



STATE OF DELAWARE  
**DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL**

DIVISION OF AIR QUALITY  
STATE STREET COMMONS  
100 W. WATER STREET, SUITE 6A  
DOVER, DELAWARE 19904

ENGINEERING &  
COMPLIANCE

PHONE  
(302) 739-9402

January 3, 2024

**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

Croda Inc.  
110 MMBtu Boiler (Boiler 6)  
Atlas Point  
315 Cherry Lane  
New Castle, DE 19720

ATTENTION: Josh Dube  
Site Director

Dear Mr. Dube:

Pursuant to 7 DE Admin. Code 1102 Section 2 and Section 11, approval by the Department of Natural Resources and Environmental Control (the Department) is hereby granted for the construction of one (1) 110 MMBtu boiler (Boiler 6) utilizing ultra-low NOx burner, flue gas recirculation, and add-on catalytic oxidation unit located at the Croda Inc. Atlas Point facility in New Castle, Delaware, in accordance with the application submitted on Form Nos. AQM-1, AQM-2, AQM-3.2, AQM-5 dated January 13, 2023 signed by Chris Barnett, Site Director, and updated AQM-5's emailed on May 31, 2023 and June 9, 2023 by Allison Bard, Lead SHE Advisor.

This permit is issued subject to the following conditions all of which are federally enforceable except Condition 6.1 and 2.3:

**1. General Provisions**

- 1.1 This permit expires on **<insert date>**. If the equipment covered by this permit will not be constructed by **<insert date>**, an application for renewal of this construction permit must be submitted by **<insert date minus 180 days>**. [Reference 7 DE Admin. Code 1102 Section 11.10 dated 06/11/2006]
- 1.2 The project shall be constructed in accordance with the information described above. If changes are necessary, revised plans must be submitted and a supplemental approval issued prior to actual construction. [Reference 7 DE Admin. Code 1102 Section 11 dated 06/11/2006]

**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 2

- 1.3 Upon presentation of identification, the Company shall authorize officials of the Department to:
  - 1.3.1 Enter upon the Company's premises where a source is located or an emissions-related activity is conducted, or where records that must be kept under the terms and conditions of this permit are located. **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 7 DE Admin. Code 1130 Section 6.3.2.1 dated 08/11/2022]*
  - 1.3.2 Have access to and copy, at reasonable times, any record(s) that must be kept under the terms and conditions of this permit. **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 7 DE Admin. Code 1130 Section 6.3.2.2 dated 08/11/2022]*
  - 1.3.3 Inspect, at reasonable times, any record(s) that must be kept under the terms and conditions of this permit. **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 7 DE Admin. Code 1130 Section 6.3.2.3 dated 08/11/2022]*
  - 1.3.4 Sample or monitor, at reasonable times, any substance or parameter for the purposes of assuring compliance with this permit or any applicable requirement. **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 7 DE Admin. Code 1130 Section 6.3.2.4 dated 08/11/2022]*
- 1.4 This permit may not be transferred to another location or to another piece of equipment or process. *[Reference 7 DE Admin. Code 1102 Section 7.1 dated 06/01/1997]*
- 1.5 This permit may not be transferred to another person, owner, or operator unless the transfer has been approved in advance by the Department. Approval (or disapproval) of the permit transfer will be provided by the Department in writing. A request for a permit transfer shall be received by the Department at least thirty (30) days before the date of the requested permit transfer. This request shall include: *[Reference 7 DE Admin. Code 1102 Section 7.1 dated 06/01/1997 and 7 Del. C., Chapter 79]*
  - 1.5.1 Signed letters from each person stating the permit transfer is agreeable to each person; and
  - 1.5.2 An Applicant Background Information Questionnaire pursuant to 7 Del. C., Chapter 79 if the person receiving the permit has not been issued any permits by the Department in the previous five (5) years.
- 1.6 The Company shall, upon completion of the construction, installation, or alteration of each emission unit, request in writing that the Department transfer the terms and conditions of this construction permit into the 7 DE Admin. Code 1130 operating permit. *[Reference 7 DE Admin. Code 1102 Section 11.5 dated 06/11/2006]*
- 1.7 The request shall contain the following information, and shall contain the following language from the responsible official: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete." *[Reference 7 DE Admin. Code 1102 Section 11.5.1 dated 06/11/2006]*

- 1.7.1 A description of the compliance status, a complete schedule, and a certification of compliance for the equipment, facility, or air contaminant control device with respect to all applicable requirements, in accordance with 7 DE Admin. Code 1130 Section 5.4.8 and 5.4.9; and
- 1.7.2 A statement of the methods used to determine compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods.
- 1.8 Upon satisfactory demonstration that the equipment, facility, or air contaminant control device complies with all applicable requirements and all terms and conditions of the construction permit, and not prior to the expiration of the EPA review period provided for in 7 DE Admin. Code 1102, Section 12.5, the Department shall transfer the specified terms and conditions to the 7 DE Admin. Code 1130 permit via the administrative amendment process specified in 7 DE Admin. Code 1130. *[Reference 7 DE Admin. Code 1102 Section 11.5.2 dated 06/11/2006]*
- 1.9 The provisions of 7 DE Admin. Code 1102 Sections 2.1, 11.3, and 11.5 shall not apply to the operation of equipment or processes for the purpose of initially demonstrating satisfactory performance to the Department following construction, installation, modification, or alteration of the equipment or processes. The Company shall notify the Department sufficiently in advance of the demonstration and shall obtain the Department's prior concurrence of the operating factors, time period, and other pertinent details relating to the demonstration. *[Reference 7 DE Admin. Code 1102 Section 11.12 dated 06/11/2006]*
- 1.10 The owner or operator shall not initiate construction, install, or alter any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department pursuant to 7 DE Admin. Code 1102, and, when applicable, 7 DE Admin. Code 1125, and receiving approval of such application from the Department; except as exempted in 7 DE Admin. Code 1102 Section 2.2. *[Reference 7 DE Admin. Code 1102 Section 2.1 dated 06/11/2006]*

## **2. Emission Limitations**

- 2.1 Air contaminant emission levels for the 110 MMBtu Boiler (Boiler 6) shall not exceed those specified in 7 DE Admin. Code 1100 and the following:
  - 2.1.1 Nitrogen Oxides (NO<sub>x</sub>) Emissions
    - 2.1.1.1 NO<sub>x</sub> emissions shall not exceed 11.0 pounds per hour when fired on No. 2 fuel oil; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]*
    - 2.1.1.2 NO<sub>x</sub> emissions shall not exceed 1.21 pounds per hour when fired on natural gas; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]*

2.1.1.3 NO<sub>x</sub> emissions shall not exceed 3.7 pounds per hour when fired on a 90% landfill gas / 10% natural gas blend; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]

2.1.1.4 NO<sub>x</sub> emissions shall not exceed 0.20 lb/MMBtu heat input regardless of fuel fired; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.44b(l)(1) dated 02/16/2012, 7 DE Admin. Code 1120 Section 26 dated 12/07/1988, and 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]

2.1.1.4.1 The NO<sub>x</sub> standard in Condition 2.1.1.4 shall be determined on a thirty-day (30-day) rolling average basis. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.44b(i) dated 02/16/2012 and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]

2.1.1.5 NO<sub>x</sub> emissions shall not exceed 21.7 tons per twelve (12) month rolling period regardless of fuel fired; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]

2.1.2 Sulfur Oxides (SO<sub>x</sub>) Emissions

2.1.2.1 SO<sub>x</sub> emissions shall not exceed 0.174 pounds per hour when fired on No. 2 fuel oil; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]

2.1.2.2 SO<sub>x</sub> emissions shall not exceed 0.065 pounds per hour when fired on natural gas; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]

2.1.2.3 SO<sub>x</sub> emissions shall not exceed 1.1 pounds per hour when fired on a 90% landfill gas / 10% natural gas blend; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]

2.1.2.4 SO<sub>2</sub> emissions shall not exceed 0.32 lb/MMBtu heat input, regardless of fuel fired; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.42b(k)(2) dated 01/20/2011, 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988, and 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]

2.1.2.5 SO<sub>x</sub> emissions shall not exceed 4.8 tons per twelve (12) month rolling period regardless of fuel fired; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]

**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 5

**2.1.3 Carbon Monoxide (CO) Emissions**

2.1.3.1 CO emissions shall not exceed 6.6 pounds per hour when fired on No. 2 fuel oil; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]*

2.1.3.2 CO emissions shall not exceed 0.407 pounds per hour when fired on natural gas; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]*

2.1.3.3 CO emissions shall not exceed 0.4 pounds per hour when fired on a 90% landfill gas / 10% natural gas blend; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]*

2.1.3.4 CO emissions shall not exceed 6.4 tons per twelve (12) month rolling period regardless of fuel fired; **(This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07))** *[Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]*

**2.1.4 Volatile Organic Compound (VOC) Emissions**

2.1.4.1 VOC emissions shall not exceed 0.157 pounds per hour when fired on No. 2 fuel oil; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]*

2.1.4.2 VOC emissions shall not exceed 0.593 pounds per hour when fired on natural gas; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]*

2.1.4.3 VOC emissions shall not exceed 0.3 pounds per hour when fired on a 90% landfill gas / 10% natural gas blend; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]*

2.1.4.4 VOC emissions shall not exceed 2.6 tons per twelve (12) month rolling period regardless of fuel fired; **(This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07))** *[Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]*

**2.1.5 Particulate Matter (PM) Emissions**

2.1.5.1 Total Particulate Matter (TPM or PT) emissions shall not exceed 1.571 pounds per hour when fired on No. 2 fuel oil; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]*

- 2.1.5.2 Total Particulate Matter (TPM or PT) emissions shall not exceed 0.820 pounds per hour when fired on natural gas; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]
- 2.1.5.3 Total Particulate Matter (TPM or PT) emissions shall not exceed 0.69 pounds per hour when fired on a 90% landfill gas / 10% natural gas blend; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]
- 2.1.5.4 The owner or operator shall not cause or allow the emission of total particulate matter (TPM or PT) in excess of 0.030 lb/MMBtu heat input, maximum two (2) hour average, regardless of the fuel fired; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.43b(h)(1) dated 02/16/2012, 40 CFR Part 63 Subpart JJJJJ §63.11201(a) dated 02/01/2013, 7 DE Admin. Code 1104 Section 2.1 dated 01/11/2017, 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988, and 7 DE Admin. Code Section 1130 Section 6.1.1 dated 08/11/2022.]
- 2.1.5.5 Total Particulate Matter (TPM or PT) emissions shall not exceed 4.46 tons per twelve (12) month rolling period regardless of fuel fired. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]
- 2.1.6 Non-Methane Organic Carbon (NMOC) Emissions
- 2.1.6.1 When firing 90% landfill gas / 10% natural gas blend, NMOC emissions shall be reduced by 98 weight-percent, or to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart WWW § 60.752(b)(2)(iii)(B) dated 09/21/2006 and 7 DE Admin. Code 1130 Section 6.1.1 dated 08/11/2022]
- 2.2 No person shall cause or allow the emission of visible air contaminants and/or smoke from a stationary or mobile source, the shade or appearance of which is greater than twenty percent (20%) opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. **(This condition was taken from Permit: AQM-003/00058)** [Reference 40 CFR Part 60 Subpart Db § 60.43b(f) dated 02/16/2012, 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988, and 7 DE Admin. Code 1114 Section 2.0 dated 11/11/2013]
- 2.3 Odors from this source shall not be detectable beyond the plant property line in sufficient quantities such as to cause a condition of air pollution. **(This condition was taken from Permit: AQM-003/00058)** [Reference 7 DE Admin. Code 1119 Section 2.0 dated 02/01/1981]

### **3. Operational Limitations**

- 3.1 The owner or operator shall operate the 110 MMBtu boiler only when the following control systems are in place and functioning properly: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]**
- 3.1.1 Ultra-Low NO<sub>x</sub> Burners

- 3.1.2 Flue Gas Recirculation
- 3.1.3 Oxidation Catalyst System
- 3.2 The owner or operator shall operate the 110 MMBtu boiler on the following fuels only: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]**
  - 3.2.1 No. 2 fuel oil for no more than 1,475 hours per year;
  - 3.2.2 Natural gas for up to 8,760 hours per year;
  - 3.2.3 A blend of landfill gas and natural gas not to exceed 90% landfill gas for up to 8,760 hours per year.
    - 3.2.3.1 The 90% landfill gas / 10% natural gas blend shall be based on the basis of the higher heating value (HHV) of each fuel.
- 3.3 The owner or operator shall operate the 110 MMBtu boiler on No. 2 fuel oil, diesel fuel or biodiesel blend with a sulfur content equal to or less than 0.0015% by weight. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code Section 1108 Section 2.3.1 dated 07/11/2013.]
- 3.4 The owner or operator shall minimize the boiler's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures. If manufacturer's recommended procedures are not available, the owner or operator must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 2(1) dated 09/14/2016, § 63.11201(b) dated 02/01/2013, and § 63.11223(b) dated 09/14/2016]
- 3.5 The owner or operator shall conduct a tune-up of the boiler biennially as follows: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 2(5) dated 09/14/2016, and § 63.11223(a) dated 09/14/2016]
  - 3.5.1 The tune-up must be performed no more than 25 months after the previous tune-up (or initial startup of the boiler); **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11210(g) dated 09/14/2016, and § 63.11223(b) dated 09/14/2016]
  - 3.5.2 The tune-up must be conducted while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11223(a) dated 09/14/2016]
  - 3.5.3 Inspect the burner, and clean or replace any components of the burner as necessary (the burner inspection may be delayed until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11223(b)(1) dated 09/14/2016]

**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 8

- 3.5.4 Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11223(b)(2) dated 09/14/2016]
- 3.5.5 Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the owner or operator may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11223(b)(3) dated 09/14/2016]
- 3.5.6 Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11223(b)(4) dated 09/14/2016]
- 3.5.7 Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11223(b)(5) dated 09/14/2016]
- 3.5.8 Maintain on-site and submit, a report containing the information in paragraphs 3.5.8.1 through 3.5.8.3. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11223(b)(6) dated 09/14/2016]
- 3.5.8.1 The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11223(b)(6)(i) dated 09/14/2016]
- 3.5.8.2 A description of any corrective actions taken as a part of the tune-up of the boiler. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11223(b)(6)(ii) dated 09/14/2016]
- 3.5.8.3 The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. **(This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07))** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11223(b)(6)(iii) dated 09/14/2016]
- 3.5.9 If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11223(b)(7) dated 09/14/2016]



**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 9

- 3.6 The owner or operator shall ensure that the operating load of the boiler does not exceed 110 percent of the average operating load recorded for the fuel or fuel blend being fired during the most recent performance test. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 3(7) dated 02/01/2013 and § 63.11201(c) dated 02/01/2013]
- 3.6.1 Operation above 110 percent of the established operating load for the fuel or fuel blend being fired constitutes a deviation from the operating limits established under 40 CFR Part 63 Subpart JJJJJ, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. Operating limits are confirmed or reestablished during performance tests. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11222(a)(1) dated 09/14/2016]
- 3.7 The owner or operator shall require the landfill gas supplier to continually monitor fuel gas quality by analyzing for CH<sub>4</sub>, CO<sub>2</sub>, O<sub>2</sub>, N<sub>2</sub> and sulfur via a permanently mounted gas chromatograph and/or equivalent equipment as it is delivered to the Atlas Point facility. Fuel gas quality data shall be made available to the Atlas Point facility at a minimum of once per month and upon request. The gas chromatograph and/or equivalent equipment used to analyze fuel gas quality shall be calibrated and maintained according to the manufacturer's specifications. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 08/11/22]
- 3.8 The landfill gas provided to the Atlas Point facility shall contain no more than 10 grains total sulfur per 100 dry standard cubic feet (170 ppmv total sulfur) on a daily average. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.1 08/11/22]
- 3.9 No owner or operator shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission, which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous dilutants to achieve compliance with an opacity standard or with a standard, which is based on the concentration of a pollutant in the gases discharged to the atmosphere. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1120 Section 1.6 dated 12/07/1998]
- 3.10 At all times, including periods of startup, shutdown, and malfunction, the owner or operator shall, to the extent practicable, maintain and operate the facility, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determinations of whether acceptable operating procedures are being used will be based on information available to the Department, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ §63.11205(a) dated 02/01/2013, 7 DE Admin. Code 1101 Section 3 dated 11/11/2013, 7 DE Admin. Code 1102 Section 11.6 dated 06/11/2006, and 7 DE Admin. Code 1120 Section 1.5.5 dated 12/07/1998]
- 3.11 All structural and mechanical components of the equipment covered by this permit and in use shall be maintained in proper operating condition. **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1101 Section 3 dated 11/11/2013 and 7 DE Admin. Code 1102 Section 11.6 dated 06/11/2006]

#### **4. Testing and Monitoring Requirements**

- 4.1 Initial Performance Test(s) – Within sixty (60) days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial startup of such facility, the owner or operator shall conduct performance tests and furnish the Department with a written report of the results of such performance tests in accordance with the provisions of Condition 4.3. These initial performance tests shall be carried out as follows: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(a) dated 08/30/2016, 40 CFR Part 63 Subpart JJJJJ § 63.11210(d) dated 09/14/2016, § 63.11210(j)(2) dated 09/14/2016, and 7 DE Admin. Code 1120 Section 1.4.1 dated 12/07/1998]
- 4.1.1 Compliance with the NO<sub>x</sub> emissions shall be determined as follows:
- 4.1.1.1 Compliance with the NO<sub>x</sub> emissions limits in Conditions 2.1.1.1, 2.1.1.2, and 2.1.1.3 shall be determined through Performance Testing in compliance with Condition 4.3. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 08/11/2022]
- 4.1.1.2 Compliance with the NO<sub>x</sub> emissions standard in 2.1.1.4 shall be determined through Performance Evaluation in compliance with Condition 4.4. **(This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07))** [Reference 40 CFR Part 60 Subpart Db § 60.46b(e)(1) dated 02/27/2014, 7 DE Admin. Code 1120 Section 1.5.1 dated 12/07/1988, 7 DE Admin. Code 1120 Section 26 dated 12/07/1988, and 7 DE Admin. Code 1130 Section 6.1.3.1.1 dated 08/11/2022]
- 4.1.1.2.1 A performance evaluation of the O<sub>2</sub> (or CO<sub>2</sub>) emissions shall be performed in conjunction with the NO<sub>x</sub> performance evaluation in compliance with Condition 4.4. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 08/11/2022]
- 4.1.2 Compliance with the SO<sub>x</sub> emissions shall be determined as follows:
- 4.1.2.1 Compliance with the SO<sub>x</sub> emissions limits in Conditions 2.1.2.1, 2.1.2.2, 2.1.2.3, and 2.1.2.4 shall be determined through Performance Testing in compliance with Condition 4.3. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR 60 Subpart Db § 60.42b(k)(2) dated 01/20/2011, 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988, and 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 08/11/2022]
- 4.1.3 Compliance with the CO emissions shall be determined as follows:
- 4.1.3.1 Compliance with the CO emissions limits in Conditions 2.1.3.1, 2.1.3.2, and 2.1.3.3 shall be determined through Performance Testing in compliance with Condition 4.3. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 08/11/2022]

4.1.4 Compliance with the VOC emissions shall be determined as follows:

4.1.4.1 Compliance with the VOC emissions limits in Conditions 2.1.4.1, 2.1.4.2, and 2.1.4.3 shall be determined through Performance Testing in compliance with Condition 4.3. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 08/11/2022]

4.1.5 Compliance with the PM emissions shall be determined as follows:

4.1.5.1 Compliance with the PM emissions limits in Conditions 2.1.5.1, 2.1.5.2, and 2.1.5.3 shall be determined through Performance Testing in compliance with Condition 4.3. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 08/11/2022]

4.1.5.2 Compliance with the PM emissions standard in Condition 2.1.5.4 shall be determined through performance tests in compliance with Condition 4.3 and the following: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart D § 60.46b(a) dated 02/27/2014, 40 CFR Part 63 Subpart JJJJJ § 63.11201(d) dated 02/01/2013, 40 CFR Part 63 Subpart JJJJJ Table 1(5) dated 09/14/2016, 7 DE Admin. Code 1120 Section 1.5.1 dated 12/07/1998, and 7 DE Admin. Code Section 26.0 dated 12/07/1988]

4.1.5.2.1 The owner or operator must select sampling ports location and the number of traverse points using Method 1 in appendix A-1 of 40 CFR Part 60. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 4(1)(a) dated 03/21/2011]

4.1.5.2.2 The owner or operator must determine velocity and volumetric flow-rate of the stack gas using Method 2, 2F, or 2G in appendix A-2 of 40 CFR Part 60. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 4(1)(b) dated 03/21/2011]

4.1.5.2.3 The owner or operator must determine oxygen and carbon dioxide concentrations of the stack gas using Method 3A or 3B in appendix A-2 of 40 CFR Part 60. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 4(1)(c) dated 03/21/2011]

4.1.5.2.4 The owner or operator must measure the moisture content of the stack gas using Method 4 in appendix A-3 of 40 CFR Part 60. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 4(1)(d) dated 03/21/2011]

4.1.5.2.5 The owner or operator may measure the particulate matter emission concentration using Method 5 in appendix A-3 of 40 CFR Part 60 at affected facilities without wet flue gas desulfurization (FGD) systems; and **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]**

**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 12

*[Reference 40 CFR Part 60 Subpart Db § 60.46b(d)(i) dated 02/27/2014 and 40 CFR Part 63 Subpart JJJJJ Table 4(1)(e) dated 03/21/2011, and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]*

4.1.5.2.6 The owner or operator may measure the particulate matter emission concentration using Method 17 in appendix A-6 of 40 CFR Part 60 provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]**

*[Reference 40 CFR Part 60 Subpart Db § 60.46b(d)(ii) dated 02/27/2014, 40 CFR Part 63 Subpart JJJJJ Table 4(1)(e) dated 03/21/2011, and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]*

4.1.5.2.7 The owner or operator must convert emissions concentrations to lb/MMBtu emission rates using Method 19 F-factor methodology in appendix A-7 of 40 CFR Part 60. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]**

*[Reference 40 CFR Part 63 Subpart JJJJJ § 63.11212(e) dated 02/01/2013, and 40 CFR Part 63 Subpart JJJJJ Table 4(1)(f) dated 03/21/2011]*

4.1.5.3 The owner or operator must conduct performance tests at the representative operating load conditions for each fuel or fuel mixture. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]**

*[Reference 40 CFR Part 63 Subpart JJJJJ § 63.11212(c) dated 02/01/2013, and 7 DE Admin. Code 1130 Section 6.1.3.2.3 dated 08/11/2022]*

4.1.6 Compliance with the NMOC emissions shall be determined as follows:

4.1.6.1 Compliance with the NMOC emissions limits in Condition 2.1.6.1 shall be determined through Performance Testing in compliance with Condition

4.3. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 40 CFR Part 60 Subpart WWW § 60.752(b)(2)(iii)(B) dated 09/21/2006 and 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 08/11/2022]*

4.1.7 Compliance with the operational limitation of Condition 3.6 shall be established as follows:

4.1.7.1 During Initial Performance Testing, a Maximum Operating Limit (MMBtu/hr heat input) for each fuel or fuel blend shall be calculated as follows:

4.1.7.1.1 The owner or operator must collect operating load data (fuel feed rate) every 15 minutes during the entire period of the performance test. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 40 CFR Part 63 Subpart JJJJJ Table 6(4)(a) dated 09/14/2016]*

4.1.7.1.2 Determine the average operating load by computing the hourly averages using all of the 15-minute readings taken during each performance test. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 40 CFR Part 63 Subpart JJJJJ Table 6(4)(b) dated 09/14/2016]*

- 4.1.7.1.3 Determine the average of the three test run averages during the performance test and multiply this by 1.1 (110 percent) as the operating limit. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 6(4)(c) dated 09/14/2016]
- 4.1.7.2 The owner or operator must conduct a performance evaluation of the CPMS in accordance with the site-specific monitoring plan described in Condition 4.7.4. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11205(c)(2) dated 02/01/2013 and § 63.11224(c)(3) dated 02/01/2013]
- 4.1.8 The owner or operator shall analyze the landfill gas for hydrogen sulfide (H<sub>2</sub>S), methane (CH<sub>4</sub>), carbon dioxide (CO<sub>2</sub>), oxygen (O<sub>2</sub>), and nitrogen (N<sub>2</sub>) concentrations during all performance tests using Department approved EPA test methods. Gas samples shall be taken at the fuel gas delivery point to the facility. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 08/11/2022]
- 4.2 Subsequent Performance Test(s) – The owner or operator shall conduct subsequent performance test(s) and furnish the Department with a written report of the results of such performance test(s) in accordance with the provisions of Condition 4.3. These subsequent performance test(s) shall be carried out as follows:
- 4.2.1 Annual Testing
- There is no annual testing required.
- 4.2.2 Triennial Testing
- 4.2.2.1 Compliance with the NO<sub>x</sub> emissions limits in Conditions 2.1.1.1, 2.1.1.2, and 2.1.1.3 shall be determined through Performance Testing in compliance with Condition 4.3. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 08/11/2022]
- 4.2.2.2 Compliance with the NO<sub>x</sub> emissions standard in 2.1.1.4 shall be determined through Performance Evaluation in compliance with Condition 4.4. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart D § 60.46b(e)(1) dated 02/27/2014, 7 DE Admin. Code 1120 Section 1.5.1 dated 12/07/1988, 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988, and 7 DE Admin. Code 1130 Section 6.1.3.1.1 dated 08/11/2022]
- 4.2.2.3 Compliance with the SO<sub>x</sub> emissions limits in Conditions 2.1.2.1, 2.1.2.2, 2.1.2.3, and 2.1.2.4 shall be determined through Performance Testing in compliance with Condition 4.3. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart D § 60.42b(k)(2) dated 01/20/2011, 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988, and 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 08/11/2022]
- 4.2.2.4 Compliance with the CO emissions limits in Conditions 2.1.3.1, 2.1.3.2, and 2.1.3.3 shall be determined through Performance Testing in

**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 14

compliance with Condition 4.3. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 08/11/2022]

4.2.2.5 Compliance with the VOC emissions limits in Conditions 2.1.4.1, 2.1.4.2, and 2.1.4.3 shall be determined through Performance Testing in compliance with Condition 4.3. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 08/11/2022]

4.2.2.6 Compliance with the PM emissions limits in Conditions 2.1.5.1, 2.1.5.2, and 2.1.5.3 shall be determined through Performance Testing in compliance with Condition 4.3. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 08/11/2022]

4.2.2.7 Compliance with the PM emissions standard in Condition 2.1.5.4 shall be determined through performance tests in compliance with Condition 4.3 and the following: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11220(a) dated 09/14/2016]

4.2.2.7.1 The owner or operator must select sampling ports location and the number of traverse points using Method 1 in appendix A-1 of 40 CFR Part 60. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 4(1)(a) dated 03/21/2011]

4.2.2.7.2 The owner or operator must determine velocity and volumetric flow-rate of the stack gas using Method 2, 2F, or 2G in appendix A-2 of 40 CFR Part 60. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 4(1)(b) dated 03/21/2011]

4.2.2.7.3 The owner or operator must determine oxygen and carbon dioxide concentrations of the stack gas using Method 3A or 3B in appendix A-2 of 40 CFR Part 60. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 4(1)(c) dated 03/21/2011]

4.2.2.7.4 The owner or operator must measure the moisture content of the stack gas using Method 4 in appendix A-3 of 40 CFR Part 60. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 4(1)(d) dated 03/21/2011]

4.2.2.7.5 The owner or operator may measure the particulate matter emission concentration using Method 5 in appendix A-3 of 40 CFR Part 60 at affected facilities without wet flue gas desulfurization (FGD) systems; and **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.46b(d)(i) dated 02/27/2014, 40 CFR Part 63 Subpart JJJJJ Table 4(1)(e) dated 03/21/2011, and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]

- 4.2.2.7.6 The owner or operator may measure the particulate matter emission concentration using Method 17 in appendix A-6 of 40 CFR Part 60 provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.46b(d)(ii) dated 02/27/2014, 40 CFR Part 63 Subpart JJJJJ Table 4(1)(e) dated 03/21/2011, 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]
- 4.2.2.7.7 The owner or operator must convert emissions concentrations to lb/MMBtu emission rates using Method 19 F-factor methodology in appendix A-7 of 40 CFR Part 60. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11212(e) dated 02/01/2013, and 40 CFR Part 63 Subpart JJJJJ Table 4(1)(f) dated 03/21/2011]
- 4.2.2.8 Compliance with the NMOC emissions limits in Condition 2.1.6.1 shall be determined through Performance Testing in compliance with Condition 4.3. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart WWW § 60.752(b)(2)(iii)(B) dated 9/21/2006, 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988, and 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 08/11/2022]
- 4.2.2.9 Compliance with the operational limitation of Condition 3.6 shall be re-established by calculating the Maximum Operating Limit (MMBtu/hr heat input) for each fuel or fuel blend as follows:
- 4.2.2.9.1 The owner or operator must collect operating load data (fuel feed rate) every 15 minutes during the entire period of the performance test. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 6(4)(a) dated 09/14/2016]
- 4.2.2.9.2 Determine the average operating load by computing the hourly averages using all of the 15-minute readings taken during each performance test. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 6(4)(b) dated 09/14/2016]
- 4.2.2.9.3 Determine the average of the three test run averages during the performance test and multiply this by 1.1 (110 percent) as the operating limit. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 6(4)(c) dated 09/14/2016]
- 4.2.2.10 The owner or operator shall analyze the landfill gas for hydrogen sulfide (H<sub>2</sub>S), methane (CH<sub>4</sub>), carbon dioxide (CO<sub>2</sub>), oxygen (O<sub>2</sub>), and nitrogen (N<sub>2</sub>) concentrations during all performance tests using Department approved EPA test methods. Gas samples shall be taken at the fuel gas delivery point to the facility. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 08/11/2022]

4.3 Performance Testing

4.3.1 Notification of Performance Test

Site-Specific Test Plan (Test Protocol)

One (1) original hard copy and one (1) PDF copy of the notification of performance test and the site-specific test plan (test protocol) shall be submitted a minimum of sixty (60) days in advance of the scheduled test date to the addresses in Condition 4.3.6. The tests shall be conducted in accordance with the State of Delaware and Federal Requirements. **[This condition was modified from and will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]**

*[Reference 40 CFR Part 60 Subpart A § 60.8(d) dated 08/30/2016, 40 CFR Part 63 Subpart A § 63.7(b)(1) dated 11/14/2018, and § 63.7(c)(2)(iv) dated 11/14/2018, 40 CFR Part 63 Subpart A § 63.9(e) dated 11/19/2020, and 7 DE Admin. Code 1117 Section 2.2 dated 7/17/84]*

4.3.1.1 The site-specific test plan (test protocol) shall include, at a minimum, a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data. **[This condition was modified from and will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 40 CFR Part 63 Subpart A § 63.7(c)(2)(i) dated 11/14/2018, and 40 CFR Part 63 Subpart JJJJJ § 63.11212(a) dated 02/01/2013]*

4.3.1.2 In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in the test protocol, or negotiated with the Department after such submittal due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Secretary as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 40 CFR Part 63 Subpart A § 63.7(b)(2) dated 11/14/2018]*

4.3.1.3 The site-specific test plan (test protocol) shall be approved by the Department prior to initiating any testing. Upon approval of the test protocol, the Company shall schedule the compliance demonstration with the Source Testing Engineer. The Department must observe the test for the results to be considered for acceptance. **[This condition was modified from and will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 7 DE Admin. Code 1102 Section 11.7 dated 06/11/2006 and 7 DE Admin. Code 1120 Section 1.4.2 dated 12/07/1988]*

4.3.2 The owner or operator shall provide, or cause to be provided, performance testing facilities as follows:

4.3.2.1 Sampling ports adequate for test methods applicable to such facility. This includes: **[This condition will be transferred to Permit: AQM-003/00058-**



**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 17

**Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(e)(1) dated 08/30/2016]

- 4.3.2.1.1 Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and **[This condition will be transferred to AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(e)(1)(i) dated 08/30/2016]
- 4.3.2.1.2 Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(e)(1)(ii) dated 08/30/2016 and § 60.8(h) dated 08/30/2016]
- 4.3.2.2 Safe sampling platform(s); **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(e)(2) dated 08/30/2016, and 7 DE Admin. Code 1120 Section 1.4.4.2 dated 12/07/1988]
- 4.3.2.3 Safe access to sampling platform(s); and **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(e)(3) dated 08/30/2016 and 7 DE Admin. Code 1120 Section 1.4.4.3 dated 12/07/1988]
- 4.3.2.4 Utilities for sampling and testing equipment. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(e)(4) dated 08/30/2016 and 7 DE Admin. Code 1120 Section 1.4.4.4 dated 12/07/1988]
- 4.3.3 Each performance test shall be determined by Reference Methods 1 through 12 and 15 through 25 set forth in Appendix A of 40 CFR Part 60, revised July 1, 1982. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1120 Section 1.5.2 dated 12/07/1988]
- 4.3.4 Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standards. For the purpose of determining compliance, the arithmetic mean of results of the three runs shall apply. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(f)(1) dated 08/30/2016, 40 CFR Part 63 Subpart A § 63.7(e)(e) dated 11/14/2018, 40 CFR Part 63 Subpart JJJJJ § 63.11212(d) dated 02/01/2013, and 7 DE Admin. Code 1120 Section 1.4.3 dated 12/07/1988, Section 1.4.5 dated 12/07/1988]
- 4.3.5 Each performance test shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(g) dated 08/30/2016 and 40 CFR Part 63 Subpart A § 63.7(c)(2)(iii) dated 11/14/2018]

- 4.3.5.1 A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(g) dated 08/30/2016 and 40 CFR Part 63 Subpart A § 63.7(c)(2)(iii) dated 11/14/2018]
- 4.3.5.2 The owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an accredited audit sample provider (AASP) for each test method used for regulatory compliance purposes. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(g)(1) dated 08/30/2016 and 40 CFR Part 63 Subpart A § 63.7(c)(2)(iii)(A) dated 11/14/2018]
- 4.3.5.2.1 “Commercially available” means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, [www.epa.gov/ttn/emc](http://www.epa.gov/ttn/emc), to confirm whether there is a source that can supply an audit sample for that method. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(g)(1) dated 08/30/2016 and 40 CFR Part 63 Subpart A § 63.7(c)(2)(iii)(A) dated 11/14/2018]
- 4.3.5.2.2 If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(g)(1) dated 08/30/2016 and 40 CFR Part 63 Subpart A § 63.7(c)(2)(iii)(A) dated 11/14/2018]
- 4.3.5.3 No audit samples are required for the following test methods: Methods 3A and 3C of Appendix A–3 of 40 CFR Part 60, Methods 6C, 7E, 9, and 10 of Appendix A–4 of 40 CFR Part 60, Methods 18 and 19 of Appendix A–6 of 40 CFR Part 60, Methods 20, 22, and 25A of Appendix A–7 of 40 CFR Part 60, Methods 30A and 30B of Appendix A–8 of 40 CFR Part 60, and Methods 303, 318, 320, and 321 of Appendix A of 40 CFR Part 63. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(g)(1) dated 08/30/2016 and 40 CFR Part 63 Subpart A § 63.7(c)(2)(iii)(A) dated 11/14/2018]
- 4.3.6 The final results of the testing shall be submitted to the Department within sixty (60) days of the test completion. One (1) original hard copy and one (1) PDF copy of the test report shall be submitted to the addresses below: **[This condition was modified from and will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.7(g)(1) dated 11/14/2018 and 7 DE Admin. Code 1130 Section 6.1.3 dated 08/11/2022]

**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 19

Original Hard Copy to:

Engineering & Compliance Section  
Attn: Source Testing Engineer  
715 Grantham Lane  
New Castle, DE 19720

PDF Copy to:

Engineering & Compliance Section  
E-mail of Source Testing Engineer  
E-mail of Permit Engineer  
dnrec\_daq\_stacktest@delaware.gov

- 4.3.7 The final results of the testing shall be submitted to the US EPA within sixty (60) days of test completions as follows: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(e)(1) dated 09/14/2016]

- 4.3.7.1 For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site ([https://www3.epa.gov/ttn/chief/ert/ert\\_info.html](https://www3.epa.gov/ttn/chief/ert/ert_info.html)) at the time of the test, the owner or operator must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>).) Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If the owner or operator claims that some of the performance test information being submitted is confidential business information (CBI), the owner or operator must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to:

U.S. EPA/OAQPS/CORE CBI Office  
Attention: Group Leader  
Measurement Policy Group  
MD C404-02  
4930 Old Page Rd.  
Durham, NC 27703

The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(e)(1)(i) dated 09/14/2016]

- 4.3.7.2 For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, the owner or operator must submit the results of the performance test to:

Administrator  
Environmental Protection Agency  
Region III  
1600 JFK Blvd.

**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 20

Philadelphia, PA 19103-2029

**[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(e)(1)(ii) dated 09/14/2016]

4.3.8 The final report of the results must meet the following requirements to be considered valid: **[This condition was modified from and will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]**

4.3.8.1 The full report shall include the emissions test report (including raw data from the test) as well as a summary of the results and statement of compliance or non-compliance with permit conditions; [Reference 7 **DE Admin. Code** 1117 Section 2.6 dated 07/17/1984]

4.3.8.2 Emissions Test Report

4.3.8.2.1 General identification information for the facility including a mailing address, the physical address, the owner or operator or responsible official (where applicable) and his/her email address, and the appropriate Federal Registry System (FRS) number for the facility; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(f)(2)(i) dated 08/30/2016]

4.3.8.2.2 Purpose of the test including the applicable regulation(s) requiring the test, the pollutant(s) and other parameters being measured, the applicable emission standard and any process parameter component, and a brief process description; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(f)(2)(ii) dated 08/30/2016]

4.3.8.2.3 Description of the emission unit tested including fuel burned, control devices, and vent characteristics; the appropriate source classification code (SCC); the permitted maximum process rate (where applicable); and the sampling location; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(f)(2)(iii) dated 08/30/2016]

4.3.8.2.4 Description of sampling and analysis procedures used and any modifications to standard procedures, quality assurance procedures and results, record of process operating conditions that demonstrate the applicable test conditions are met, and values for any operating parameters for which limits were being set during the test; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(f)(2)(iv) dated 08/30/2016, 40 CFR Part 60 Subpart Db § 60.49(b) dated 02/16/2012, and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1998]

4.3.8.2.5 Where a test method requires record keeping or reporting, the following shall be included: Record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, chain-of-custody documentation, and example calculations for reported results; and **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(f)(2)(v) dated 08/30/2016]

4.3.8.2.6 Identification of the company conducting the performance test including the primary office address, telephone number, and the contact for this test program including his/her email address. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(f)(2)(vi) dated 08/30/2016]

4.3.8.3 Summary of Results and Statement of Compliance or Non-Compliance  
The owner or operator shall supplement the report from the emissions testing firm with a summary of results that includes the following information: **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1117 Section 2.6 dated 07/17/1984]

4.3.8.3.1 A statement that the owner or operator has reviewed the report from the emissions testing firm and agrees with the findings.

4.3.8.3.2 Permit number(s) and condition(s) which are the basis for the compliance evaluation.

4.3.8.3.3 Summary of results with respect to each permit condition.

4.3.8.3.4 Statement of compliance or non-compliance with each permit condition.

4.3.8.4 The Test Report shall be certified by a Responsible Official as to truth, accuracy, and completeness as required by Condition 6.9 of this permit. **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 5.6 dated 11/15/93 and 6.3.1 dated 12/11/00]

4.3.9 The results must demonstrate to the Department's satisfaction that the emission unit is operating in compliance with the applicable regulations and conditions of this permit; if the final report of the test results shows non-compliance the owner or operator shall propose corrective action(s). Failure to demonstrate compliance through the test may result in enforcement action. **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1102 Section 11.3 dated 06/11/2006]

#### 4.4 Performance Evaluations

4.4.1 Notification of Performance Evaluation  
Site-Specific Performance Evaluation Test Plan (Test Protocol)

One (1) original hard copy and one (1) PDF copy of the notification of performance evaluation and the site-specific performance evaluation test plan (test protocol) shall be submitted a minimum of sixty (60) in advance of the scheduled test date to the addresses in Condition 4.1.3. The tests shall be conducted in accordance with the State of Delaware and Federal Requirements. **[This condition was modified from and will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.8(d) dated 08/30/2016 and 7 DE Admin. Code 1117 Section 2.1 dated 7/17/84]

4.4.1.1 The site-specific performance evaluation test plan (test protocol) shall be approved by the Department prior to initiating any testing. Upon approval of the test protocol, the Company shall schedule the compliance demonstration with the Source Testing Engineer. **[This condition was modified from and will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1102 Section 11.7 dated 06/11/2006, 7 DE Admin. Code 1120 Section 1.4.2 dated 12/07/1988]

4.4.2 Continuous monitoring system performance evaluations of the COMS and CEMS units shall be performed during or within 30 days after the performance testing required by Conditions 4.1 and 4.2. **(This condition will be transferred to Permit: AQM-003/00058)** [Reference 7 DE Admin. Code 1120 Section 1.3.3 dated 12/07/1988]

4.4.3 These performance evaluations shall be conducted in accordance with the following specifications and procedures:

4.4.3.1 Continuous monitoring systems for measuring opacity of emissions shall comply with Performance Specification 1 of 40 CFR Part 60 Appendix B. **(This condition will be transferred to Permit: AQM-003/00058)** [Reference 7 DE Admin. Code 1120 Section 1.3.3.1 dated 12/07/1988]

4.4.3.2 Continuous monitoring systems for measuring nitrogen oxides emissions shall comply with Performance Specification 2 of 40 CFR Part 60 Appendix B. **(This condition will be transferred to Permit: AQM-003/00058)** [Reference 7 DE Admin. Code 1120 Section 1.3.3.2 dated 12/07/1988]

4.4.3.3 Continuous monitoring systems for measuring the oxygen content or carbon dioxide content of effluent gases shall comply with Performance Specification 3 of 40 CFR Part 60 Appendix B. **(This will be transferred to Permit: AQM-003/00058)** [Reference 7 DE Admin. Code 1120 Section 1.3.3.4 dated 12/07/1988]

4.4.4 The final results of the evaluation shall be submitted to the Department within sixty (60) days of the evaluation completion. One (1) original hard copy and one (1) PDF copy of the test report shall be submitted to the addresses below: **[This condition was modified from and will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3 dated 08/11/2022]

Original Hard Copy to:  
Engineering & Compliance Section  
Attn: Source Testing Engineer  
715 Grantham Lane  
New Castle, DE 19720

PDF Copy to:  
Engineering & Compliance Section  
E-mail of Source Testing Engineer  
E-mail of Permit Engineer  
dnrec\_daq\_stacktest@delaware.gov

- 4.5 The owner or operator shall install, calibrate, maintain, and operate a continuous opacity monitoring systems (COMS) for measuring the opacity of emissions discharged to the atmosphere and record the output of the system. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.48(a) dated 02/16/2012 and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]
- 4.5.1 The continuous opacity monitoring system (COMS) shall be installed and in operation prior to conducting the performance testing required by Condition 4.1. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A §60.13(b) dated 10/06/1975 and 7 DE Admin. Code 1120 Section 1.3.2 dated 12/07/1988]
- 4.5.1.1 Verification of operational status shall, as minimum, consist of the following: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A §60.13(b) dated 10/06/1975 and 7 DE Admin. Code 1120 Section 1.3.2 dated 12/07/1988]
- 4.5.1.1.1 Completion of the conditioning period specified by applicable requirements. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1120 Section 1.3.2.1 dated 12/07/1988]
- 4.5.1.1.2 Completion of the manufacturer's written requirements or recommendations for checking the operation or calibration of the device **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A §60.13(b) dated 10/06/1975 and 7 DE Admin. Code 1120 Section 1.3.2.2 dated 12/07/1988]
- 4.5.1.2 The continuous opacity monitoring system (COMS) shall be installed such that representative measurements of emissions are obtained. Additional procedures for location of CEMS are contained in Performance Specification 1 of 40 CFR Part 60 Appendix B. **(This condition was taken from Permit: AQM-003/00058)** [Reference 7 DE Admin. Code 1120 Section 1.3.5 dated 12/07/1988]
- 4.5.2 Opacity measured by COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A §60.13(e)(1) dated 10/06/1975]
- 4.5.3 The owner or operator shall reduce all opacity data to 15-second averages. Consecutive 15-second averages, each less than the applicable standard may be recorded cumulatively. The 15-second averages in excess of the applicable standard shall be recorded for the time of occurrence. Any such averages in excess of the applicable standard shall be reported to the Department as excess emissions. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1120 Section 1.3.10 dated 12/07/1988]
- 4.5.4 The owner or operator shall develop and implement a QC program which must, at a minimum, include written procedures which describe in detail complete step-by-step procedures and operations for the activities in paragraphs Conditions

**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 24

4.5.5.1 through 4.5.5.4: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Appendix F Procedure 3 Section 9.0 dated 03/29/2023]

4.5.4.1 Procedures for performing drift checks, including both zero and upscale drift and the status indicators check in accordance with 40 CFR Part 60 Appendix F Procedure 3 Section 10.1. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Appendix F Procedure 3 Section 9.1 and Section 10.1 dated 03/29/2023]

4.5.4.2 Procedures for performing quarterly performance audits in accordance with 40 CFR Part 60 Appendix F Procedure 3 Section 10.2. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Appendix F Procedure 3 Section 9.2 and Section 10.2 dated 03/29/2023]

4.5.4.3 A means of checking the zero alignment of the COMS in accordance with 40 CFR Part 60 Appendix F Procedure 3 Section 10.3. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Appendix F Procedure 3 Section 9.3 and Section 10.3 dated 03/29/2023]

4.5.4.4 A program of corrective action for a malfunctioning COMS. The corrective action must include, at a minimum, the routine/preventative maintenance including various types of analyzer repairs as well as what diagnostic testing must be performed after each activity to ensure the COMS is collecting valid, quality-assured data. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Appendix F Procedure 3 Section 9.4 and Section 10.5 dated 03/29/2023]

4.5.5 The owner or operator shall check the zero and upscale (span) calibration drifts at least once each operating day in accordance with the written procedure referenced in Condition 4.5.4. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A §60.13(d)(1) dated 10/06/1975 and 7 DE Admin. Code 1120 Section 1.3.5 dated 12/07/1988]

4.5.5.1 The acceptable range of zero and upscale calibration materials is defined in the applicable version of Performance Specification 1 in Appendix B of 40 CFR Part 60. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A §60.13(d)(1) dated 10/06/1975]

4.5.5.2 The optical surfaces, exposed to the effluent gases, must be cleaned before performing the zero and upscale drift adjustments, except for systems using automatic zero adjustments. The optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A §60.13(d)(1) dated 10/06/1975]

4.5.5.3 The owner or operator shall use an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obstruction of the light beam. This method must provide a



system check of all active analyzer internal optics with power or curvature, all active electronic circuitry including the light source and photodetector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A §60.13(d)(2) dated 10/06/1975]

- 4.6 The owner or operator of shall install, calibrate, maintain, and operate continuous emissions monitoring systems (CEMS) for measuring NO<sub>x</sub> and O<sub>2</sub> (or CO<sub>2</sub>) emissions discharged to the atmosphere, and shall record the output of the system. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.48(b) dated 02/16/2012 and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]
- 4.6.1 The NO<sub>x</sub> and O<sub>2</sub> (or CO<sub>2</sub>) continuous emissions monitoring systems (CEMS) shall be installed and in operation prior to conducting the performance testing required by Condition 4.1. **(This condition was taken from Permit: AQM-003/00058)** [Reference 40 CFR Part 60 Subpart A §60.13(b) dated 10/06/1975 and 7 DE Admin. Code 1120 Section 1.3.2 dated 12/07/1988]
- 4.6.1.1 Verification of operational status shall, as minimum, consist of the following: **(This condition was taken from Permit: AQM-003/00058)** [Reference 40 CFR Part 60 Subpart A §60.13(b) dated 10/06/1975 and 7 DE Admin. Code 1120 Section 1.3.2 dated 12/07/1988]
- 4.6.1.1.1 Completion of the conditioning period specified by applicable requirements. **(This condition was taken from Permit: AQM-003/00058)** [Reference 7 DE Admin. Code 1120 Section 1.3.2.1 dated 12/07/1988]
- 4.6.1.1.2 Completion of the manufacturer's written requirements or recommendations for checking the operation or calibration of the device **(This condition was taken from Permit: AQM-003/00058)** [Reference 40 CFR Part 60 Subpart A §60.13(b) dated 10/06/1975 and 7 DE Admin. Code 1120 Section 1.3.2.2 dated 12/07/1988]
- 4.6.1.2 The NO<sub>x</sub> and O<sub>2</sub> (or CO<sub>2</sub>) continuous emissions monitoring systems (CEMS) shall be installed such that representative measurements of emissions are obtained. Additional procedures for location of CEMS are contained in Performance Specification 2 and Performance Specification 3 of 40 CFR Part 60 Appendix B. **(This condition was taken from Permit: AQM-003/00058)** [Reference 7 DE Admin. Code 1120 Section 1.3.9 dated 12/07/1988]
- 4.6.2 The CEMS shall be operated and data recorded during all periods of operation of the boiler except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.48b(c) dated 02/16/2012 and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]
- 4.6.3 Compliance with the NO<sub>x</sub> standard in Condition 2.1.1.4 shall be determined through Performance Testing using the NO<sub>x</sub> CEMS in accordance with 40 CFR Part 60 Subpart A § 60.8. **[This condition will be transferred to Permit: AQM-**

**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 26

**003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.46b(c) and § 60.46b(e) dated 02/27/2014, and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]

4.6.3.1 For the initial Performance Test, NO<sub>x</sub> from Boiler 6 shall be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

**[This condition will be transferred to AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.46b(e)(1) dated 02/27/2014, and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]

4.6.4 NO<sub>x</sub> and O<sub>2</sub> (or CO<sub>2</sub>) measured by CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.13(e)(2) dated 10/06/1975, and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]

4.6.5 The owner or operator shall reduce all NO<sub>x</sub> and O<sub>2</sub> (or CO<sub>2</sub>) data to one-hour averages that shall be computed from four or more data points, equally spaced over each one-hour period. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.13(h)(2) dated 10/06/1975, 40 CFR Part 60 Subpart Db § 60.48b(d) dated 02/16/2012, 7 DE Admin. Code 1120 Section 1.3.11 dated 12/07/1988 and Section 26.0 dated 12/07/1988]

4.6.5.1 Except as provided under Condition 4.6.5.2, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.13(h)(2)(ii) dated 10/06/1975]

4.6.5.2 For any operating hour in which required maintenance or quality-assurance activities are performed:

4.6.5.2.1 If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.13(h)(2)(iii)(A) dated 10/06/1975]

4.6.5.2.2 If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.13(h)(2)(iii)(B) dated 10/06/1975]

4.6.5.3 If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of Conditions 4.6.7.2.1 and 4.6.7.2.2 are met, based solely on valid data recorded after the successful calibration. **[This condition will be transferred to Permit:**

**AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.13(h)(2)(iv) dated 10/06/1975]

4.6.5.4 For each full or partial operating hour, all valid data points shall be used to calculate the hourly average. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.13(h)(2)(v) dated 10/06/1975]

4.6.5.5 Data recorded during periods of system breakdown, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.13(h)(2)(vi) dated 10/06/1975, 40 CFR Part 60 Subpart Db §60.48b(d) dated 02/16/2012, 7 DE Admin. Code 1120 Section 1.3.11 dated 12/07/1988 and Section 26.0 dated 12/07/1988]

4.6.5.6 An arithmetic or integrated average of all data may be used. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.13(h)(2)(ix) dated 10/06/1975, 7 DE Admin. Code 1120 Section 1.3.11 dated 12/07/1988]

4.6.5.7 The data output of all continuous monitoring systems may be recorded in reduced or nonreduced form. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.13(h)(2)(ix) dated 10/06/1975, 7 DE Admin. Code 1120 Section 1.3.11 dated 12/07/1988]

4.6.5.8 Any excess emissions shall be converted into the units of standard or permit limit. After conversion into units of the standard or permit limit, the data may be rounded to the same number of significant digits used in the standard or permit limit. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.13(h)(3) dated 10/06/1975, 40 CFR Part 60 Subpart Db §60.48b(d) dated 02/16/2012, 7 DE Admin. Code 1120 Section 1.3.11 dated 12/07/1988 and Section 26.0 dated 12/07/1988]

4.6.6 When NO<sub>x</sub> emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of Appendix A of 40 CFR Part 60, Method 7A of Appendix A of 40 CFR Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db §60.48b(f) dated 02/16/2012, and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]

4.6.7 The owner or operator shall develop and implement a QC program which must include written procedures describing in detail, complete, step-by-step procedures and operations for each of the activities in Conditions 4.6.7.1 through 4.6.7.6. As described in 40 CFR Part 60 Appendix F Procedure 1 Section 5.2, whenever excessive inaccuracies occur for two consecutive quarters, the owner or operator must revise the current written procedures or modify or replace the CEMS to correct the deficiency causing the excessive inaccuracies. These written

procedures must be kept on record and available for inspection. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Appendix F Procedure 1 Section 3 dated 03/29/2023]

4.6.7.1 Calibration of CEMS.

4.6.7.2 Calibration drift determination and adjustment of CEMS.

4.6.7.3 Preventive maintenance of CEMS (including spare parts inventory).

4.6.7.4 Data recording, calculations, and reporting.

4.6.7.5 Accuracy audit procedures including sampling and analysis methods.

4.6.7.6 Program of corrective action for malfunctioning CEMS.

4.6.8 The owner or operator shall check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once each operating day in accordance with a written procedure developed in accordance with Performance Specifications 2 and 3 of Appendix B of 40 CFR Part 60. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A §60.13(d)(1) dated 10/06/1975, 40 CFR Part 60 Appendix B Performance Specification 2 Section 8.3 dated 05/25/1983, 40 CFR Part 60 Appendix F Procedure 1 Section 4 dated 03/29/2023, and 7 DE Admin. Code 1120 Section 1.3.5 dated 12/07/1988]

4.6.8.1 The zero and span must, at a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable Performance Specification 2 in Appendix B of 40 CFR Part 60. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A §60.13(d)(1) dated 10/06/1975]

4.6.8.2 The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A §60.13(d)(1) dated 10/06/1975]

4.6.8.3 NO<sub>x</sub> span values shall be 500 ppm. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db §60.48b(e)(2)(i) dated 02/16/2012, and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]

4.6.9 The owner or operator shall perform quarterly data accuracy assessments as follows: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Appendix F Procedure 1 Section 5 dated 03/29/2023]

4.6.9.1 A relative accuracy test audit (RATA) shall be performed at least once every 4 calendar quarters. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Appendix F Procedure 1 Section 5.1.1 dated 03/29/2023]

4.6.9.2 A cylinder gas audit (CGA) or relative accuracy audit (RAA) may be performed during the calendar quarters that a RATA is not performed, but each audit (CGA or RAA) may not be performed more than three (3) quarters in succession. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Appendix F Procedure 1 Section 5.1.2 and 5.1.3 dated 03/29/2023]

4.6.9.3 Successive quarterly audits shall occur no closer than 2 months apart. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Appendix F Procedure 1 Section 5.1 dated 03/29/2023]

4.7 The owner or operator shall install, calibrate, maintain, and operate a continuous parameter monitoring system (CPMS) for measuring the operating load (fuel feed rate), and shall record the output of the system. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11224(d) dated 02/01/2013]

4.7.1 The CPMS must complete a minimum of one cycle of operation every 15 minutes. The owner or operator must have data values from a minimum of four successive cycles of operation representing each of the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CPMS calibration, quality assurance, or maintenance activities are being performed, to have a valid hour of data. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11224(d)(1) dated 02/01/2013 and Table 7(9)(a) dated 02/01/2013]

4.7.2 The owner or operator must calculate hourly arithmetic averages from each hour of CPMS data in units of the operating limit and reduce this data to 30-day rolling averages. All recorded data, except as noted in 40 CFR Part 63 § 63.11221(c), must be used. The following equation shall be used for the calculation of the 30-day rolling averages: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 7(9)(b) dated 02/01/2013]

$$30 - \text{Day Rolling Average} = \frac{\sum_{i=1}^n H_{pvi}}{n}$$

Where:

$H_{pvi}$  = the hourly parameter value for hour  
 $n$  = the number of valid hourly parameter values collected over 30 boiler operating days

4.7.3 The 30-day rolling average shall be maintained below the operating limit established during performance testing. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ Table 7(9)(c) dated 02/01/2013]

4.7.4 The owner or operator shall conduct a performance evaluation of the CPMS during any performance test required by 40 CFR Part 63 Subpart JJJJJ. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.8(e)(4) dated 11/14/2018]

- 4.7.5 The owner or operator must develop a site-specific monitoring plan and submit to the Administrator for approval at least 60 days before the performance evaluation of the CPMS. The site-specific monitoring plan shall address the following, at a minimum: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.8(e)(3)(i) dated 11/14/2018, 40 CFR Part 63 Subpart JJJJJ § 63.11205(c)(1) dated 02/01/2013, § 63.11221(a) dated 09/14/2016 and § 63.11224(c)(1) dated 02/01/2013]
- 4.7.5.1 Performance and equipment specifications for the parametric signal analyzer, and the data collection and reduction systems. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11205(c)(1)(ii) dated 02/01/2013 and § 63.11224(c)(1)(ii) dated 02/01/2013]
- 4.7.5.2 Performance evaluation procedures and acceptance criteria (e.g., calibrations). **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11205(c)(1)(iii) dated 02/01/2013 and § 63.11224(c)(1)(iii) dated 02/01/2013]
- 4.7.5.3 Ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR Part 63 Subpart A § 63.8(c)(1), (3), and (4)(ii). **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11205(c)(1)(iv) dated 02/01/2013 and § 63.11224(c)(2)(i) dated 02/01/2013]
- 4.7.5.4 Ongoing data quality assurance procedures shall include, at a minimum, a written protocol that describes procedures for each of the following operations: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.8(d)(2) dated 11/14/2018, 40 CFR Part 63 Subpart JJJJJ § 63.11205(c)(1)(v) dated 02/01/2013 and § 63.11224(c)(2)(ii) dated 02/01/2013]
- 4.7.5.4.1 Initial and any subsequent calibration of the CPMS; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.8(d)(2)(i) dated 11/14/2018]
- 4.7.5.4.2 Determination and adjustment of the calibration drift of the CPMS; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.8(d)(2)(ii) dated 11/14/2018]
- 4.7.5.4.3 Preventive maintenance of the CPMS, including spare parts inventory; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.8(d)(2)(iii) dated 11/14/2018]
- 4.7.5.4.4 Data recording, calculations, and reporting; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.8(d)(2)(iv) dated 11/14/2018]
- 4.7.5.4.5 Accuracy audit procedures, including sampling and analysis methods; and **[This condition will be transferred to Permit: AQM-**

**003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.8(d)(2)(v) dated 11/14/2018]

4.7.5.4.6 Program of corrective action for a malfunctioning CPMS. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.8(d)(2)(vi) dated 11/14/2018]

4.7.5.4.7 The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of 40 CFR Part 63 Subpart JJJJJ, to be made available for inspection, upon request. If the site-specific monitoring plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the site-specific monitoring plan on record to be made available for inspection, upon request, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.8(d)(3) dated 11/14/2018]

4.7.5.5 Ongoing recordkeeping and reporting procedures in accordance with the general requirements of 40 CFR Part 63 Subpart A § 63.10(c) (as applicable in Table 8 to this subpart), (e)(1), and (e)(2)(i). **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11205(c)(1)(vi) dated 02/01/2013 and § 63.11224(c)(2)(iii) dated 02/01/2013]

4.7.5.6 The owner or operator must:

4.7.5.6.1 Operate the CPMS and collect data at all required intervals at all times the affected source is operating and compliance is required, except for periods of monitoring system malfunctions or out-of-control periods [see 40 CFR Part 63 Subpart A § 63.8(c)(7)], repairs associated with monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks, required zero and span adjustments, and scheduled CPMS maintenance as defined in this site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The CPMS shall be repaired in response to monitoring system malfunctions or out-of-control periods and shall be returned to operation as expeditiously as practicable. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]**

**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 32

*[Reference 40 CFR Part 63 Subpart JJJJJ § 63.11221(b) dated 09/14/2016, § 63.11222(a)(1) dated 09/14/2016 and § 63.11224(d)(3) dated 02/01/2013]*

4.7.5.6.2 Use all of the data collected during all periods in assessing compliance, except for data collected during periods of startup and shutdown, monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or quality control activities in calculations used to report emissions or operating levels. Any such periods must be reported according to the requirements in 40 CFR Part 63 Subpart JJJJJ § 63.11225. All of the data collected during all other periods must be used in assessing the operation of the control device and associated control system. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 40 CFR Part 63 Subpart JJJJJ § 63.11221(c) dated 09/14/2016 and § 63.11224(d)(3) dated 02/01/2013]*

4.7.5.6.3 Determine if periods when CPMS data are unavailable are monitoring deviations. Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in the site-specific monitoring plan), failure to collect required data is a deviation of the monitoring requirements. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 40 CFR Part 63 Subpart JJJJJ § 63.11221(d) dated 09/14/2016 and § 63.11224(d)(3) dated 02/01/2013]*

4.7.5.6.4 Record the results of each inspection, calibration, and validation check. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 40 CFR Part 63 Subpart JJJJJ § 63.11224(d)(4) dated 02/01/2013]*

4.7.6 The final results of the evaluation shall be submitted to the Department within sixty (60) days of the evaluation completion. One (1) original hard copy and one (1) PDF copy of the test report shall be submitted to the addresses below:  
*[Reference 40 CFR Part 63 Subpart A § 63.7(g)(1) dated 11/14/2018 and 7 DE Admin. Code 1130 Section 6.1.3 dated 08/11/2022]*

Original Hard Copy to:  
Engineering & Compliance Section  
Attn: Source Testing Engineer  
715 Grantham Lane  
New Castle, DE 19720

PDF Copy to:  
Engineering & Compliance Section  
E-mail of Source Testing Engineer  
E-mail of Permit Engineer  
dnrec\_daq\_stacktest@delaware.gov



4.7.7 The owner or operator shall operate and maintain the CPMS in continuous operation in accordance with the site-specific monitoring plan described in Condition 4.7.4. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11205(c)(3) dated 02/01/2013 and § 63.11224(c)(4) dated 02/01/2013]

4.8 Continuous Compliance Activities

4.8.1 Compliance with the NO<sub>x</sub> emissions limit in Condition 2.1.1.5 shall be demonstrated through recordkeeping. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.2.3 dated 08/11/2022]

4.8.2 Compliance with the SO<sub>x</sub> emissions limit in Condition 2.1.2.5 shall be demonstrated through recordkeeping. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.2.3 dated 08/11/2022]

4.8.3 Compliance with the CO emissions limit in Condition 2.1.3.4 shall be demonstrated through recordkeeping. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.2.3 dated 08/11/2022]

4.8.4 Compliance with the VOC emissions limit in Condition 2.1.4.4 shall be demonstrated through recordkeeping. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.2.3 dated 08/11/2022]

4.8.5 Compliance with the PM emissions limit in Condition 2.1.5.5 shall be demonstrated through recordkeeping. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.2.3 dated 08/11/2022]

4.8.6 Compliance with the opacity limitations of Condition 2.2 shall be demonstrated recordkeeping of COMS data. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.2.2 dated 08/11/2022]

4.8.6 Compliance with Condition 3.3 shall be demonstrated by recordkeeping. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart D § 60.45b(j) dated 01/28/2009, 7 DE Admin Code 1108 Section 2.3.1 dated 07/11/2003, and 7 DE Admin. Code 1130 Section 6.1.3.2.2 dated 08/11/2022]

4.8.7 Compliance with Condition 3.4 and 3.5 shall be demonstrated by recordkeeping. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11214(b) dated 09/14/2016 and 7 DE Admin. Code 1130 Section 6.1.3.2.2 dated 08/11/2022]

4.8.8 Compliance with the operational limitation of Condition 3.6 shall be demonstrated through recordkeeping. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.2.2 dated 08/11/2022]

4.8.9 Compliance with the operational limitation of Conditions 3.7 and 3.8 shall be demonstrated through recordkeeping. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.2.2 dated 08/11/2022]

4.9 Upon written request of the Department, the owner or operator shall, at his expense, sample the emissions of, or fuel used by, an air contaminant emission source, maintain records and submit reports to the Department on the results of such sampling. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1117 Section 2.2 dated 07/17/1984]

## **5. Record Keeping Requirements**

5.1 The owner or operator shall maintain, at a minimum, all of the information required by this permit for a minimum of five (5) years from such information's date of record. **[This condition was modified from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1120 Section 1.2.2 dated 12/07/1988 and 7 DE Admin. Code 1130 Section 6.1.3.2.2 dated 12/11/00]

5.1.1 The owner or operator shall keep each record on-site or accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. Records may be kept off site for the remaining 3 years. **[This condition was modified from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(d) dated 09/14/2016]

5.2 The rolling twelve (12) month total emissions shall be calculated and recorded each month in a log for each of the following pollutants.

5.2.1 Nitrogen Oxides (NO<sub>x</sub>)

5.2.2 Sulfur Oxides (SO<sub>x</sub>)

5.2.3 Carbon Monoxide (CO)

5.2.4 Volatile Organic Compounds (VOC)

5.2.5 Particulate Matter (PM)

5.3 The owner or operator shall maintain records of the following information each steam generating unit operating day: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.49b(g) dated 02/16/2012 and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]

5.3.1 Calendar date;

5.3.2 The average NO<sub>x</sub> emission rates (expressed as NO<sub>2</sub>) measured in lb/MMBtu heat input;

5.3.3 The 30-day average NO<sub>x</sub> emission rates in lb/MMBtu heat input calculated at the end of each steam generating unit operating day from the measured hourly

nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;

- 5.3.4 Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emissions standards under Condition 2.1.1.4, with the reasons for such excess emissions as well as a description of corrective actions taken;
  - 5.3.5 Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
  - 5.3.6 Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
  - 5.3.7 Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
  - 5.3.8 Identification of the times when the pollutant concentration exceeded full span of the CEMS;
  - 5.3.9 Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with appendix B, Performance Specification 2 or 3 of 40 CFR Part 60; and
  - 5.3.10 Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of 40 CFR Part 60.
- 5.4 For No. 2 fuel oil or diesel fuel, the owner or operator shall obtain and maintain supplier certificates for each fuel shipment to the boiler. Such certifications shall indicate: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.47b(f) dated 02/27/2014, § 60.49b(r) dated 02/16/2012, and 7 DE Admin. Code Section 1108 Section 5.1.1 dated 07/11/2013]
- 5.4.1 The name, address and telephone number of the fuel supplier. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code Section 1108 Section 5.1.1 dated 07/11/2013]
  - 5.4.2 The name address and telephone number of the Company, and the address where the fuel oil is delivered. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code Section 1108 Section 5.1.2 dated 07/11/2013]
  - 5.4.3 The volume of fuel being delivered, and the date of sale or delivery. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code Section 1108 Section 5.1.3 dated 07/11/2013]
  - 5.4.4 The type of fuel being delivered. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code Section 1108 Section 5.1.4 dated 07/11/2013]
  - 5.4.5 The sulfur content of the fuel being delivered, as follows:

- 5.4.5.1 The actual sulfur content in ppm or percent (%) by weight, or, **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code Section 1108 Section 5.1.4.1 dated 07/11/2013]
- 5.4.5.2 A statement that certifies the sulfur content of the shipment is equal to or below the limit in Condition 3.3. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code Section 1108 Section 5.1.4.2 dated 07/11/2013]
- 5.4.6 The sulfur testing method used, meeting the following: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code Section 1108 Section 4.2 dated 07/11/2013]
- 5.4.6.1 The standard ASTM method D2622-10 "Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry," or **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code Section 1108 Section 4.2.1 dated 07/11/2013]
- 5.4.6.2 Any alternative method specified in Title 40, Code of Federal Regulations, Part 80, Section 580 (July 2012 edition), or **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code Section 1108 Section 4.2.2 dated 07/11/2013]
- 5.4.6.3 Any alternative method approved by the Department and the EPA. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code Section 1108 Section 4.2.3 dated 07/11/2013]
- 5.5 For all other fuels, the owner or operator shall obtain and maintain receipts (such as current valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify a sulfur content that will emit less than 0.32 lb/MMBtu of SO<sub>2</sub>. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.42b(k)(2) dated 01/20/2011, § 60.45b(j) dated 01/28/2009, § 60.47b(f) dated 02/27/2014, § 60.49b(r) dated 02/16/2012 and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]
- 5.6 The owner or operator shall maintain records of the following:
- 5.6.1 A copy of each notification and report that was submitted to comply with 40 CFR Part 63 Subpart JJJJJJ, as well as all documentation supporting any Initial Notification or Compliance Status that has been submitted. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJJ § 63.11225(c)(1) dated 09/14/2016]
- 5.6.2 Copies of all records used to show conformance with the work practices, emission reduction measures and management practices required by 40 CFR Part 63 Subpart JJJJJJ sections § 63.11214 and § 63.11223. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJJ § 63.11225(c)(2) dated 09/14/2016]
- 5.6.2.1 The records must identify the boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned. **[This condition will be transferred to Permit: AQM-**

**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 37

**003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(c)(2)(i) dated 09/14/2016]

5.6.2.2 Records of monthly fuel use by the boiler, including the type(s) of fuel and amount(s) used. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11222(a)(2) dated 09/14/2016 and § 63.11225(c)(2)(iv) dated 09/14/2016]

- 5.7 The owner or operator shall maintain records of all test data. This data includes, but may not be limited to: [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(c)(6) dated 09/14/2016 and 7 DE Admin. Code 1130 Section 6.1.3.2 dated 12/11/00]
- 5.7.1 The date, place and time of sampling measurements; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(c)(6)(i) dated 09/14/2016 and 7 DE Admin. Code 1130 Section 6.1.3.2.1.1 dated 12/11/00]
- 5.7.2 The date(s) analyses were performed; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(c)(6)(i) dated 09/14/2016 and 7 DE Admin. Code 1130 Section 6.1.3.2.1.2 dated 12/11/00]
- 5.7.3 The Company, entity, or person that performed the analyses; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(c)(6)(ii) dated 09/14/2016 and 7 DE Admin. Code 1130 Section 6.1.3.2.1.3 dated 12/11/00]
- 5.7.4 The analytical techniques or methods used; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(c)(6)(iii) dated 09/14/2016 and 7 DE Admin. Code 1130 Section 6.1.3.2.1.4 dated 12/11/00]
- 5.7.5 The results of such analyses; and **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(c)(6)(v) dated 09/14/2016 and 7 DE Admin. Code 1130 Section 6.1.3.2.1.5 dated 12/11/00]
- 5.7.6 The operating conditions existing at the time of sampling or measurement. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(c)(6)(iv) dated 09/14/2016 and 7 DE Admin. Code 1130 Section 6.1.3.2.1.6 dated 12/11/00]
- 5.7.7 The maintenance or corrective action taken (if applicable). **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(c)(6)(vi) dated 09/14/2016]
- 5.8 The owner or operator shall maintain records of the following:
- 5.8.1 The occurrence and duration of any startup, shutdown, or malfunction in the operation of the boiler, any malfunction of the air pollution control equipment, or any periods during which a continuous monitoring system or monitoring device is inoperative. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(c)(4) dated 09/14/2016 and 7 DE Admin. Code 1120 Section 1.2.3 dated 12/07/1988]

**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 38

5.8.1.1 The records of any actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(c)(5) dated 09/14/2016]

5.8.2 The amounts of each fuel combusted each day; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.49b(d)(1) dated 02/16/2012 and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]

5.8.3 Calculations of the annual capacity factor individually for each fuel with the annual capacity factor being determined at the end of each calendar month on a twelve (12) month rolling average basis. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.49b(d)(1) dated 02/16/2012 and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]

5.8.4 Landfill gas data provided to the facility from the landfill gas supplier. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.1 08/11/22]

**6. Reporting Requirements**

6.1 Emission in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department:

6.1.1 Immediately upon discovery and after activating the appropriate site emergency plan to the Department's 24-hour complaint line (1-800-662-8802) any deviation that poses an imminent and substantial danger to public health, safety, or the environment. **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.3.3.2 dated 12/11/00]

6.1.2 Immediately upon discovery by calling the Environmental Emergency Notification and Complaint number, (800) 662-8802. (State Enforceable Only) **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.3.3.3 dated 12/11/00]

6.2 Discharges to the atmosphere in excess of any quantity specified 7 DE Admin. Code 1203 **"Reporting of a Discharge of a Pollutant or an Air Contaminant"** shall be reported, immediately upon discovery and after activating the appropriate site emergency plan, either in person or to the Department's 24-hour complaint line (1-800-662-8802). Discharges in compliance with this permit and excess emissions previously reported under Condition 6.1 of this permit are exempt from this reporting requirement. **[This condition was modified from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.1.3.3.3.5 dated 12/11/00 and 7 Del. C. Chapter 60, Section 6028]

6.3 In addition to complying with Condition 6.1 and 6.2 of this permit, any reporting required by 7 DE Admin. Code 1203 **"Reporting of a Discharge of a Pollutant or an Air Contaminant"** and any other reporting requirements mandated by the State of Delaware, the owner or operator shall for each occurrence of excess emissions, within thirty (30) calendar days of becoming aware of such occurrence, supply the Department in writing with the following information: **[This condition was modified from and will be**

**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 39

**transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1112 Section 7.3 dated 11/24/1993]

- 6.3.1 The name and location of the facility;
  - 6.3.2 The subject source(s) that caused the excess emissions;
  - 6.3.3 The time and date of first observation of the excess emissions;
  - 6.3.4 The cause and expected duration of the excess emissions;
  - 6.3.5 For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and
  - 6.3.6 The proposed corrective actions and schedule to correct the conditions causing the excess emissions.
- 6.4 The owner or operator shall submit to the Department and EPA, except those required by Conditions 4.1 and 4.2, the following notifications:
- 6.4.1 A notification of intention to construct a new affected source. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart § 63.9b(b)(5)(i) dated 11/19/2020]
  - 6.4.2 A notification of the anticipated date of initial startup of an applicable source not more than 60 days nor less than 30 days prior to such date. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code Section 1120 Section 1.2.1.1 dated 12/07/1988]
  - 6.4.2 A notification of the actual date of initial startup of an applicable source within 15 days after such date. This notification shall include: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart A § 60.7(a)(3) dated 02/12/1999, 40 CFR Part 60 Subpart Db § 60.49b(a) dated 02/16/2012, 40 CFR Part 63 Subpart JJJJJ § 63.11225(a)(2) dated 09/14/2016, 7 DE Admin. Code Section 1120 Section 1.2.1.2 dated 12/07/1988, and Section 26.0 dated 12/07/1988]
    - 6.4.2.1 The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.49b(a)(1) dated 02/16/2012, and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]
    - 6.4.2.2 The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.49b(a)(1) dated 02/16/2012, and 7 DE Admin Code 1120 Section 26.0 dated 12/07/1988]
  - 6.4.3 A notification of any physical or operational change to an existing facility, which may increase the emission rate of any air pollutant to which a standard applies,

unless that change is specifically exempted under an applicable provision. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code Section 1120 Section 1.2.1.4 dated 12/07/1988]

- 6.4.4 A Notification of Intent to conduct a performance stack test at least 60 days before the performance stack test is scheduled to begin. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(a)(3) dated 09/14/2016]
- 6.4.5 The Notification of Performance Evaluation required by Condition 4.4.1 and Condition 4.7.5, providing the date upon which demonstration of the continuous monitoring system performance evaluation is scheduled to begin. Notification shall be postmarked not less than 60 days prior to such date. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.9(g)(1) dated 11/19/2020 and 7 DE Admin. Code Section 1120 Section 1.2.1.5 dated 12/07/1988]
- 6.4.6 A Notification of Compliance Status shall be submitted within 60 days of completing the performance stack test. The Notification of Compliance Status must be submitted as follows:
- 6.4.6.1 The Notification of Compliance Status shall contain the following:
- 6.4.6.1.1 The methods that were used to determine compliance; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.9(h)(2)(i)(A) dated 11/19/2020]
- 6.4.6.1.2 The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods; **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.9(h)(2)(i)(C) dated 11/19/2020]
- 6.4.6.1.3 A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.9(h)(2)(i)(G) dated 11/19/2020]
- 6.4.6.2 The Notification of Compliance Status shall be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). If the reporting form for 40 CFR Part 63 Subpart JJJJJ reporting is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status shall be submitted to the following address: **[This condition will be transferred to Permit: AQM-**



**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 41

**003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart A § 63.9(h)(2)(i) and § 63.9(h)(2)(ii) dated 11/19/2020]

Administrator  
Environmental Protection Agency  
Region III  
1600 JFK Blvd.  
Philadelphia, PA 19103-2029

- 6.5 The owner or operator shall develop and submit a site-specific fuel analysis plan to the Department for review and approval no later than 60 days before the date the owner or operator intends to demonstrate compliance. The fuel analysis plan shall include at a minimum the following information: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.49b(r)(2) dated 02/16/2012 and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]
- 6.5.1 The potential sulfur emissions rate of the representative fuel mixture in ng/J heat input;
- 6.5.2 The method used to determine the potential sulfur emissions rate of each constituent of the mixture. For distillate oil and natural gas a fuel receipt or tariff sheet is acceptable;
- 6.5.3 The ratio of different fuels in the mixture; and
- 6.5.4 The owner or operator can petition the Administrator to approve monthly or quarterly sampling in place of weekly sampling."
- 6.6 The owner or operator shall submit a written excess emissions report every quarter within thirty (30) days of the end of each calendar quarter containing the following information: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.49b(h) dated 02/16/2012 and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]
- 6.6.1 The magnitude of excess emissions, any conversion factor or factors used, and the date and time of commencement and completion of each time period of excess emissions. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code Section 1120 Section 1.2.3.1 dated 12/07/1988]
- 6.6.2 Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the applicable source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code Section 1120 Section 1.2.3.2 dated 12/07/1988]
- 6.7 The owner or operator shall submit a report every six (6) months within thirty (30) days of the end of the reporting period containing the following information: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.49b(w) dated 02/16/2012 and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]

**Proposed Permit: APC-2023/0052-CONSTRUCTION (NSPS) (MNSR) (PTE) (GACT) (FE)**

**Croda Inc. – Atlas Point**

**110 MMBtu Boiler (Boiler 6)**

January 3, 2024

Page 42

- 6.7.1 The record keeping required by 5.3 to include: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.49b(i) and § 60.49b(g) dated 02/16/2012 and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]
- 6.7.1.1 Calendar date;
- 6.7.1.2 The average NO<sub>x</sub> emission rates (expressed as NO<sub>2</sub>) measured in lb/MMBtu heat input;
- 6.7.1.3 The 30-day average NO<sub>x</sub> emission rates in lb/MMBtu heat input calculated at the end of each steam generating unit operating day from the measured hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
- 6.7.1.4 Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emissions standards under Condition 2.1.1.4, with the reasons for such excess emissions as well as a description of corrective actions taken;
- 6.7.1.5 Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
- 6.7.1.6 Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
- 6.7.1.7 Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
- 6.7.1.8 Identification of the times when the pollutant concentration exceeded full span of the CEMS;
- 6.7.1.9 Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with appendix B, Performance Specification 2 or 3 of 40 CFR Part 60; and
- 6.7.1.10 Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of 40 CFR Part 60.
- 6.7.2 A certification that only very low sulfur oil, natural gas, and other fuels containing a sulfur content that will emit less than 0.32 lb/MMBtu of SO<sub>2</sub> were fired in the boiler. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 60 Subpart Db § 60.49b(k)(2) and § 60.49b(r)(1) dated 02/16/2012, and 7 DE Admin. Code 1120 Section 26.0 dated 12/07/1988]
- 6.8 The owner or operator shall submit by March 15 of each year an annual compliance certification report for the previous calendar year containing the following information: **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11225(b) dated 09/14/2016]

6.8.1 Company name and address.

6.8.2 Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart. The notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

6.8.2.1 "This facility complies with the requirements in 40 CFR Part 60 Subpart JJJJJ § 63.11223 to conduct a biennial tune-up of the boiler."

6.8.2.2 "This facility complies with the requirement in 40 CFR Part 60 Subpart JJJJJ § 63.11214(d) and § 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

6.8.3 If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken. **[This condition will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 40 CFR Part 63 Subpart JJJJJ § 63.11222(b) dated 09/14/2016]

6.8.4 The total fuel use by the boiler units of measure.

6.9 Each document submitted to the Department/EPA pursuant to this permit shall be certified by a Responsible Official as to truth, accuracy, and completeness. Such certification shall be signed by a Responsible Official and shall contain the language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete." **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 5.6 dated 11/15/93 and 6.3.1 dated 08/11/2022]

6.10 Each document submitted to the Department/EPA pursuant to this permit, except those required by Conditions 4.1 and 4.2, shall be sent to the following addresses: **[This condition was modified from and will be transferred to Permit: AQM-003/00058-Renewal (03) Revision (07)]**

State of Delaware – DNREC  
Division of Air Quality  
State Street Commons  
100 W. Water Street, Suite 6A  
Dover, DE 19904  
ATTN: Division Director  
No. of Originals: 1

United States Environmental Protection Agency  
Region III, Enforcement & Compliance Assurance Division

Air, RCRA and Toxics Branch (3ED21)  
Four Penn Center  
1600 John F. Kennedy Boulevard  
Philadelphia, Pennsylvania 19103-2852  
No. of Originals: **1**

## **7. Compliance Certification**

- 7.1 Compliance with the terms and conditions of this permit shall be certified to the Department not later than the first day of February of each year unless the terms and conditions require Compliance Certifications to be submitted more frequently. Such certifications shall cover the previous calendar year and shall be submitted on Form AQM-1001BB. The Compliance Certification shall include the following information: **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.3.5.3.1 dated 08/11/2022]
- 7.1.1 The identification of each term or condition of the permit that is the basis of the certification. **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.3.5.3.1 dated 08/11/2022]
- 7.1.2 The Company's current compliance status, as shown by monitoring data and other information reasonably available to the Company. **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.3.5.3.2 dated 08/11/2022]
- 7.1.3 Such certification shall indicate whether compliance was continuous or intermittent during the covered period. **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.3.5.3.3 dated 08/11/2022]
- 7.1.4 The method(s) used for determining the compliance status of the Company, currently and over the reporting period as required by the monitoring, record keeping, and reporting required under Conditions 4, 5, and 6. **[This condition was modified from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.3.5.3.4 dated 08/11/2022]
- 7.1.5 Such other facts that the Department may require to determine the compliance status of the source. [This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)] [Reference 7 DE Admin. Code 1130 Section 6.3.5.3.5 dated 08/11/2022]
- 7.2 Each compliance certification shall be submitted to the Department and EPA and shall be certified in accordance with Condition 6.9 of this permit. **[This condition was modified from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 7 DE Admin. Code 1130 Section 6.3.5.4 dated 08/11/2022]
- 7.3 Any additional information possessed by the Company that demonstrates noncompliance with any applicable requirement must also be used as the basis for Compliance Certifications. **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** [Reference 62 FR 8314 dated 2/24/97]

**8. Administrative Conditions**

- 8.1 The Company shall have available at the facility at all times a copy of this permit and shall provide a copy of this permit to the Department upon request. **[This condition was taken from Permit: AQM-003/00058-Renewal (03) Revision (07)]** *[Reference 7 DE Admin. Code 1102 Section 8.0 dated 06/01/1997]*
- 8.2 Failure to comply with the provisions of this permit may be grounds for suspension or revocation. *[Reference 7 DE Admin. Code 1102 Section 6.0 dated 06/11/2006]*

Sincerely,

Amy S. Mann, P.E.  
Program Administrator  
Engineering & Compliance Section

ASM:OIO:ESR  
F:\EngAndCompliance\ESR\esr24005.docx

pc: Dover Title V File  
Olayiwola I. Okesola, P.E.  
Eric S. Rowland