

Date: May 18, 2020
To: Docket, EPA-HQ-OAR-2018-0746
From: Tegan Lavoie
Subject: Meeting Record for March 12, 2020, Meeting Between the U.S. EPA and
Representatives of Huntsman Performance

On March 12, 2020, representatives of the U.S. Environmental Protection Agency (EPA) participated in a phone call with representatives of Huntsman Performance. The names and affiliations of the participants are included in Attachment A.

The purpose of the meeting was to discuss Huntsman's comments submitted to the docket for the Miscellaneous Organic Chemical Manufacturing National Emission Standards for Hazardous Air Pollutants (NESHAP), known as the MON. The comments referred to during this meeting can be found in the MON docket at <https://www.regulations.gov/document?D=EPA-HQ-OAR-2018-0746-0073>.

On April 27, 2020, Huntsman Performance provided responses to EPA's questions from the March 12, 2020, phone call. The questions and responses are included in Attachment B.

A record of all email exchanges between Huntsman Performance and the U.S. EPA in regard to this communication is included in Attachment C.

Attachment A

Participants in March 12, 2020 EPA/Huntsman Phone Call

Huntsman Performance Representatives

Rick Hare

Walter Greer

Curtis Keller

Jason Graves (consultant)

Ed Gunderson (consultant)

U.S. EPA Representatives

Brenda Shine

Brian Shrager

Tegan Lavoie

Matt Woody

Andrew Bouchard

Attachment B

**Huntsman Performance's April 27, 2020 Responses to EPA's Questions Asked During the
March 12, 2020 Phone Call**

**Huntsman – Conroe, Texas Facility
Additional Facility-Specific Responses and Information
MON Residual Risk and Technology Review**

1) Predominant use analysis for storage vessel and transfer operations.

EPA inquired about applicability determinations made for ethylene oxide (EO) storage vessel and transfer operations, which serve multiple process units at the Conroe plant. These facilities were assigned to process units based on predominant use, to address regulatory overlap between HON, MON, and the Polyether Polyol MACT (PPP). In the case of EO, the operative citation is 63.1420(f)(3) because Subpart PPP is the predominant use.

To determine the predominant use, the five-year production history for products made at the site were summarized by process unit. We then identified the consumption of EO for each. These were totaled by process unit so that EO consumption by unit was available. The current analysis (based on 2015-2019 production data) is summarized in the table below:

Process Unit	2015-2019 EO Percentage¹	Applicable MACT Standard
AAU	25.9%	MON
CARB 1/2	16.9%	HON
D&G Kettles	55.6%	Polyether Polyol MACT (PPP)
SAU	1.5%	MON
Total	100.0%	See above

Because the predominant use of EO is to feed the D&G Kettles area, the storage vessels and transfer operations are assigned to those production units, which produce polyether polyols and are regulated under the Polyether Polyol MACT (PPP).

2) Description of the wastewater ponds and clarification of previously reported emissions data.

The Conroe plant operates a treatment system for process wastewater. The system consists of 9 sequential ponds (numbered 3 through 11) with biotreatment, aeration, and settling divided between the ponds. There is also a firewater pond with an outfall into Pond 7. The firewater pond receives water from excess groundwater production, steam condensate, and reverse osmosis reject water. Process wastewater enters Pond 3 to begin treatment.

During the air permitting process for the plant, water samples were taken at various sumps and collection points in the facility and analyzed for EO. Engineering estimates were made of the maximum potential emissions of EO from the ponds based on those analyses. Those calculations were overly conservative as they were assessing potential MACT applicability, and relied upon EPA wastewater models that estimated a high fraction was volatilized and emitted. The models did not account for the reactivity of the residual EO in the water to form glycols. The Conroe plant has reported an annual average based on the same conservative EO emissions from the ponds in the

¹ Percentages (rather than mass) were used to limit the inclusion of Confidential Business Information (CBI).

emissions inventory. Thus, the values reported in previous emissions inventories significantly overstate actual EO emissions from the ponds.

We are working to refine our estimates with more realistic actual emissions data that better reflects the underlying water chemistry and operating dynamics for future emissions inventories. No recent sampling has identified the presence of EO in the water entering the ponds. But even if it were present, the pH and reactivity of the ponds would react any residual EO into glycols, which: (1) do not pose the same potential risks of EO, and (2) are essentially non-volatile, and would not be emitted from the pond in any event. From this, we conclude that prior reporting was not representative of actual EO emissions from the ponds and expect that any actual EO pond emissions will be de minimis.

Finally, please note that the any EO emissions actually associated with the ponds at Conroe fall beyond the scope of the MON rule and EPA's assessment of related residual risks.

3) Clarification of EO emissions previously reported for P-G-125.

Pump P-G-125 circulates pump seal fluid (water seal) for a vacuum pump in the AAU unit. The emissions from this source are associated with a drain that takes the water in the seal bottom to a non-hazardous process wastewater storage tank. That drain was previously identified as a continuous stream. The drain is sampled as part of the LDAR program. In an initial sampling campaign, an analysis of the seal fluid discharge was completed four times. All but one sample was non-detect for EO emissions. The only sample with detectable EO emissions was used to establish the maximum EO quantity that could be discharged into the drain system. Similar to the pond emissions, overly conservative estimates which presumed nearly complete volatilization of this amount and the existence of a continuous stream were used for the purposes of establishing regulatory applicability. These same worst-case emissions estimates were later re-purposed without further review for reporting in the emissions inventory.

As with the ponds, the values reported in previous emissions inventories for the P-G-125 drain significantly overstate actual EO emissions. We have confirmed that this drain is not in continuous use. Rather, it is only used during maintenance on the pump, and has only been used five times since November 2011. Given the highly intermittent use, any EO emissions from this source would either be zero (in most years where not used) or de minimis (where used for a short period during a single maintenance event with no continuous flow and only if EO was present in the first place). Separately, similar to the ponds, any EO present during these infrequent maintenance events would react with the water present to transform into glycols. Thus, the level we have been reporting is not representative of and significantly overstates actual EO emissions. We are working to refine prior emissions estimates with more realistic actual emissions data for future emissions inventories.

4) The JAU units do not use EO, and have no associated EO emissions.

The JAU units are subject to MON, but do not use or contain EO. There is a disconnect between the way data is reported for Texas Emissions Inventories and the analysis required for MACT/MON applicability. Regulatory applicability is based on the functional use of equipment at the plant and how it works as part of designated process units. Emissions Inventories are based on geographic locations where releases occur. In some cases (including this one) that is distinct from the functional nexus with the process unit that occupies the space. This is why EO emissions are

reported with the equipment leak fugitives in the JAU unit for purposes of the Texas Emissions Inventory.

The JAU unit does not use EO as a raw material, and does not produce EO as a product, co-product, or by-product. There are no process streams that function within the JAU unit process that contain EO in quantifiable amounts. However, the plant maintains an EO circulation loop (for safety reasons) that is used to convey and distribute EO throughout the plant to processes that actually consume EO (see response 1 above). This recirculation loop passes through the physical geographic boundaries of the JAU units. Although there are no connections within the JAU boundaries to the JAU process, there are equipment leak fugitive components (valves, flanges, etc.) that are part of the recirculation loop that are physically within the boundaries of the JAU. As the material in the recirculation loop passes through the JAU boundaries, there is a potential for fugitive equipment leaks. Because of the geographic location, they are reported in the emissions inventory based on their physical location within the JAU geographic boundaries even though they are not part of the JAU process unit as defined in MACT standards.

Attachment C

**Record of email exchanges between Huntsman Performance and the U.S. EPA in regard to
this communication**

From: [Lavoie, Tegan](#)
To: [Richard E Hare](#)
Cc: [Shine, Brenda](#)
Subject: Huntsman Conroe MON RTR comment discussion
Date: Thursday, March 5, 2020 2:00:00 PM

Hi Rick,

We have been reviewing Huntsman's comments submitted on the MON RTR proposal and would like an opportunity to discuss these comments further. Specifically, we would like to better understand the processes subject to MON, HON, and PPP that contain ethylene oxide, what equipment belongs to the MCPUs, what controls are currently installed, what are the products from these processes, and what rules the equipment are subject to. Would you and your technical staff be available for a 30 minute phone call next week to discuss? If so, please let me know if any 30 minute blocks in the below time slots work for you and your staff.

Tuesday 3/10:

9:00 AM – 10:30 AM (ET)

2:00 PM – 4:30 PM (ET)

Wednesday 3/11:

10:00 AM – 2:00 PM (ET)

Thursday 3/12:

9:00 AM – 10:30 AM (ET)

Thank you in advanced for your time and please let me know if you have any questions.

Best regards,

Tegan

Tegan N. Lavoie, PhD

OAR/OAQPS/SPPD/Refining and Chemicals Group

U.S. Environmental Protection Agency

Research Triangle Park, NC 27711

Phone: (919) 541-5110 | Email: lavoie.tegan@epa.gov

From: [Lavoie, Tegan](#)
To: ["Richard Hare"](#)
Cc: [Shine, Brenda](#)
Subject: RE: Huntsman Conroe MON RTR comment discussion
Date: Tuesday, March 10, 2020 12:37:00 PM

Hi Rick,

Thanks for your email. I've gone ahead and arranged a phone line for this discussion on 3/12 at 9AM EDT/8AM CDT. The phone line is [REDACTED]. There is no passcode.

Thanks again and talk to you on Thursday.

Best regards,
Tegan

From: Richard Hare <richard_e_hare@huntsman.com>
Sent: Tuesday, March 10, 2020 12:29 PM
To: Lavoie, Tegan <lavoie.tegan@epa.gov>
Cc: Shine, Brenda <Shine.Brenda@epa.gov>
Subject: RE: Huntsman Conroe MON RTR comment discussion

We managed to reach a consensus on the meeting times you offered, and we'd like to meet at 9:00 AM EDT (8:00 AM CDT) Thursday (3/12/20).

I assume that since you are holding these meetings that you have a conference call setup in place. Let me know what we need to do to join in and we'll make it happen.

Thanks,

Rick Hare
Team Lead, Environmental
Huntsman Petrochemical LLC
5451 Jefferson Chemical Road, Conroe, Texas 77301
936-760-6287
832-724-0911 (cell)
936-760-6280 (fax)

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Ad maiora natus sum

From: Lavoie, Tegan <lavoie.tegan@epa.gov>
Sent: Tuesday, March 10, 2020 10:07 AM
To: Richard Hare <richard_e_hare@huntsman.com>
Cc: Shine, Brenda <Shine.Brenda@epa.gov>
Subject: [EXTERNAL] RE: Huntsman Conroe MON RTR comment discussion

Hi Rick,

Thank you, I appreciate it. Please feel free to also suggest times for next week if needed.

Best regards,
Tegan

From: Richard Hare <richard_e_hare@huntsman.com>
Sent: Monday, March 9, 2020 3:59 PM
To: Lavoie, Tegan <lavoie.tegan@epa.gov>
Cc: Shine, Brenda <Shine.Brenda@epa.gov>
Subject: RE: Huntsman Conroe MON RTR comment discussion

Sorry for the slow response – I was out of the office for a couple of days. I'm checking with others involved in this project so that I can get the appropriate folks together for our conference call. Will contact you as soon as I have them set up.

Rick Hare
Team Lead, Environmental
Huntsman Petrochemical LLC
5451 Jefferson Chemical Road, Conroe, Texas 77301
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832-724-0911 (cell)
936-760-6280 (fax)

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Ad maiora natus sum

From: Lavoie, Tegan <lavoie.tegan@epa.gov>
Sent: Thursday, March 05, 2020 1:00 PM
To: Richard Hare <richard_e_hare@huntsman.com>
Cc: Shine, Brenda <Shine.Brenda@epa.gov>
Subject: [EXTERNAL] Huntsman Conroe MON RTR comment discussion

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Hi Rick,

We have been reviewing Huntsman's comments submitted on the MON RTR proposal and would like an opportunity to discuss these comments further. Specifically, we would like to better understand the processes subject to MON, HON, and PPP that contain ethylene oxide, what equipment belongs to the MCPUs, what controls are currently installed, what are the products from these processes, and what rules the equipment are subject to. Would you and your technical staff be available for a 30 minute phone call next week to discuss? If so, please let me know if any 30 minute blocks in the below time slots work for you and your staff.

Tuesday 3/10:

9:00 AM – 10:30 AM (ET)

2:00 PM – 4:30 PM (ET)

Wednesday 3/11:

10:00 AM – 2:00 PM (ET)

Thursday 3/12:

9:00 AM – 10:30 AM (ET)

Thank you in advanced for your time and please let me know if you have any questions.

Best regards,

Tegan

Tegan N. Lavoie, PhD

OAR/OAQPS/SPPD/Refining and Chemicals Group

U.S. Environmental Protection Agency

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From: [Richard Hare](#)
To: [Lavoie, Tegan](#)
Subject: RE: Huntsman Conroe MON RTR comment discussion
Date: Thursday, March 12, 2020 10:56:13 AM

Thank you for getting everyone together to discuss the MON issue. We felt like it was a productive discussion and hopefully we were able to clear up some areas of confusion.

The attendees on our end were:

Rick Hare – Team Lead, Environmental (Conroe)
Walter Greer – Manager, EHS (Conroe)
Curtis Keller – Manager, Shipping (Conroe) (former manager of Engineering)
Jason Graves – consultant (Waid & Assoc.)
Ed Gunderson – consultant (former Huntsman corporate employee)

If you have further questions, please don't hesitate to let me know.

Rick Hare
Team Lead, Environmental
Huntsman Petrochemical LLC
5451 Jefferson Chemical Road, Conroe, Texas 77301
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Ad maiora natus sum

From: Lavoie, Tegan <lavoie.tegan@epa.gov>
Sent: Thursday, March 12, 2020 9:13 AM
To: Richard Hare <richard_e_hare@huntsman.com>
Subject: [EXTERNAL] RE: Huntsman Conroe MON RTR comment discussion

Hi Rick,

Thank you for your time on the phone today. Would you mind sending me a list of those who attended on today's phone call? I'm not sure I got everyone's name.

Thank you,
Tegan

From: Lavoie, Tegan
Sent: Wednesday, March 11, 2020 10:16 AM
To: Richard Hare <richard_e_hare@huntsman.com>
Subject: RE: Huntsman Conroe MON RTR comment discussion

Hi Rick,

The list of EPA staff that have been invited to attend is as follows:

Tegan Lavoie
Brenda Shine
Brian Shrager
Andrew Bouchard
Matt Woody

Thank you,
Tegan

Tegan N. Lavoie, PhD
OAR/OAQPS/SPPD/Refining and Chemicals Group
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
Phone: (919) 541-5110 | Email: lavoie.tegan@epa.gov

From: Richard Hare <richard_e_hare@huntsman.com>
Sent: Wednesday, March 11, 2020 10:07 AM
To: Lavoie, Tegan <lavoie.tegan@epa.gov>
Subject: RE: Huntsman Conroe MON RTR comment discussion

May I ask who is expected to participate on your end of tomorrow's conference call?

Rick Hare
Team Lead, Environmental
Huntsman Petrochemical LLC
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Ad maiora natus sum

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From: [Richard Hare](#)
To: [Lavoie, Tegan](#)
Cc: [Shine, Brenda](#)
Subject: RE: Huntsman Conroe MON RTR comment discussion
Date: Tuesday, April 28, 2020 2:56:52 PM

We do not have any CBI issues with the response.

Rick Hare
X6287

From: Lavoie, Tegan <lavoie.tegan@epa.gov>
Sent: Tuesday, April 28, 2020 8:39 AM
To: Richard Hare <richard_e_hare@huntsman.com>
Cc: Shine, Brenda <Shine.Brenda@epa.gov>
Subject: [EXTERNAL] RE: Huntsman Conroe MON RTR comment discussion

Hi Rick,

Thanks for your email and for providing the attached responses.

As mentioned on the phone, we intend to include the attached file in the docket for this rulemaking. Please let me know if you have any CBI concerns with this file or if it is fine to post as is.

Thank you,
Tegan

Tegan N. Lavoie, PhD

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U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
Phone: (919) 541-5110 | Email: lavoie.tegan@epa.gov

From: Richard Hare <richard_e_hare@huntsman.com>
Sent: Monday, April 27, 2020 2:37 PM
To: Lavoie, Tegan <lavoie.tegan@epa.gov>
Cc: Shine, Brenda <Shine.Brenda@epa.gov>
Subject: RE: Huntsman Conroe MON RTR comment discussion

Huntsman Petrochemicals LLC, Conroe Plant, has compiled the attached responses to the questions raised by EPA during our last conference call. We apologize for the delay, but like everyone else we

are dealing with new work rules in light of the COVID-19 issue.

If you have any further questions, or if you need additional information on the attached response, please feel free to contact me by email or cell.

Rick Hare
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Ad maiora natus sum

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