LDAR Report

Enbridge

Accident Storage Compressor Station

Quarterly Report
COMAR 26.11.41
PERIOD: Q2 2023

Prepared By:

Montrose Air Quality Services, LLC

412 Darby Way (Suite 2)

Bridgeville, Pennsylvania 15017

www.montrose-env.com

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Company:	Enbridge	**Report:**	Quarterly LDAR		
District:	Storage-North	**Regulation(s):**	COMAR 26.11.41		
Facility Name:	Accident Storage Compressor Station	**Report Date:**	2023-Nov-08		
		Period:	2023-Jul-01	TO	2023-Sep-30

This report satisfies the requirements of COMAR 26.11.41 for the collection of fugitive emissions components at the above referenced compressor station.

Information required to be reported per §26.11.41 07 A.(1)(a)					
Monitoring Quarter	**Q3**	**N/A**	**N/A**	**N/A**	**N/A**
Survey Start Date/Time	9/11/2023 7:30				
Survey End Date/Time	9/11/2023 14:30				
LDAR Instrument	Optical Gas Imaging/GFX-320				
§26.11.41 07 A.(1)(a)(iii) Deviations from Monitoring Plan	No deviations from the Monitoring Plan				
Deviation(s) Explanation	N/A				
§26.11.41 07 A.(1)(a)(iv) - Number and type of components for which fugitive emissions were detected					
Valves	12				
Connectors	9				
Pressure Relief Devices					
Open-Ended Lines					
Flanges	6				
Compressors	1				
Instruments					
Meters					
Other					
Total No. of Leaks Detected	28				
§26.11.41 07 A.(1)(a)(vii) – Number and type of components that were tagged as a result of not being repaired during the monitoring survey					
Valves	10				
Connectors	2				
Pressure Relief Devices					
Open-Ended Lines					
Flanges	6				
Compressors	1				
Instruments					
Meters					
Other					
§26.11.41 07 A.(1)(a)(v) - Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emission components monitored					
Valves					
Connectors					
Pressure Relief Devices					
Open-Ended Lines					
Flanges					
Compressors					
Instruments					
Meters					
Other					

§26.11.41 07 A.(1)(a)(ix) - Date of successful repair of the fugitive emission component (see Repair List).

§26.11.41 07 A.(1)(a)(viii) - Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair (see DOR List).

§26.11.41 07 A.(1)(a)(x) - Type of instrument used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding (see Repair List).

Fugitive Emissions Components Placed on DOR

This summary satisfies the annual reporting requirements of§26.11.41 07 A.(1)(a)(viii), "number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair".

Component				
Quarter	**Q3**	**N/A**	**N/A**	**N/A**
Survey Date	**9/11/2023**			
Valves	10			
Connectors	1			
Pressure Relief Devices				
Open-Ended Lines				
Flanges	5			
Compressors	1			
Instruments				
Meters				
Other				
Total No. of Leaks placed on DOR	17			

Date Surveyed	Emission ID #	Component Type	Current Repair Status	Delay of Repair Explanation / Justification
06/12/2023	35625317	Connector	Delay of Repair	Shutdown Required
06/12/2023	35625319	Connector	Delay of Repair	Shutdown Required
06/12/2023	35625325	Instrument	Delay of Repair	Shutdown Required
06/12/2023	35625328	Flange	Delay of Repair	Shutdown Required
06/12/2023	35625329	Flange	Delay of Repair	Shutdown Required
06/12/2023	35625332	Flange	Delay of Repair	Shutdown Required
06/12/2023	35625334	Instrument	Delay of Repair	Shutdown Required
06/12/2023	35625335	Compressor	Delay of Repair	Shutdown Required
06/12/2023	35625337	Flange	Delay of Repair	Shutdown Required
06/12/2023	35625340	Compressor	Delay of Repair	Shutdown Required
06/12/2023	35625343	Compressor	Delay of Repair	Shutdown Required
06/12/2023	35625344	Flange	Delay of Repair	Shutdown Required
06/12/2023	35625351	Valve	Delay of Repair	Shutdown Required
06/12/2023	35625352	Valve	Delay of Repair	Shutdown Required
06/12/2023	35625355	Valve	Delay of Repair	Shutdown Required
11/14/2022	92510159	Valve	Delay of Repair	Shutdown required
11/14/2022	92510160	Valve	Delay of Repair	Shutdown required
09/11/2023	98110177	Flange	Delay of Repair	Shutdown Required
09/11/2023	98110180	Flange	Delay of Repair	Shutdown Required
09/11/2023	98110182	Connector	Delay of Repair	Shutdown Required
09/11/2023	98110185	Flange	Delay of Repair	Shutdown Required
09/11/2023	98110186	Flange	Delay of Repair	Shutdown Required
09/11/2023	98110189	Flange	Delay of Repair	Shutdown Required
09/11/2023	98110190	Valve	Delay of Repair	Shutdown Required
09/11/2023	98110191	Valve	Delay of Repair	Shutdown Required
09/11/2023	98110192	Compressor	Delay of Repair	Shutdown Required
09/11/2023	98110195	Valve	Delay of Repair	Shutdown Required
09/11/2023	98110197	Valve	Delay of Repair	Shutdown Required
09/11/2023	98110198	Valve	Delay of Repair	Shutdown Required
09/11/2023	98110199	Valve	Delay of Repair	Shutdown Required
09/11/2023	98110200	Valve	Delay of Repair	Shutdown Required
09/11/2023	98110201	Valve	Delay of Repair	Shutdown Required
09/11/2023	98110203	Valve	Delay of Repair	Shutdown Required
09/11/2023	98110204	Valve	Delay of Repair	Shutdown Required

Fugitive Emissions Components Repaired During Reporting Period

This summary satisfies the annual reporting requirements of §26.11.41 07 A.(1)(a)(ix), "date of successful repair of the fugitive emission component" and §26.11.41 07 A.(1)(a)(x), "type of instrument used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding".

Date Surveyed	Emission ID #	Date of Successful Repair	Repair Confirmation Method / Instrument
11/14/2022	92510155	8/8/2023	Bubble Test
06/12/2023	35625318	7/12/2023	Bubble Test
06/12/2023	35625324	7/12/2023	Bubble Test
06/12/2023	35625341	7/12/2023	Bubble Test
09/11/2023	98110174	9/13/2023	OGI
09/11/2023	98110175	9/14/2023	OGI
09/11/2023	98110178	9/14/2023	OGI
09/11/2023	98110181	9/14/2023	OGI
09/11/2023	98110183	9/14/2023	OGI
09/11/2023	98110184	9/14/2023	OGI
09/11/2023	98110188	9/13/2023	OGI
09/11/2023	98110194	9/13/2023	OGI
09/11/2023	98110196	9/13/2023	OGI

OGI Technician Training and Experience

Monitoring surveys are performed by personnel that are trained in the proper operation of the OGIC (Optical Gas Imaging Camera) to be used in the monitoring survey and that have prior experience using OGICs for the purposes of identifying fugitive emissions. Additionally, monitoring personnel are familiar with the types of equipment located at a natural gas compressor station. All monitoring personnel review each site specific monitoring plan prior to performing monitoring surveys at the Facility.

All Monitoring Technicians follow a protocol containing technical procedures, training requirements, and individual and team performance audits. This protocol ensures that each crew member follows a prescriptive training program. The training program includes minimum required field times for each module. Each module uses both written testing and on-site work performance audits to evaluate the crew member on their work performance.

Each crew member must successfully complete their training modules to be allowed to work as a member of the main field crew. The protocol also includes an audit program to evaluate work performance on an on-going basis. This system ensures that each crew member is adhering to the procedures and guidelines of the protocol.

Each monitoring technician:

1) holds a strong knowledge of oil and gas operations and has a detailed understanding of the various processes that are involved in the transportation and processing on natural gas.
2) is trained (certified) and experienced in the use of fugitive emission detection and measurement equipment;
3) has a minimum of 1000 hours of experience on the use of optical gas imaging, ultrasonic leak detection and emission flow rate measurement
4) maintains required safety training and strong understanding of applicable TARGET Safe Operating Procedures; and
5) received performance audits to ensure compliance to our prescriptive fugitive emission assessment protocol

The protocol contains technical procedures, training requirements, and individual and team performance audits. The purpose of our assessment protocol is to:

1) Maintain a high degree of Quality Control;
2) Ensure that all sources of fugitive emissions are identified;
3) Ensure that all source data is consistently recorded to provide reliable and effective emission reduction recommendations.

This protocol eliminates the common problems and barriers that cause many programs to fail. Our staff are trained and audited to avoid many of the common fugitive emission program problems. Some of these common problems include:

- Inexperienced with camera use and the concepts of infrared thermography
- Not using multiple camera angles
- Constantly moving the camera from scene to scene without pausing in each view to look for gas images
- Many leaks are missed by relying solely on the automatic mode (manual mode can be more effective in certain situations)
- Scanning too fast and missing components

Accurate data collection and entry is crucial to maintaining an effective Fugitive Emission Management Program. The data management protocol includes a data QA/QC review process that contains three levels of evaluation:

1) Technician Self Check – at the end of each assessment the technician must review each emission entry to locate and remediate any data inconsistencies
2) Team Lead Review – at the end of each work day the Team Lead will run a QA/QC evaluation on each assessment and emission to ensure that data has been entered following the TARGET Protocol.
3) Project Manager Evaluation – on a weekly basis the project manager will run all emission data through a QA/QC data evaluation to detect and eliminate any inconsistencies.