Air Pollution Control Permit to Construct No. ACP-18145 v1.2 4Runner Compressor Station

Amendment No. 2

Condition I.B.4. of Permit to Construct No. ACP-18145 v1.1 is rescinded in its entirety and is replaced with the following:

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Waukesha L7044GSI Series 5 (4SRB) natural gas-fired compressor engine rated at 1,900 bhp manufactured December 2021 (NSPS JJJJ, OOOOa) (MACT ZZZZ)	C1	C1	Non-Selective Catalytic Reduction (NSCR)
Waukesha L7044GSI Series 4 (4SRB) natural gas-fired compressor engine rated at 1,680 bhp manufactured February 2012 (NSPS JJJJ, OOOOa) (MACT ZZZZ)	C2	C2	NSCR
Waukesha L7044GSI Series 4 (4SRB) natural gas-fired compressor engine rated at 1,680 bhp manufactured February 2019 (NSPS JJJJ, OOOOa) (MACT ZZZZ)	C3	C3	NSCR
Caterpillar G3606 (4SLB) natural gas-fired compressor engine rated at 1,875 bhp manufactured November 2019 (NSPS JJJJ, OOOOa) (MACT ZZZZ)	C4	C4	Catalytic Oxidation
Caterpillar G3606 (4SLB) natural gas-fired compressor engine rated at 1,875 bhp manufactured November 2019 (NSPS JJJJ, OOOOa) (MACT ZZZZ)	C5	C5	Catalytic Oxidation
Waukesha L7044GSI Series 5 (4SRB) natural gas-fired compressor engine rated at 1,900 bhp manufactured December 2021 (NSPS JJJJ, OOOOa) (MACT ZZZZ)	C6	C6	NSCR
TEG regenerator reboiler rated at $1.5 \ge 10^6$ Btu/hr	7	7	BTEX Condenser & TEG Reboiler

4. Equipment at the Facility:

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Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Triethylene glycol (TEG) dehydration unit rated at 60×10^6 scfd (MACT HH)	8	7, 9, & 10 ^A	None
Two 400-bbl produced water tanks (atmospheric)	9 & 10	9 & 10	Submerged Fill Pipes (SFP)
Compressor engine and equipment blowdowns	BD ^B	BD	None
Fugitive emissions	FUG	FUG	Leak Detection and Repair (LDAR)
Pigging ^C	-	-	-
Produced water truck loading ^C	-	-	-
Three methanol storage tanks ^C	-	-	-

^A Emissions from the TEG dehydration unit flash tank are recycled back into the process. Emissions from the regenerator are controlled by a condenser with non-condensable gasses exiting the condenser being combusted in the TEG reboiler firebox and condensed liquids routed to the produced water tanks (EU 9 and EU 10).

^B Some blowdowns do not go through the gas recycle system and are vented to atmosphere.

^C Insignificant source of emissions.

Condition II.A. of Permit to Construct No. ACP-18145 v1.1 is rescinded in its entirety and is replaced with the following:

 A. Emission Limits: Emission limits from the operation of the source unit(s) identified in Item I.B of this Permit to Construct (hereafter referred to as "permit") are as follows. Source units not listed are subject to the applicable emission limits specified in the North Dakota Air Pollution Control Rules.

Emission Unit Description	EU	ЕР	Pollutant / Parameter	Emission Limit ^{A, B}
Two Waukesha engines rated at 1,900 bhp each	C1 & C6	C1 & C6	NO _x	0.84 g/hp-hr
			СО	0.84 g/hp-hr
			VOC	0.55 g/hp-hr
			Opacity	20% ^C
Two Waukesha engines rated at 1,680 bhp each	C2 & C3	C2 & C3	NO _x	0.95 g/hp-hr
			СО	0.95 g/hp-hr
			VOC	0.64 g/hp-hr
			Opacity	20% ^C

Emission Unit Description	EU	ЕР	Pollutant / Parameter	Emission Limit ^{A, B}
Two Caterpillar engines rated at 1,875 bhp eachC4 & C5C4 & C5		NO _x	1.0 g/hp-hr or 82 ppmvd at 15% O_2	
	C4 &	СО	1.0 g/hp-hr	
	C5	C5	VOC	0.7 g/hp-hr or 60 ppmvd at 15% O_2
			Opacity	20% ^C
TEG reboiler	7	7	Opacity	20% ^C

^A Emission limits apply to each individual emission point.

^B C4 and C5's NO_x and VOC emission limits in g/hp-hr and ppmvd at 15% O₂ are from 40 CFR 60, Subpart JJJJ. The NO_x and VOC emission limits for C1, C2, C3, and C6, and the CO emission limits for C1 through C6 are more stringent than the Subpart JJJJ NO_x emission limits of 1.0 g/hp-hr and 82 ppmvd at 15% O₂, CO emission limits of 2.0 g/hp-hr and 270 ppmvd at 15% O₂, and VOC emission limits of 0.7 g/hp-hr and 60 ppmvd at 15% O₂. The permittee must also meet all applicable emission limits established by 40 CFR 63, Subpart ZZZZ.

By:

 $^{\rm C}$ 40% opacity is permissible for not more than one six-minute period per hour.

FOR THE NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY

Date:

James L. Semerad Director Division of Air Quality