

Ms. Jillian Cellini Warren District Office Michigan Department of Environment, Great Lakes and Energy (EGLE) Air Quality Division 27700 Donald Court Warren, MI 48092-2793

IN RE : Notice of Violation SRN N3391 – Washington 10 Storage Corporation Compressor Station

Dear Ms. Cellini:

On behalf of Washington 10 Storage Corporation, a subsidiary of DT Midstream, Inc. (DTM), we are hereby providing the following response to the Notice of Violation (NOV) issued on September 25, 2024 to the Washington 10 Compressor Station. The NOV cited non-compliance activities related to Permit # MI-ROP-N3391-2023 for the following stack testing activities:

- 1. EU-ENGINE2 was operated at 100% torque $\pm 10\%$ and approximately 80% speed for the three test runs. FG-ENGINES1, SC V.1 requires stack tests for NOx, CO, and VOC emissions be conducted at 100% torque $\pm 10\%$ and 100% speed $\pm 10\%$.
- EU-ENGINE4 was operated between 83.6% load (Run 3) and 88% load (Runs 1 and 2) during stack testing. MI-ROP-N3391-2023, FG-ENGINES2, SC V.2 requires stack tests for CO destruction efficiency to be conducted at 100% ±10%.

Operational Mode at Time of Stack Testing:

Due to the mild winter last year and lower demand for natural gas, Washington 10 Station ended the withdrawal season with higher than average pressures remaining in our gas storage reservoirs. This caused our gas storage injection operation to change to a "two-stage unit to unit" mode much earlier than normal. This was the case during the stack testing. "Two-stage unit to unit" mode is needed when reservoir pressures are above ~1850 PSIG – which is the maximum discharge pressure of the Cooper engines (Units 1-3). To inject to our maximum reservoir pressure of 2122 PSIG, the "two-stage unit to unit" is needed. This is a more complex gas compression operational mode whereby our Cooper Bessemer engines compress gas into an interstage header pipe. The Caterpillar (CAT) engines (Units 4-6) suction off the Cooper Bessemer discharge interstage pipe and compress to pressures above 1850 PSIG until the storage reservoirs are determined to be full. During the most recent stack testing event, CAT Units 4 and 6 were in 2-stage unit to unit mode. When the Cooper Bessemer engines are discharging into CAT suction, pressures, torques, speeds, etc. are highly dependent on each other to operate smoothly. Alarms and shutdowns can be triggered when attempting to manually manipulate speeds and torques to meet testing requirements. In the past, stack testing has always taken place early in the season during single unit (full lift) operations. As DTM typically does not switch to "two-stage unit to unit" mode until late summer, this operating scenario was unanticipated when testing was

scheduled and the challenges of testing the units at the specific operating requirements for speed and torque were not anticipated.

Finding 1:

As discussed above, at the time of the testing the site was in "two-stage unit to unit" operational mode which we believe constrained the speed of the engine. There are actions station operators can take to get the Cooper Bessemer engines as close to the 100% torque as possible, such as manipulating the load on the engine by load stepping it up manually. However, the speed of the unit is dependent upon the operating conditions at the time and the engine computer system will vary speed to keep the engine within operating parameters. There is no current manual override on these engines to increase or decrease the speed. Therefore, at the time of the testing with the operating mode of the station, the engine was tested at the maximum speed it could run that day. In addition, running the engine at a lower speed typically will result in higher emissions as compared to 100% speed. Although DTM did not test at 100% speed, the test results were still within the permitted limits. However, DTM recognizes that this was below the 100% speed $\pm 10\%$ required by the permit. DTM intends to retest this engine on October 17-18, 2024 as operating conditions are more favorable.

Finding 2:

During the stack testing for Engine #4, the engine was fully loaded based upon the operating conditions at the time of the testing. DTM recognizes that this was slightly below the minimum required 90% load rate for the engine. However, this was not understood at the time of the testing due to a miscommunication between DTM operations and the stack tester. It was possible that a few operating modifications could have occurred to bring the engine above the minimum 90% load required. Therefore, DTM intends to retest this engine on October 17-18, 2024 to ensure the maximum load requirement is met. DTM also understands that per condition FGENGINES2 V.2, DTM will resume semi-annual testing for Engine #4 until two consecutive passing events are met to re-establish the reduced annual testing requirement. In addition, since Engine #4 was tested on June 4, 2024 and did not meet the permit requirements for load rate, DTM will be revising our recently submitted semi-annual deviation report to include this testing deviation.

Stack Testing Plan and Communications:

During our review of the NOV and testing that has occurred, it has identified that communications between the stack testing company and DTM operations needs to be improved. Moving forward, DTM intends to ensure that we collaborate with our contractor to improve these communications and confirm we are all on the same page at the time of testing. DTM has held meetings with our contractor to review our communication expectations/plans and will also be implementing stack testing checklists (attached). No stack tests will begin until both parties review and sign off on these checklists to ensure that operating parameters are being met.

Conclusion:

DT Midstream takes its responsibility very seriously regarding operating its facilities in a safe and environmentally compliant manner. DT Midstream appreciates the cooperation with EGLE and will continually strive towards environmental compliance during its operations. DT Midstream will continue to conduct due diligence, transparency with State and Federal regulatory agencies, and implement appropriate measures to assure that these types of noncompliances do not reoccur. Should you have any questions or would like further information, please do not hesitate to contact me at (724) 954-5329 or kimberly.walker@dtmidstream.com.

Sincerely,

Kimberly Alkaller

Kimberly A. Walker DT Midstream

Cc: William Novak (electronically) Benjamin Parrotta (electronically) Joseph Kotwicki (electronically)

Attachments: Stack Testing Checklists

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Washington 10 S Air Permit Requ Stack Testing Ch	Storage Corporation irements necklist – Engine #	on 2				
Testing Dates: <u>October 17-18, 2024</u>		2024				
Permit No.: <u>MI-ROP-N3391-2023</u>		2023				
Units to Be Test	ed¹:					
CE 1	CE 2 CE 6	⊠ CE	3	CE 4		
Engine Types: Cooper Besseme CAT 3616 Parameters to B	er 2SLB 🛛 🗆 E Tested ¹ :	FGENGINES1 FGENGINES2				
		NIMNEHC	las propapa			
	VOC 🛛	excluding	HCHO)			
Operational Sce	nario (Paramete	rs) that MUS	T be MET:			
100% Load ±10	%, 100% Speed ±	10%	FGENGINES2			
100% Forque ±10%, 100% Speed ±10%			FGENGINES1			
00% TOTQUE II	070, 10070 Speed I		FUEINUINEST			
Note any outlier	rs and document e	explanation ¹ :				
Stack Testing Company:			DTM Representative:			
Tester Name:			Contact #:			
Signature						

¹ Any deviation from the units or parameters to be tested requires authorization from DTM Environmental.



Washington 10 S Air Permit Requir Stack Testing Che	torage Corporation rements ecklist – Engine #4						
Testing Dates: _	October 17-18, 2024						
Permit No.: <u>MI-ROP-N3391-2023</u>							
Units to Be Teste	d ¹ :						
CE 1 CE 5	CE 2 CE 6	CE 3	3 🗆	CE 4	\boxtimes		
Engine Types: Cooper Bessemer 2SLB 🗌 FGENGINES1 CAT 3616 🖾 FGENGINES2							
Parameters to Be	e Tested ¹ :						
NOx 🗆 HCHO 🗆	CO 🛛 NMN VOC 🗌 exclu	NEHC (a uding H	as propane ICHO)				
Operational Scer	nario (Parameters) that N	MUST	be MET:				
100% Load ±10% 100% Torque ±1 60% Torque ±10	%, 100% Speed ±10% 10%, 100% Speed ±10% 0%, 100% Speed ±10%		FGENGINES2 FGENGINES1 FGENGINES1				
Note any outliers	and document explanation	on ¹ : _					
Stack Testing Com Tester Name: Contact #: Signature	pany: _RWDI		DTM Represent Contact #: Signature:	tative:			

¹ Any deviation from the units or parameters to be tested requires authorization from DTM Environmental.