

**FINAL Minutes of October 10, 2019 Ethylene Producers' Environmental Sub-Committee Meeting**  
(October 10, 2019, Rev. 0)

Following are the minutes of the October 10, 2019 Ethylene Producers' Environmental Sub-Committee Meeting, held via teleconference with Walter Postula, Shell Global Solutions (US) Inc., as host.

**Present:** Rick Belez, LyondellBasell  
David Elam, TRC Solutions  
Ahmad Hamad, Siemens  
Brandon Lithgoe, NOVA Chemicals  
Dan Lutz, Ineos  
Andrés Muñoz Gandarillas, Neste  
Jennifer Port, ExxonMobil Chemicals  
Walter Postula, Shell Global Solutions (US) Inc.  
Mark Schmidt, Dow  
Gary Wojnowski, BASF

**Absent:** Benjamin Burns, SASOL North America  
Ted Heron, The Catalyst Group  
Jacob Hilbrich, ChevronPhillips  
Brad Hopper, BASF  
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)  
Debalina Sengupta, Texas A&M (AIChE Environmental Division)  
Dick Siegel, R&B Consulting Services (AIChE Environmental Division)  
Edward Soliz Jr., SASOL North America  
Mark Ulrich, Linde Engineering North America  
Russell Wozniak, Dow

The teleconference began at 9:00am with Walter Postula 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.

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

- 1) Reading of Anti-Trust Statement [9:02 AM]
- 2) Update on AIChE Environmental Division programming on "Waste Plastics to Chemicals" [9:05 AM]
- 3) Status of Potential Papers for Environmental Session [9:10 AM]
  - . Update to RTR/EMACT – Steve Smith (LyondellBasell) – Double time slot
  - a. Electro-oxidation, ZimCad, and/or activated carbon in waste water treatment (topic from Ahmad Hamad, Siemens)

- b. Renewable naphtha/diesel as feedstock for producing bio-ethylene/-propylene (topic from Andrés Muñoz, Neste)
  - c. Zero flaring / Flare Management Plans
  - d. Update on SCR (NOx removal) operation
  - e. CEMS on furnaces (interest since EPA not pushing?)
  - f. CO<sub>2</sub> reduction (much more interest in Europe, maybe we wait a year?)
- 4) Status of Panel Session – “Ethylene Flare System Challenges and Technical Options relating to recent/on-going EPA Consent Decrees” [9:40 AM]
  - 5) Review of Action Items [9:50 AM]
  - 6) Important Date Reminders
    - June 21, 2019 – Call for abstracts opens
    - November 22, 2019 – Call for abstracts closes
    - December 13, 2019 – Papers accepted or rejected
    - January 17, 2020 – Program goes live
    - March 6, 2020 – Paper submission closes
    - March 30 – April 2, 2020 – Spring Meeting – Houston, TX
  - 7) Adjourn [10:00 AM]

**Update on AIChE Environmental Division programming on “Waste Plastics to Chemicals”:** Jeff Seay not on call, but previous feedback indicated that there will be no dedicated session(s) planned for Spring 2020. Instead, a “virtual topical” is planned, where existing sessions are encouraged to focus on plastic.

**Discussion of Potential Topics for Environmental Session:** The following updates were provided based on the topics generated during the first subcommittee meeting.

- 1) Update to RTR/EMACT – Rick has passed along abstract from Steve to Brandon and Jake. Steve will upload to Confex.
- 2) Electro-oxidation, ZimCad, and/or activated carbon in waste water treatment (topic from Ahmad Hamad, Siemens) – abstract is uploaded to Confex.
- 3) Renewable naphtha/diesel as feedstock for producing bio-ethylene/-propylene (topic from Andrés Muñoz, Neste) – abstract will be uploaded to Confex.
- 4) Zero flaring / Flare Management Plans – Linda Bartlett will submit abstract (mostly on Flare Management Plans).
- 5) Update on SCR (NOx removal) operation – Jake indicated (e-mail) that he asked within CPChem technical community regarding interest. Need an update.
- 6) CEMS on furnaces – Dave Elam to submit abstract on topic of Electronic Reporting.
- 7) CO<sub>2</sub> reduction – discussion on LyondellBasell presentation on “circular steam”. If additional paper is needed, Rick will pursue further.

**Status of Panel Session:** Rick and Brandon summarized intent of panel session “Ethylene Flare System Challenges and Technical Options relating to recent/on-going EPA Consent Decrees” and sent to subcommittee after previous telecon. As of this telecon, only LyondellBasell and Dave Elam were a “yes” for participation. ExxonMobil and Shell were a “maybe”, while Ineos, BASF, and Nova were a “no”. No feedback yet from CPChem, Dow, or Sasol. **NOTE: After discussion at the Main Committee meeting, this topic was dropped for 2020. Will pursue again for 2021 (may be more interest in participation then).**

**Review of Action Items:** Jake Hilbrich to follow-up on CPChem’s willingness to share update on SCR operation.

**Important Date Reminders:** The dates provided in the agenda were reviewed.

**Adjourn:** The meeting/teleconference was closed at 9:30 am.