



REGION 8

DENVER, CO 80202

Chord Energy Corporation – Various Well Pads Partial Compliance Evaluation (PCE) On-Site Clean Air Act (CAA) Inspections

Inspection Date(s): October 23-24, 2024

Inspection Report Date: December 27, 2024

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Tribal Representatives: Dwight Bruce, MHA Energy

Company Representatives: None

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Inspection Report Reviewed By: Scott Patefield, Manager, Enforcement and Compliance Assurance Division, Air and Toxics Enforcement Branch

Applicable Rules: **SCOTT PATEFIELD** Digitally signed by SCOTT PATEFIELD
Date: 2024.12.27 14:00:35 -07'00'

40 C.F.R Part 49, Subpart K – Federal Implementation Plan for Oil and Natural Gas Well Production Facilities; Fort Berthold Indian Reservation (Mandan, Hidatsa and Arikara Nation), North Dakota (Fort Berthold FIP)

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

40 C.F.R Part 60, Subpart OOOOa – Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015 (NSPS OOOOa)

Compliance Assistance

None

Enforcement History

None

Areas of Concern

1. The EPA detected hydrocarbon emissions from the storage tanks co-located with the following well:
 - Independence 16-31B
2. The EPA detected unburned hydrocarbon (UBHC) emissions from an operating utility flare at the following well pad:
 - Bullwinkle Pad 15-4D
3. The EPA detected visible emissions from operating utility flares at or co-located with the following wells or well pads:
 - MHA 3-32-29H-150-91
 - MHA 6-06-01-H-149-92
 - Independence 16-31B
 - MHA 1-06-01H-149-92
 - Skunk Creek Pad 13-3D
 - Bullwinkle Pad 15-4D
 - Buffalo Pad 10-06D

See Table 1 below for more details regarding inspected locations and Tables 2 and 3 for inspection observation details for all pads. A log of images and videos captured during the inspections is provided in Appendix A.

General Inspection Information

Unannounced well pad inspections were conducted jointly by U.S. EPA and Fort Berthold Indian Reservation (FBIR) Tribal inspectors on October 23, and 24, 2024, at multiple Chord Energy Corporation (Chord) facilities located on the Fort Berthold Indian Reservation (FBIR). The inspected facilities were previously owned and operated by Oasis Petroleum Inc. (Oasis) and began operating under the Chord Energy name on July 1, 2022 after a merger was completed between Oasis and Whiting Petroleum Corporation to form the new company, Chord Energy Corporation.

The EPA inspectors evaluated each well site listed in Table 1 using audio, visual, and olfactory (AVO) inspection methods including the use of an optical gas imaging (OGI) camera and EPA Reference Method 22. At each facility, inspectors scanned the crude and/or water storage tanks, closed vent system and flares onsite for any detectable emissions. Specifically, inspectors scanned storage tank covers and closed vent systems for hydrocarbon emissions to determine compliance with the Clean Air Act, including the Fort Berthold FIP and NSPS OOOO/a.

Each well pad inspection followed the approach below:

1. Record the entry sign of the well pad when available. Survey the entire well pad with OGI camera.
2. Record the number and type of site process equipment such as well heads, tanks, and emission control devices.
3. Record AVO indications of emissions from the storage tanks, closed vent system to the control devices and control devices.
4. Using the OGI camera, survey each process in infrared modes (auto, manual, and/or high-sensitivity modes). Record any uncontrolled emissions with the OGI camera and describe the frequency and magnitude of emissions in the field notebook.
5. Observe control devices (enclosed combustor or utility flare) for visible emissions. If there is visible emissions present, conduct Method 22 and record the observations.
6. Using another OGI camera, if available, confirm any observations of uncontrolled emissions with another inspector.
7. If there are operators present onsite, share any Areas of Concern.

Table 1 lists general inspection and well pad details for each inspected well pad. The well pad information located in Table 1 is from the North Dakota Industrial Commission (NDIC) well index located online at <https://www.dmr.nd.gov/oilgas/>.

Table 1: Inspection and Facility Details of Facilities Inspected						
Date	Arrival Time	Departure Time	Well Pad Name	API Number	Latitude	Longitude
10/23/2024	10:26	10:35	Bullet Pad 5-10E	3302502124 3302502125 3302502126 3302502127 3302502128 3302502129 3302502130 3302502131 3302502132 3302502133 3302502134 3302502135	47.739839	-102.320987
10/23/2024	11:04	11:07	Indy Infill Pad 15-32B	3302502786 3302502787	47.7619937	-102.347645
10/23/2024	11:08	11:17	MHA 3-32-29H-150-91	3302501318 3302501319 3302501320 3302501321	47.7610854	-102.344328
10/23/2024	11:20	11:23	MHA 2-32-29H-150-91	3302501562 3302501563	47.7603919	-102.356042
10/23/2024	11:24	11:35	MHA 6-06-01-H-149-92	3302502704 3302502705 3302502706 3302502707	47.7590195	-102.359782

10/23/2024	11:37	11:59	Independence 16-31B	3302501467 3302501468 3302501469 3302501470 3302501471 3302501472 3302501473 3302501474 3302501475 3302501476	47.7622	-102.36539
10/23/2024	12:02	12:18	MHA 1-06- 01H-149-92	3302501037 3302501038	47.7474564	-102.366664
10/23/2024	14:25	14:35	Skunk Creek Pad 13-3D	3302501801 3302501802 3302501803 3302501804 3302501805 3302501806 3302501807 3302501808 3302501809 3302501810	47.748104	-102.44730
10/23/2024	14:47	15:03	Bullwinkle Pad 15-4D	3302501946 3302501947 3302501948 3302501949	47.7463545	-102.45382
10/23/2024	15:04	15:08	Rocky Pad 6-90	3302501990 3302501991 3302501992 3302501993	47.7428069	-102.459872
10/23/2024	15:17	15:38	Buffalo Pad 10- 06D	3302501750 3302501751 3302501752 3302501753 3302501754 3302501755 3302501756 3302501757 3302501758 3302501759	47.7495653	-102.497995
10/24/2024	9:06	9:14	Vegas 1-1-36th	3305307795 3305308229 3305308230 3305308231 3305308232 3305308268 3305308269	47.7445846	-102.775169
10/24/2024	10:27	10:34	Tipi V 16-13X Tier 1	3305306683 3305306684	47.805122	-102.77293

				3305306685		
				3305306686		
				3305307496		
				3305307497		
				3305307498		
				3305307499		
				3305307863		

Observations and Regulatory Applicability

Fort Berthold FIP and NSPS OOOOa regulations which are potentially relevant to the Areas of Concern observed during inspections are summarized in this section.

Tables 2 and 3 at the end of this report summarize inspection observations and findings. Table 2 summarizes storage tank observations. Table 3 includes details of control devices and related observations. See Appendix A for a log of images and videos taken during the inspections.

Fort Berthold FIP Applicability

Based on drilling information reported to the NDIC well index by Oasis (Chord), the facilities listed in Table 1 were completed after the August 12, 2007, applicability date (per 40 C.F.R. § 49.4161) and are producing from the Bakken Pool (per 40 C.F.R § 49.4163(a)(1)) and are thus subject to the Fort Berthold FIP.

Closed Vent System Equipment Requirements [§ 49.4165(b)]

Per § 49.4165(b)(1), “Each closed-vent system must route all produced natural gas and natural gas emissions from production and storage operations to the natural gas sales pipeline or the control devices...”. The EPA, using an OGI camera, detected natural gas emissions from production and storage tanks at Independence 16-31B. See Area of Concern #1 above.

Utility Flare Requirements [§ 49.4165(c)]

Per § 49.4165(c)(1), “For each enclosed combustor or utility flare, the owner or operator must follow the manufacturer's written operating instructions, procedures and maintenance schedule to ensure good air pollution control practices for minimizing emissions.” The EPA noted UBHC emissions indicating poor air pollution control practices from a lit flare at the Bullwinkle Pad 15-4D well pad. See Area of Concern #2 above.

Per § 49.4165(c)(6)(vii), “The owner or operator must ensure that each enclosed combustor and utility flare is operated with no visible smoke emissions.” Per 49.4166(g)(3) and EPA Reference Method 22, the EPA noted black smoke emissions at the MHA 3-32-29H-150-91, MHA 6-06-01-H-149-92, Independence 16-31B, MHA 1-06-01H-149-92, Skunk Creek Pad 13-3D, Bullwinkle Pad 15-4D, and Buffalo Pad 10-06D well pads. See Area of Concern #3 above.

NSPS OOOO Applicability

Based on well production information reported by Oasis to the NDIC and the date of construction, reconstruction, or modification of the storage vessels, the EPA believes that

storage vessels and associated emissions control equipment at the MHA 6-06-01-H-149-92, Independence 16-31B, Skunk Creek Pad 13-3D, Bullwinkle Pad 15-4D, and Buffalo Pad 10-06D well pads are potentially subject to requirements for storage vessel affected facilities in NSPS OOOO.

Closed Vent System Equipment Requirements [§ 60.5411(c)(1)]

Per § 60.5411(c)(1), owners and operators must “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.” The EPA, using an OGI camera, observed emissions from the closed vent system at the Independence 16-31B well pad. See Area of Concern #1 above.

Control Device Requirements [§§ 60.5412(d) and 60.5417(h)]

Per § 60.5417(h)(3), “Each control device must be operated following the manufacturer’s written operating instructions, procedures and maintenance schedule to ensure good air pollution control practices for minimizing emissions.” The EPA noted UBHC emissions indicating poor air pollution control practices from a lit flare at the Bullwinkle Pad 15-4D well pad. See Area of Concern #2 above.

Per § 60.5412(d)(1)(iii), owners and operators must, “Operate the combustion control device with no visible emissions, except for periods not to exceed a total of 1 minute during any 15-minute period.” The EPA observed black smoke continuously for more than five minutes (per Method 22) at the MHA 6-06-01-H-149-92, Independence 16-31B, Skunk Creek Pad 13-3D, Bullwinkle Pad 15-4D, and Buffalo Pad 10-06D well pads. See Area of Concern #3 above.

NSPS OOOOa Applicability

Based on Oasis’ NSPS OOOOa annual reporting, the EPA believes that storage vessels and associated emissions control equipment at the MHA 1-06-01H-149-92 well pad are potentially subject to requirements for storage vessel affected facilities in NSPS OOOOa.

Control Device Requirements [§§ 60.5412a(d)]

Per § 60.5412a(d)(1)(iii), owners and operators must, “Operate the combustion control device with no visible emissions, except for periods not to exceed a total of 1 minute during any 15-minute period.” The EPA observed black smoke continuously for more than five minutes (per Method 22) at the MHA 1-06-01H-149-92 well pad. See Area of Concern #3 above.

Table 2: Inspection Details: Storage Tank Observations				
Well Pad Name	Number of Storage Tanks	AVO (Audio, visual, olfactory) Observations	Emissions Description	Media File Name
Independence 16-31B	14	None	Continuous small plume of emissions from the thief hatch.	MOV_3541.mp4 MOV_3542.mp4

Table 3: Inspection Details: Control Devices and AVO/OGI Observations									
Well Name	Number of Control Device	Control Device Type	Visible Pilot Flame (Y/N)	Active Flaring (Y/N)	Method 22 Observations	Emission Description	Media File Name	Slope to K/O Drum	Notes
MHA 3-32-29H-150-91	2	High Pressure	Y	Y	Fail	Continuous smoking from High Pressure flare located in the middle. Method 22 was performed.	None	Downward	
	1	Low Pressure	Y	Y	N				
MHA 6-06-01-H-149-92	1	Low Pressure	Y	Y	Fail	Continuous smoking from Low Pressure flare. Method 22 was performed.	None	Downward	
	1	High Pressure	Y	Y	N				
Independence 16-31B	1	Low Pressure	Y	Y	Fail	Continuous smoking from Low Pressure flare. Method 22 was performed.	None	Downward	

	1	High Pressure	Y	Y	N				
MHA 1-06-01H-149-92	1	2-prong High Pressure	Y	N	N		None	Downward	MOV_3543. Continuous emissions from top of the fuel control valve.
	1	High-low	Y	Y	Failed	Continuous smoking from High-low flare. Method 22 was performed.			
Skunk Creek Pad 13-3D	1	High-Low	Y	Y	Fail	Continuous smoking from High-Low flare. Method 22 performed.	None	Downward	
Bullwinkle Pad 15-4D	1	2-prong High Pressure	Y	N	N	UBHC emissions from a High Pressure flare with a lit pilot light that was not actively flaring.	MOV_3548.mp4 MOV_3549.mp4	Downward	
	1	Low Pressure	Y	Y	Fail	Continuous smoking from Low Pressure flare. Method 22 performed.	None		
Buffalo Pad 10-06D	1	2-prong High Pressure	Y	Y	N		None	Downward	
	1	High-Low	Y	Y	Fail	Continuous smoking of High-Low flare. Method 22 performed.			

APPENDIX A: Photograph and Video Log

Media File	Description	Well Pad Name
MOV_3541.mp4* MOV_3542.mp4*	Continuous small plume of emissions from the thief hatch.	Independence 16-31B
MOV_3543.mp4*	Continuous emissions from top of the fuel control valve.	MHA 1-06-01H-149-92
MOV_3548.mp4* MOV_3549.mp4*	UBHC emissions from a High Pressure flare with a lit pilot light that was not actively flaring.	Bullwinkle Pad 15-4D
entrysign-20241023-103324.jpg	Entry Sign	Bullet Pad 5-10E
entrysign-20241023-160734.jpg	Entry Sign	Indy Infill Pad
entrysign-20241023-160823.jpg	Entry Sign	MHA 3-32-29H-150-91
entrysign-20241023-162016.jpg	Entry Sign	MHA 2-32-29H-150-91
entrysign-20241023-162452.jpg	Entry Sign	MHA 6-06-01H-149-92
entrysign-20241023-163709.jpg	Entry Sign	Independence 16-31B
entrysign-20241023-170252.jpg	Entry Sign	MHA 1-06-01H-149-92
entrysign-20241023-192602.jpg	Entry Sign	Skunk creek pad 13-D
entrysign-20241023-200527.jpg	Entry Sign	Bullwinkle Pad 15-4D
entrysign-20241023-200527.jpg	Entry Sign	Rocky Pad 6-9D
entrysign-20241023-201739.jpg	Entry Sign	Buffalo Pad 10-06D
entrysign-20241024-140717.jpg	Entry Sign	Vegas 1-12Y pad
entrysign-20241024-153219.jpg	Entry Sign	TIPI V 16-13X Tier 1

*In addition to recording metadata through the OGI camera's system, EPA collected metadata for the media files recorded during the inspections, including the date, time, and location of the recorded media, in the Survey123 ArcGIS application at the time of the inspections. Due to a technical issue experienced with the OGI camera's metadata captured for the .mp4-type files, the Survey123 metadata was used as the primary reference for verifying inspection media file data.