

2018 REPORTING TEMPLATE WORKSHOP TRANSMISSION COMPRESSOR STATIONS

Ed Newton 01/17/2019

Appendix 3 – Transmission Compressor Stations

Component Fugitive Leaks Tab

- » Proposed Methodology Improvement:
 - Subpart W and MRR differentiate between Compressor vs Non-compressor component
 - Revise “Device Type” column to “Facility/Device Type”
 - Facility = Compressor, Non-compressor component
 - Device Type = Valve, Connector, Pressure Relief Valve, Open-Ended Line, Meter, Other
 - Add Compressor Component Leaker EFs in Appendix 9
 - Add “Other” to “Facility/Device Type” options and EF table in Appendix 9
- » Proposed Template Change:

Transmission Compressor Station: Compressor and Component Fugitive Leaks:									Add		
ID	Geographic Location	Facility/Device Type	Bleed Rate	Manufacturer	Discovery Date (MM/DD/YY)	Repair Date (MM/DD/YY)	Prior Survey Date (MM/DD/YY)	Number of Days Leaking	Emission Factor (Mscf/day/dev)	Annual Emissions (Mscf)	Explanatory Notes / Comments

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Component Fugitive Leaks Tab

Table W-3A to Subpart W of Part 98—Default Total Hydrocarbon Leaker Emission Factors for Onshore Natural Gas Transmission Compression

Table W-3A to Subpart W of Part 98—Default Total Hydrocarbon Leaker Emission Factors for Onshore Natural Gas Transmission Compression

Onshore natural gas transmission compression	Emission factor (scf/hour/component)	If you survey using Method 21 as specified in §98.234(a)(7)
	If you survey using any of the methods in §98.234(a)(1) through (6)	
Leaker Emission Factors—Compressor Components, Gas Service		
Valve ¹	14.84	9.51
Connector	5.59	3.58
Open-Ended Line	17.27	11.07
Pressure Relief Valve	39.66	25.42
Meter or Instrument	19.33	12.39
Other ²	4.1	2.63
Leaker Emission Factors—Non-Compressor Components, Gas Service		
Valve ¹	6.42	4.12
Connector	5.71	3.66
Open-Ended Line	11.27	7.22
Pressure Relief Valve	2.01	1.29
Meter or Instrument	2.93	1.88
Other ²	4.1	2.63

¹Valves include control valves, block valves and regulator valves.

²Other includes any potential equipment leak emission point in gas service that is not specifically listed in this table, as specified in §98.232(e)(8).

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Table 3
Default Total Hydrocarbon Emission factors for Onshore Natural Gas Transmission Compression

Onshore Natural Gas Transmission compression	Emission Factor (scf/hour/component)
Leaker Emission Factors – Compressor Components, Gas Service	
Valve ¹	14.84
Connector	5.59
Open-Ended Line	17.27
Pressure Relief Valve	39.66
Meter	19.33
Leaker Emission Factors – Non-Compressor Components, Gas Service	
Valve ¹	6.42
Connector	5.71
Open-Ended Line	11.27
Pressure Relief Valve	2.01
Meter	2.93
Population Emission Factors – Gas Service	
Low Continuous Bleed Pneumatic Device Vents ²	1.37
High Continuous Bleed Pneumatic Device Vents ²	18.20
Intermittent Bleed Pneumatic Device Vents ²	2.35

¹ Valves include control valves, block valves, and regulator valves.
² Emission Factor is in units of "scf/hour/component."

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Component Type	Device Type	EPA MRR Table W-3A Subpart W		CARB MRR Table 3		SB-1371 Appx 9	Recommendation
		[scf/hr]	[Mscf/day]	[scf/hr]	[Mscf/day]	[Mscf/day]	[Mscf/day]
Compressor Component	Valve	14.84	0.3562	14.84	0.3562	No reference	Adopt CARB MRR
	Connector	5.59	0.1342	5.59	0.1342		
	Open-Ended Line	17.27	0.4145	17.27	0.4145		
	Pressure Relief Valve	39.66	0.9518	39.66	0.9518		
	Meter	19.33	0.4639	19.33	0.4639		
	Other	4.1	0.0984	No reference	N/A		
Non-compressor Component	Valve	6.42	0.1541	6.42	0.1541	0.1572	
	Connector	5.71	0.1370	5.71	0.1370	0.1399	
	Open-Ended Line	11.27	0.2705	11.27	0.2705	0.276	
	Pressure Relief Valve	2.01	0.0482	2.01	0.0482	0.0492	
	Meter	2.93	0.0703	2.93	0.0703	0.0728	
	Other	4.1	0.0984	No reference	N/A	No reference	Adopt EPA EF

Thank you!

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