



July 15, 2024

VIA EMAIL ONLY

Mr. Mike Hampton
Manager, Environmental Compliance
Continental Resources,
20 N. Broadway
PO Box 269000
Oklahoma City, OK 73126
mike.hampton@clr.com

Re: Notice of Violation to Continental Resources CAA-08-2024-0006

Dear Mr. Hampton:

The U.S. Environmental Protection Agency (EPA) is issuing Continental Resources, Inc. the enclosed Notice of Violation and offering an opportunity to confer regarding alleged violations of the Clean Air Act and its implementing regulations.

Specifically, the EPA alleges that Continental has violated or is violating at oil and gas production facilities in the State of North Dakota:

1. The Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced after August 23, 2011, and on or Before September 18, 2015, 40 C.F.R. Part 60, Subpart OOOO; and
2. North Dakota Administrative Code, Title 33.1, Article 15, Chapter 7, Control of Organic Compounds, as incorporated into North Dakota's EPA-approved State Implementation Plan.

Section 113(a)(3) of the Clean Air Act provides that whenever, based on information available to the Administrator of the EPA, the Administrator finds that any person has violated, or is in violation of an applicable implementation plan or requirement of the Act, the Administrator may issue an administrative compliance order, issue an administrative

Re: Notice of Violation to Continental Resources

penalty order, or bring a civil judicial action. 42 U.S.C. § 7413(a)(3). This NOV also serves as notice to the State of North Dakota under Section 113(a)(1). 42 U.S.C. § 7413(a)(1).

We are offering Continental an opportunity to confer with the EPA about the violations alleged in the NOV. The conference will provide an opportunity to present information on the specific alleged violations and any efforts that Continental has taken to comply or prevent future noncompliance.

To reach a timely conclusion of this matter, the EPA would like to hold an initial meeting on or before August 30, 2024. To schedule this meeting, please have your counsel call or email Kai Hill, Assistant Regional Counsel for EPA Region 8, at (303) 312-6856 or hill.kai@epa.gov within 15 calendar days following receipt of this letter.

Sincerely,

Suzanne J. Bohan, Director
Enforcement and Compliance Assurance Division

Enclosure

cc (w/Encl.):

James L. Semerad, Director, Division of Air Quality, North Dakota Department of Environmental Quality, jsemerad@nd.gov

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

IN THE MATTER OF:)	NOTICE OF VIOLATION
)	
Continental Resources, Inc.)	EPA Docket No. CAA-08-2024-0006
20 N. Broadway)	
Oklahoma City, OK 73102.)	
)	Proceedings Pursuant to
)	the Clean Air Act,
)	42 U.S.C. §§ 7401-7671q,
)	and North Dakota Code, Title 33.1,
)	Article 15, Chapter 7

NOTICE OF VIOLATION

The U.S. Environmental Protection Agency (EPA) alleges that Continental Resources, Inc. (Continental) has violated the Clean Air Act (the Act) at oil and natural gas production operations located in the Bakken Basin. Specifically, the EPA alleges Continental has violated Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for Which Construction, Modification, or Reconstruction Commenced After August 23, 2011, and on or before September 18, 2015, 40 C.F.R. part 60, subpart OOOO (NSPS OOOO). The EPA also alleges violations of North Dakota Administrative Code (NDAC), Title 33.1, Article 15, Chapter 7, Control of Organic Compounds, as incorporated into North Dakota’s EPA-approved State Implementation Plan (SIP).

I. STATUTORY AND REGULATORY BACKGROUND

1. The Clean Air Act’s purpose is “to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.” 42 U.S.C. § 7401(b)(1).
2. Section 108 of the Act, 42 U.S.C. § 7408, directs the EPA to identify pollutants that “may reasonably be anticipated to endanger public health or welfare” and to issue air quality criteria based on the “latest scientific knowledge” about the effects of the pollutants on public health and the environment. These pollutants are known as “criteria pollutants.”

3. Section 109 of the Act, 42 U.S.C. § 7409, requires the EPA to establish national ambient air quality standards (NAAQS) for criteria pollutants. The primary standard must be set at a level “requisite to protect the public health” with an adequate margin of safety, and the secondary standard is intended to protect the “public welfare.”
4. Ground-level ozone is one of six criteria pollutants for which the EPA has promulgated national standards, due to its adverse effects on human health and the environment. Short-term exposures (1 to 3 hours) to ground-level ozone can cause acute health effects observed even at low concentrations, including temporary pulmonary inflammation. Long-term exposure (months to years) may cause permanent damage to lung tissue. Children and adults who are active outdoors are particularly susceptible to the adverse effects of exposure to ozone. *See* 73 Fed. Reg. 16,436 (Mar. 27, 2008).
5. Ozone is not emitted directly from sources of air pollution. Ozone is a photochemical oxidant, formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_x) react in the presence of sunlight. NO_x and VOCs are known as “ozone precursors.” Sources that emit ozone precursors are regulated to reduce ground-level ozone. *See* 62 Fed. Reg. 38,856 (July 18, 1997).
6. Section 110(a)(2)(C) of the Act requires that every state implementation plan for national primary and secondary ambient air quality standards include a program to regulate the construction and modification of stationary sources; this includes a permitting program as required by parts C and D of Title I of the Act. *See* 42 U.S.C. § 7410(a)(2)(C).
7. Section 111(b) of the Act authorizes the Administrator of the EPA to promulgate standards of performance applicable to “new sources” within categories of sources that cause “air pollution which may reasonably be anticipated to endanger public health or welfare.” 42 U.S.C. § 7411(b).
8. A “stationary source” is a building, structure, facility, or installation that emits or may emit any air pollutant. 42 U.S.C. § 7411(a)(3).

9. In 1979, the EPA listed “Crude Oil and Natural Gas Production” as a source category that contributes significantly to air pollution and for which standards of performance would be established. 44 Fed. Reg. 49,222 (Aug. 21, 1979).
10. It is unlawful for owners and operators of any new source to operate in violation of applicable standards of performance after the standards have gone into effect. 42 U.S.C. § 7411(e).

A. New Source Performance Standards

11. A “new source” is any stationary source, the construction or modification of which is commenced after the promulgation of the standards of performance that will apply to such source. 42 U.S.C. § 7411(a)(2).

1. C.F.R. Part 60, Subpart OOOO (NSPS OOOO)

12. In 2012, the EPA promulgated “Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution” under section 111 of the Clean Air Act. 77 Fed. Reg. 49,490, 49,542 (Aug. 16, 2012). These standards are set forth in 40 C.F.R part 60, subpart OOOO, which includes 40 C.F.R. §§ 60.5360–5430 & Tables 1-3.
13. Each of these standards is a “standard of performance” within the meaning of section 111(a)(1) of the Clean Air Act, 42 U.S.C. § 7411(a)(1), or a “design, equipment, work practice, or operational standard, or combination thereof” under section 111(h) of the Clean Air Act, 42 U.S.C. § 7411(h).
14. NSPS OOOO applies to “affected facilities” for which owners or operators commence construction, modification or reconstruction after August 23, 2011, and on or before September 18, 2015. 40 C.F.R. § 60.5365.
15. A “storage vessel affected facility” under NSPS OOOO includes a single storage vessel located in the natural gas production segment that has the potential for VOC emissions equal to or greater than 6 tons per year, as determined according to 40 C.F.R. § 60.5365(e).
16. NSPS OOOO requires “[a]t all times, including periods of startup, shutdown, and malfunction, owners and operators shall maintain and operate any affected facility

including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.” 40 C.F.R. § 60.5370(b).

17. NSPS OOOO requires storage vessel affected facilities that utilize a control device to be equipped with a cover that meets the requirements of 40 C.F.R. § 60.5411(b) and is connected through a closed vent system that meets the requirements of § 60.5411(c), and emissions must be routed to a control device that meets the conditions specified in § 60.5412(c) and (d). 40 C.F.R. § 60.5395(e)(1).
18. Owners and operators must comply with the following requirements for covers on storage vessel affected facilities under NSPS OOOO:
 - a. The cover and all openings on the cover (e.g., access hatches and pressure relief valves) shall form a continuous impermeable barrier over the entire surface area of the liquid in the storage vessel. 40 C.F.R. § 60.5411(b)(1).
 - b. Each cover opening must be secured in a closed, sealed position whenever material is in the unit, except during those times specified in 40 C.F.R. § 60.5411(b)(2)(i)–(iv). 40 C.F.R. § 60.5411(b)(2).
 - c. Each storage vessel thief hatch must be equipped, maintained and operated with a weighted mechanism or equivalent, to ensure that the lid remains properly seated. 40 C.F.R. § 60.5411(b)(3).
19. Owners and operators must comply with the following requirements for closed vent systems associated with storage vessel affected facilities under NSPS OOOO:
 - a. Design the closed vent system to route all gases, vapors, and fumes emitted from the material in the storage vessel to a control device that meets the requirements specified in § 60.5412(c) and (d), or to a process. 40 C.F.R. § 60.5411(c)(1)
 - b. Design and operate a closed vent system with no detectable emissions, as determined using olfactory, visual and auditory inspections. 40 C.F.R. § 60.5411(c)(2).

20. Owners and operators must comply with the following requirements for control devices to reduce emissions from storage vessel affected facilities under NSPS OOOO:
- a. Install and operate a continuous burning pilot flame. 40 C.F.R. §§ 60.5412(d)(1)(ii), 60.5413(e)(2).
 - b. Operate each control device used to comply with NSPS OOOO at all times when gases, vapors, and fumes are vented from storage vessel affected facilities through the closed vent system to the control device. 40 C.F.R. § 60.5412(d)(3).
21. Each control device used to comply with the emission reduction standard in § 60.5395(d)(1) for a storage vessel affected facility must demonstrate continuous compliance with (h)(1) through (3) of 40 C.F.R. § 60.5417(h). 40 C.F.R. § 60.5415(e)(3)(ii)(B).
22. 40 C.F.R. § 60.5417(h)(3) requires that each control device must be operated following the manufacturer's written operating instructions, procedures and maintenance schedules to ensure good air pollution control practices to reduce emissions.

**B. North Dakota Air Quality Regulations for the Oil & Gas Industry—
Requirements for Organic Compounds Gas Disposal**

23. The EPA approved the State of North Dakota's Air Pollution Control Rules in its SIP. *See Approval & Promulgation of Implementation Plans; North Dakota*, 84 Fed. Reg. 1,610 (Feb. 5, 2019). The approved SIP incorporates North Dakota's requirements for flares at oil and gas facilities, as set forth in NDAC 33.1-15-07 for Control of Organic Compounds. *See 42 U.S.C. § 7413(a)(1)* (authorizing EPA enforcement of requirements and prohibitions in EPA-approved SIPs after 30-day notice to the State).
24. Under NDAC 33.1-15-07-02.1, no person may cause or permit the emission of organic compounds gases and vapors, except from an emergency vapor blowdown system or emergency relief system, unless these gases and vapors are burned by

flares, or an equally effective control device as approved by the department. Minor sources, as determined by the department and not subject to New Source Performance Standards (NSPS), may be granted exemptions to this subsection. NDAC 33.1-15-07-02.1.

25. Each flare required under this section must be equipped and operated with an automatic igniter or a continuous burning pilot. NDAC 33.1-15-07-02.3.
26. "Emission" means a release of air contaminants into the ambient air. NDAC 33.1-15-01-04.9.
27. "Person" means any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this state, any other state or political subdivision or agency thereof and any legal successor, representative agent, or agency of the foregoing. NDAC 33.1-15-01-04.29.

II. FACTUAL BACKGROUND & FINDINGS OF VIOLATION

A. Factual Background

28. Continental is a privately held corporation incorporated in the State of Oklahoma and at all relevant times to this NOV is doing business in the State of North Dakota.
29. Continental is a "person" within the meaning of Section 302(e) of the Clean Air Act, 42 U.S.C. § 7602(e), and within the meaning of North Dakota Administrative Code 33.1-15-01-04.29.
30. Continental owns and operates the oil and natural gas facilities in Table 1.
31. As a person operating in the State of North Dakota, Continental is subject to the Requirements for Organic Compounds Gas Disposal under NDAC 33.1-15-07-02, at each of the facilities in Table 1.
32. Oil and water produced from the facilities in Table 1 are stored in produced oil and produced water storage tanks. Produced oil and produced water storage tanks are kept at or near atmospheric pressure.
33. When pressurized oil is transferred from higher-pressure separators or heater treaters to lower-pressure atmospheric storage tanks, some of the hydrocarbons in

the oil, including VOC and hazardous air pollutants, vaporize in a process known as “flashing.” After flashing occurs, the oil continues to emit vapors due to liquid level changes and temperature fluctuations (commonly known “working,” “standing,” or “breathing” losses).

- 34. Vapors from storage tanks are captured and controlled through a series of pipes or vent lines, often referred to as a closed vent system or CVS, that route vapors to a combustion device.
- 35. Continental provided the information in Table 1 in registration and other documents to the North Dakota Department of Environmental Quality (NDDEQ).

Table 1

Site Name	Associated NDIC Well Numbers	Site First Production Date	Site Post-Control VOC from Tanks (TPY)
Chicago/Syracuse 3-4 Eco Pad	23050, 23051, 23048, 23049	9/30/2012	61.49
Miramar 2+3 Dual Pad	28750, 28751	2/17/2015	6.000

- 36. In October 2023, EPA’s contractor, Toeroek Associates, Inc. (Toeroek) and ChampionX Emissions Technologies Group (ChampionX) performed aerial monitoring surveys of oil and gas facility operations in North Dakota. The aerial surveys were conducted using a helicopter operating at approximately 250 feet above ground level and an optical gas imaging (OGI) camera.
- 37. On October 22, 2023, and October 28, 2023, Toeroek/Champion X observed hydrocarbon emissions from unlit flares at the Continental facilities in Table 1.
- 38. On November 15, 2023, after reviewing the information provided by Toeroek/Champion X, EPA contacted Continental representatives to inform them of

the unlit flares at the facilities in Table 1, which were identified in the aerial survey on October 22, 2023, and October 28, 2023.

39. Based on the first production dates for the sites listed in Table 1, information provided by Continental to NDDEQ in registration and other documents, and well production data reported by Continental to the North Dakota Oil and Gas Division, EPA believes that storage vessels and associated emissions control equipment at the sites in Table 1 are subject to requirements for storage vessel affected facilities in the New Source Performance Standards, as shown in Table 2.

Table 2

Site Name	NSPS to which Site is Subject
Chicago/Syracuse 3-4 Eco Pad	0000
Miramar 2+3 Dual Pad	0000

B. Alleged Violations

1. NSPS 0000

40. Based on aerial survey findings at the NSPS 0000-subject facilities in Table 2, above, Continental violated requirements under 40 C.F.R. § 60.5370(b) to maintain and operate at all times, including periods of startup, shutdown, and malfunction, tank affected facilities and the associated flare air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions, because the flare was unlit and venting uncontrolled VOC emissions to the atmosphere.
41. Based on aerial survey findings at the NSPS 0000-subject facilities in Table 2, Continental violated requirements under 40 C.F.R. § 60.5395(e)(1) and 40 C.F.R. § 60.5411(c) to operate storage vessel closed vent system(s) with no detectable emissions, as determined using olfactory, visual, and auditory inspections, because the flare was unlit and venting uncontrolled VOC emissions in to the atmosphere.

42. Based on aerial survey findings at the NSPS OOOO-subject facilities in Table 2, Continental violated requirements under 40 C.F.R. §§ 60.5411(b) and 60.5411(c) to equip storage vessel affected facilities with a cover that meets the requirements of 40 C.F.R. § 60.5411(b), and is connected through a closed vent system that meets the requirements of 60.5411(c), and that routes emissions to a control device that meets the conditions specified in 60.5412(c) and(d), because the flare was unlit and venting uncontrolled VOC emissions into the atmosphere.
43. Based on aerial survey findings at the NSPS OOOO-subject facilities in Table 2, Continental violated requirements under 40 C.F.R. § 60.5412(d)(3) to operate each flare control device at all times when gases, vapors, and fumes are vented from the storage vessel affected facility through the closed vent system to the control device, because the flare was unlit and venting uncontrolled emissions into the atmosphere.
44. Based on aerial survey findings at the NSPS OOOO-subject facilities in Table 2, Continental violated 40 C.F.R. § 60.5417(h) to demonstrate continuous compliance with (h)(1) through (3) of 40 C.F.R. § 60.5417(h) for each control device used to comply with the emission reduction standard in § 60.5395(d)(1) for a storage vessel affected facility. Specifically, Continental failed to operate the control devices following the manufacturer's written operating instructions, procedures, and maintenance schedule to ensure good air pollution control practices to minimize emissions because the flare was unlit and venting uncontrolled VOC emissions into the atmosphere.
45. Each of the violations alleged in Paragraphs 40—44 are violations of section 111 of the Clean Air Act, 42 U.S.C. § 7411(e).

**2. North Dakota Air Quality Regulations for the Oil & Gas
Industry– Requirements for Organic Compounds Gas Disposal**

46. Based on aerial survey findings at the facilities in Table 1, Continental violated requirements under NDAC 33.1-15-07-02.1 by causing or permitting the emission of organic compounds gases and vapors which were not burned by flares or an equally

effective control device approved by the North Dakota Department of Environmental Quality. NDAC 33.1-15-07-02.1.

47. Based on aerial survey findings at the facilities in Table 1, Continental violated requirements under 33.1-15-07-02.3 to equip and operate each flare with an automatic igniter or a continuous burning pilot. NDAC 33.1-15-07-02.3.

III. ENFORCEMENT AUTHORITY

48. Section 113(a) of the Act authorizes the Administrator of the EPA, after notification is provided, to issue an order requiring any person who has violated or violates any requirement or prohibition of an applicable State implementation plan or permit to:(a) issue an order requiring such person to comply with the requirements or prohibitions of such plan or permit; (b) issue an administrative order to comply with Section 113(d) of the Act; or (c) bring a civil action in accordance with Section 113(b) of the Act. *See* 42 U.S.C. § 7413(a)(1).
49. Section 113(a)(3) of the Act, 42 U.S.C. § 7413(a)(3), provides that whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated, or is in violation of, any requirement or prohibition of the Clean Air Act, the Administrator may issue an order requiring such person comply with the requirements or prohibition of the Act, issue an administrative penalty order in accordance with section 113(d) of the Act, or bring a civil action in accordance with section 113(b) of the Act for injunctive relief or civil penalties.
50. The issuance of this Notice of Violation does not in any way limit or preclude the EPA from pursuing additional enforcement options concerning inspections or review referenced in this Notice of Violation. Also, this Notice of Violation does not preclude enforcement action for violations not specifically addressed in this Notice of Violation.

Date Issued: July 15, 2024

Suzanne J. Bohan, Director
Enforcement and Compliance Assurance
Division Region 8