



STATE OF DELAWARE

**DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL  
CONTROL**

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OFFICE OF THE  
SECRETARY

**SETTLEMENT AGREEMENT MODIFICATION**

This Settlement Agreement Modification (the “Modification”) is made and entered into as of January 13, 2023 (the “Effective Date”), by and between Croda, Incorporated (“Croda”) and the State of Delaware Department of Natural Resources and Environmental Control (“DNREC” or the “Department”) (collectively the “Parties”) to modify some of the requirements of the Settlement Agreement entered into between the Parties on February 26, 2021 (the “2021 Settlement Agreement”).

**BACKGROUND**

The Parties entered into the 2021 Settlement Agreement to resolve certain matters arising from performance testing done on equipment at Croda’s Ethylene Oxide Plant (the “EtO Plant”) located in New Castle, Delaware on September 17, 2020, and January 13-14, 2021, and the revised semi-annual report submitted on September 28, 2020. The 2021 Settlement Agreement contained numerous requirements to reduce emissions from the T-330 Vent Scrubber (“the Scrubber”) used to control emissions from two storage tanks. Croda has satisfied many of the requirements applicable to the Scrubber, including those provided in paragraphs 15-25, and Croda states that no EtO emissions have been vented to the atmosphere from the Scrubber since October 2021.

In accordance with Paragraph 26 of the 2021 Settlement Agreement, Croda evaluated the impacts of the rerouted piping on operation of the EtO Plant for six months. However, this demonstration was not made at the maximum daily permitted production rate. Additionally, the length of time associated with increasing the daily production rate of the EtO Plant to the maximum permitted levels also requires permit clarifications. Therefore, this agreement will modify the 2021 Settlement Agreement as follows:

- Paragraphs 1 through 4 below will add additional requirements to the 2021 Settlement Agreement.
- Paragraph 5 below will replace Paragraph 26 of the 2021 Settlement Agreement.
- Paragraph 6 below will replace the reporting requirement of Paragraph 12 of the 2021 Settlement Agreement.

- Paragraph 7 below adds an additional sentence to Paragraph 38 of the 2021 Settlement Agreement.

All other provisions of the 2021 Settlement Agreement remain in place. Therefore, the Parties agree as follows:

### **MODIFICATION OF THE SETTLEMENT AGREEMENT BETWEEN THE PARTIES**

1. Croda shall not vent to atmosphere from the Scrubber more than 876 hours per rolling 12-month period unless and until a continuous emission monitoring system (CEMS) is installed, permitted, and continuously operated to measure EtO emissions.
2. No later than 90 days after the effective date of this Modification, Croda shall submit the following:
  - a. A permit application for a federally enforceable 7 DE Admin Code 1102 construction permit for the installation of a CEMS to measure EtO emissions from the Vent Scrubber and, once installed, require continuous operation of the CEMS at all times that the Scrubber is venting to atmosphere, except during monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments; and
  - b. A permit amendment application to modify Permit: APC-2016/0068-C(A4). This permit amendment application shall include:
    - The addition of an 876 hour/year limit on the operation of the EtO Vent Scrubber, with an emission limit of 0.066 pound per hour until such time as a CEMs is installed and operating.
    - The addition of the provisions of Paragraph 4 (below) into the Testing section of the permit.
3. DNREC shall review the construction permit application for installation of a CEMS for completeness and provide Croda with written notice of approval or additional required information. If DNREC requests additional information, Croda shall respond with an updated permit application addressing all concerns within 21 calendar days. Once the permit application has been determined complete, DNREC shall follow proper public notification and hearing procedures to process the permit application. If at any time throughout the process the Department determines that additional information is required, Croda shall respond within 21 calendar days. Upon conclusion of required public participation, if DNREC approves the construction permit application for installation of a CEMs, DNREC shall issue the federally enforceable 7 DE Admin. Code 1102 construction permit with a term of three years that the parties agree cannot and will not be extended for any reason.

4. Unless and until Croda demonstrates to DNREC's satisfaction that a higher production level is allowed by the current permit APC-2016/0068-C(A4) that was issued August 19, 2021, Croda may increase the production rate of the EtO Plant only up to 82.2 metric tons per day (mtpd) for the purpose of demonstrating compliance with all applicable requirements while operating at that production rate without venting the Scrubber. Within 15 days of achieving the increased daily production rate, Croda shall schedule a performance test. The performance test shall be completed within 90 days of achieving the increased daily production rate.
  - a. If the ability to operate successfully without venting the Scrubber is demonstrated by meeting all current short term permit limits through performance testing, Croda may operate the EtO Plant at the new daily production rate, subject to the 876 hr/yr limit on venting from the Scrubber.
  - b. If the ability to operate successfully is not demonstrated because venting from the Scrubber is needed to operate at the higher production rate, Croda must reduce daily production rate to the level demonstrated during the most recent passing performance test in which venting was not required, and install CEMS prior to increasing production rate. Additional attempts for successful operation at the tested production rate will not be allowed prior to CEMS installation. VOC emissions at the increased production rate with CEMS will remain limited to 0.024 short tons/month at a 99% removal efficiency.
5.
  - a. Upon installation of the CEMS in accordance with the federally enforceable 7 DE Admin. Code 1102 construction permit, DNREC approval to operate the CEMS will occur upon issuance of a 7 DE Admin. Code 1102 operating permit. DNREC shall also administratively amend the Title V permit to incorporate the CEMS provisions of the federally enforceable 7 DE Admin. Code 1102 construction permit, including the requirement to continuously operate the CEMS at all times that the Scrubber is venting to atmosphere except during monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments.
  - b. If Croda fails to install and certify the CEMS pursuant to subparagraph a. above prior to expiration of the federally enforceable 7 DE Admin. Code 1102 construction permit, DNREC shall administratively amend the Title V permit to incorporate the Scrubber operating limit of 876 hours per year on a rolling 12-month basis and revise the Scrubber emission limitation to 0.066 pounds per hour and 0.029 short tons per year.
6. Croda shall provide a progress report every 90 days, in a manner and on a schedule agreed upon in writing by Croda and DNREC, until a CEMS is installed and permitted, or deemed unnecessary. The progress report shall include the following:
  - a. Current maximum production rate based on the last successful performance test;

- b. Maximum production rate actually achieved during 90 day period;
  - c. List of any Scrubber venting events, including start and end times, and production rate during such venting events;
  - d. Estimated hourly emissions from the unit during Scrubber venting events; and
  - e. Updates and any additional information regarding CEMS.
7. Paragraph 38 of the 2021 Settlement Agreement is modified to add the following sentence to the end of the paragraph: If Croda fails to submit a stipulated penalty with the next required report, DNREC may issue a letter demanding payment of the stipulated penalty, and Croda shall pay the penalty within 30 days of receipt of the demand letter.

### **GENERAL PROVISIONS**

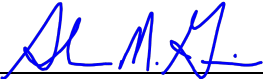
8. This Modification and the 2021 Settlement Agreement shall be governed by, and interpreted under, the laws of the State of Delaware.
9. This Modification and the 2021 Settlement Agreement are not permits. Compliance with these terms does not guarantee compliance with any applicable federal, state, or local law or regulation. Nothing in this Modification or the 2021 Settlement Agreement, other than as expressly provided, shall be construed to be a ruling on, or determination of, any issue related to any federal, state, or local permit.
10. Other Laws. Nothing in this Modification or the 2021 Settlement Agreement shall relieve Respondent of its obligations to comply with all applicable federal, state, and local laws and regulations. Nothing contained in this Modification or the 2021 Settlement Agreement shall be construed to prevent, alter, or limit DNREC's ability to seek or obtain other remedies or sanctions available under federal, state, or local statutes or regulations, in response to violations by Respondent of applicable statutes, regulations, and permits.
11. The Effect of Settlement Provision in the 2021 Settlement Agreement required, among other things, that it was contingent on the completion of the Source Specific Requirements in Section IV. The specific provisions herein are included within the requirements of the 2021 Settlement Agreement that must be completed in order to resolve the civil and administrative liability of Croda to DNREC for the violations that DNREC concluded occurred in the 2021 Settlement Agreement.
12. Croda shall pay stipulated penalties set out in paragraph 36 of the 2021 Settlement Agreement for any failure to meet deadlines set forth herein.

13. Third Parties


- a. This Modification and the 2021 Settlement Agreement do not limit or affect the right of Croda or DNREC against any person or entity not party to this Modification and the 2021 Settlement Agreement.
- b. This Modification and the 2021 Settlement Agreement shall not be considered to create rights in, or grant any cause of action to, any third party, nor does it limit the rights of any person or entity not party to this Modification and the 2021 Settlement Agreement against Croda, except as otherwise provided by law.

14. Modification. This Modification and the 2021 Settlement Agreement may be modified only by the written consent of DNREC and Croda.

FOR THE STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES  
& ENVIRONMENTAL CONTROL

By:  Date: 1/13/23  
Shawn M. Garvin, Secretary  
Department of Natural Resources  
and Environmental Control

FOR CRODA, INC.

By:  Date: 1/13/2023  
Christopher Barnett  
Site Director

By: *Michelle M. Skjoldal* Date: 1/13/2023  
Attorney for Croda, Inc.