the future chair and creating continuity.

James Kendall volunteered to chair the 2024 session. Isa Mbaraka from Dow volunteered to co-chair the 2024 session and chair the 2025 session.

Review of the 2023 Session

Attendance data (by paper):

Paper	Attendance	Title
123a	73	The US Approach to Regulating GHG Emissions - A Practical Summary
123b	89	Olefin and Olefin Derivative Carbon Footprint of Product Perspective
123c	67	Ethylene Risk and Technology Review Reconsideration, What NOW?,
123d	70	Recent Ethylene Producer's Consent Decree Fenceline Monitoring and Experience Using Next Gen Enhanced Monitoring
123e	81	Carbon Dioxide Mitigation Using Renewable Power

Poll Answers (low participation):

1. How would you rate the session overall? (1 – 4 star, 3 – 5 star), average 4.8
2. Do you have specific feedback for this session?
 - Mostly very good papers this year! Well done.
 - Excellent!

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Overall EPC Attendance

Year	Site	Attendance
2016	Houston	130
2017	San Antonio	151
2018	Orlando	130
2019	New Orleans	121
2020	Virtual	93
2021	Virtual	106
2022	San Antonio	93
2023	Houston	136

The subcommittee discussed the 2023 session. Some reactions from the subcommittee on the sessions:

- Some members noted redundancy in the sessions and suggested working to ensure we have diverse offering. For example, a paper presented in the EPC program was also presented in the AIChE program. There may be opportunity to improve coordination with the AIChE general sessions. James Kendall took an action to followup with the main committee.
- The sub-committee discussed how sustainability is a broad topic that may create overlap among sessions.
- The sub-committee discussed methods for ensuring abstracts had broad visibility across sub-committees to improve papers presenting in the most appropriate session. Sub-missions to one subcommittee may be a better fit for an alternate session, and our committee (without main committee representative) isn't aware of a mechanism for shifting papers within the EPC program. James Kendall took an action to followup with the main committee.

Discussion of Potential Topics for 2024 Environmental and Sustainability Session

Ev Ashworth of Ashworth Leininger Group offered to present in 2024:

I had in mind that a focused (20 minute) talk on the key issues that ALG routinely identifies relative to the accuracy of GHG emissions data ... over the past 8 years ALG has directed over 700 audits of corporate GHG reports – either for attestation under Washington, Oregon, and California regulations or under internal company audit/review programs. From this body of work, we see common issues among industrial sources where the accuracy of GHG data are outside regulatory thresholds/limits ... Also, should the SEC finalize its proposed regulations, we could use the architecture of the rule to highlight areas where past audits reveal common compliance issues.

The subcommittee discussed Ev Ashworth's offer to present a paper on the topic suggested. The subcommittee was supportive of requesting an abstract, and suggested that if the paper include SEC context, that this be broadened to include EU perspectives as well.

Mark Ulrich noted that Rice Global E&C presented a paper discussed IRA from a global perspective: <https://forum.rice.edu/past-events/past-roundtables/>. Mark offered to contact the authors to solicit an abstract.

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Post Meeting Note: Subsequent to the meeting Rice Global E&C distributed a Vimeo link: [Rice Global E&C Forum June 8, 2023 Roundtable \(vimeo.com\)](https://vimeo.com/788888888)

Andrés Muñoz Gandarillas suggested Neste could potentially present a paper, combined with Linde. The topic is ongoing and could likely be presented in 2024.

James Kendall offered to investigate if a paper for the Baytown Blue Hydrogen project could be presented.

Ralph Crivello offered to survey within Llyondell on if there is a paper to present within the company.

Mark Ulrich suggested contacting the presenters from last year. If there are developments or topics beyond the 2023 paper that they would like to present, we would welcome an abstract. The subcommittee discussed how focusing in on a particular area of fenceline monitoring would be especially helpful. For example, fenceline monitoring in the context of multiple companies operating within the same large fenceline. Troy Boley suggested that fenceline monitoring is a very broad topic, and narrowing the discussion to a specific area would be useful.

Combined Operations Subcommittee Session

Dan Euhus from the Operations Subcommittee has suggested a combined session with the Environmental and Sustainability Subcommittee in 2024 on "Flare Operation and Reliability under EMACT", with the session being part tutorial in nature. In Spring 2024 the EMACT requirements will have been in effect for about 9 months at that point and it may be an ideal time as an industry to discuss experiences and challenges. The suggested session outline:

1. Vendor Perspective – John Zink
2. Vendor Perspective – Zeeco
3. Vendor Perspective - Callidus
4. Tutorial (Dan Euhus volunteered and suggested Vance Varner if he is interested)
5. Compliance Challenges (All4)
6. Combined Q&A with all vendors

Constraints suggested:

- No more than 25% of the presentation can be dedicated to technology options that the provider has to be able to address the new rules and improve operations.
- Focus on existing equipment.
- Give each vendor 25 minutes with no questions. All in a Q&A round table about what they are seeing and to answer questions from the audience.

The sub-committee discussed the proposed session and agreed the suggested constraints on the presentations were logical and a focus on meeting regulations with existing equipment (vs. new technologies) is important. The sub-committee agreed to respond affirmatively to Dan's suggestion for a combined session and request clarity on what is being requested from the Environmental and Sustainability Subcommittee since most of the session is already laid out. For example, is there a request for a co-chair?

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Date for Potential Face to Face

Face to face options were discussed and Mark Ulrich offered the Linde office in the Woodlands as a backup meeting location. James Kendall offered to host a face-to face in Spring on the Oct 12 or Dec 7 date and will send a followup note to sub-committee members on the best date to maximize attendance.

Review of Action Items

Mark Ulrich: Mark Ulrich noted that the recent June 8 Rice Global E&C Roundtable (<https://forum.rice.edu/past-events/past-roundtables/>) included a combined presentation entitled "Inflation Reduction Act: Navigating the Murky Waters of Compliance and Incentives" which he feels would be a worthy topic for a potential abstract and paper to our subcommittee. Accordingly, Mark offered to contact the presenters: Shawn Daray, Associate, Jones Walker LLP and Adam Green, Carbon Policy Advisor, Worley to solicit an abstract submission.. **DONE**

James Kendall: Verify scope statement for the Environmental and Sustainability Sub-committee is on the EPC site and include in minutes. **DONE**

Post Meeting Note: Mark Ulrich requested that the aligned description of scope for the Environmental and Sustainability Subcommittee be in the meeting minutes. The description is available on the EPC website at <https://www.aiche.org/community/sites/ethylene-producers-committee/environmental-subcommittee> and is included here for reference:

The AIChE Ethylene Producers' Environmental and Sustainability Subcommittee focuses on issues dealing with environmental regulations, compliance, and reporting impacts for the ethylene production industry. Additionally, with sustainability playing an increasingly important role in broader society, the petrochemical industry, and amongst ethylene producers, the subcommittee acts as a forum for discussion and sharing of non-confidential information in sustainability focus areas. These areas include, but are not limited to, the development and deployment of corporate strategies aimed at target-setting and achievement, applicable technologies, best practices, calculations, and standards.

James Kendall: Send a note the Micheal Smith, our current representative on the Main Committee, on the two topics discussed in our 2023 session review: (1) redundancy of papers in EPC and AIChE programming and (2) mechanism for shifting abstracts from one sub-committee to another. **DONE**

James Kendall: Investigate if ExxonMobil could present a paper on developing projects.

Andrés Muñoz Gandarillas: Investigate if Neste could present a paper on developing project.

Ralph Crivello: Survey within Llyondell if there are papers appropriate for presentation in the 2024 session.

James Kendall: Respond to the Operations Subcommittee that we are supportive of the combined session and request clarity on the expectations of the Environmental and Sustainability Subcommittee for the proposed session. **DONE**

James Kendall: Send a note to Subcommittee members requesting clarity on if Oct or Dec is better for a face-to-face meeting in Spring. **DONE**

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James Kendall: Send note to last year's authors requesting abstracts if there have been developments in the same area sufficient to justify another paper. **DONE**

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- Jan, 2024 – Program goes live
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Adjourn

The meeting was adjourned at 9:55 am.