

SDG&E, June 14, 2019

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.  
 In Response to Data Request, R15-01-008 - 2019 June Report  
 Appendix 3 - Rev. 03/29/19

Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange.

The emissions captured on this tab represent the emissions associated with the operational design and function of the compressor. Any intentional release of natural gas for safety or maintenance purposes should be included on the Blowdowns worksheet.

**Transmission Compressor Vented Emissions:**

ID	Geographic Location	Compressor Type	Prime Mover	Number of Cylinders	Number of Seals	Seal Type	Operating Mode: Pressurized Operating (hours)	Operating Mode: Pressurized Idle (hours)	Operating Mode: Depressurized Idle (hours)	Emission Factor: Pressurized Operating (scf/hr)	Emission Factor: Pressurized Idle (scf/hr)	Emission Factor: Depressurized Idle (scf/hr)	Annual Emissions (Mscf)	Explanatory Notes / Comments
1	92555	R	C	4	NA	NA	1481	6816	487	138.15	0	N/A	204.60	GHG Subpart W data
2	92555	R	C	4	NA	NA	1541	6625	618	8.55	0	N/A	13.18	GHG Subpart W data
3	92555	R	C	4	NA	NA	1409	6926	449	26.76	0	39.6	55.49	GHG Subpart W data
4	92555	C	C	NA	1	W	1355	NA	7429	14.951	NA	0.3	22.49	GHG Subpart W data
5	92555	C	C	NA	1	W	1226	NA	7558	6.922	NA	N/A	8.49	GHG Subpart W data
6	92555	C	C	NA	1	W	1807	NA	6977	5.18	NA	33	239.60	GHG Subpart W data
7	92555	C	C	NA	1	W	1281	NA	7503	4.459	NA	13.5	107.00	GHG Subpart W data
8	92555	R	C	2	NA	NA	546	6958	1280	16.72	0	N/A	9.13	GHG Subpart W data
9	92555	R	C	2	NA	NA	523	6918	1343	7.28	0	305.1	413.56	GHG Subpart W data
10	92555	R	C	4	NA	NA	3418	3567	1799	50.76	0	32.15	231.34	GHG Subpart W data
												Sum Total	1,305	

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**Transmission Compressor Station Blowdowns:**

ID	Geographic Location	Number of Blowdown Events	Annual Emissions (Mscf)	Explanatory Notes / Comments
N/A	92555	54	1505.62	Blowdown for Maintenance
N/A	92004	1	7.37	Blow down for valve changes at LNG facility
N/A	92004	1	46.72	Total Gas Lost Due to Filling operations at LNG facility
N/A	SDGE Territory	56	1.12	Relief Valve Inspections at Transmission Pipeline - Estimated avg. gas vented = 20 scf/insp (annual test with Nitrogen, gas vented is volume of gas in valve)
N/A	SDGE Territory	14	0.42	Filter Change-outs or Filter Inspections w/parts replacement - Estimated avg. gas vented = 30 scf/ea
N/A	SDGE Territory	41	0.082	Valve Actuators
N/A	SDGE Territory	2	0.004	Controllers
N/A	SDGE Territory	15	0.375	Orifice Plates
	Sum Total		1,562	

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At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange.

The emissions captured on this tab represent the emissions associated with the operational design and function of the component. Any intentional release of natural gas for safety or maintenance purposes should be included on the Blowdowns worksheet.

**Transmission Compressor Station Component Vented Emissions:**

ID/Number of Devices	Geographic Location	Device Type	Bleed Rate	Manufacturer	Engineering or Manufacturer's based Estimate of Emissions (Mscf/day/dev)	Annual Emissions (Mscf)	Explanatory Notes / Comments
41	92555	P	I	Misc.	0.0576	861.98	Valve Actuators
2	92555	P	L	Misc.	0.0336	24.53	Controllers
Sum Total						887	

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At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange.

The emissions captured on this tab represent the emissions associated unintentional leaks that if repaired would not leaking. If the component is releasing gas or "bleeding" as a result of its design or function then it is not to be captured in this tab.

Transmission Compressor Station: Compressor and Component Fugitive Leaks:

12/31/18 01/01/18

ID	Geographic Location	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	Annual Emissions (Mscf)	Explanatory Notes / Comments	Emission Factor (Mscf/day/dev)
Moreno	92555	V	100,000		3/1/2018	3/1/2018	8/30/2017	93	14.25	Appendix 9 EF	0.1541
Moreno	92555	V	100,000		3/1/2018	3/1/2018	8/30/2017	93	14.25	Appendix 9 EF	0.1541
Moreno	92555	V	100,000		3/1/2018	3/1/2018	8/30/2017	93	14.25	Appendix 9 EF	0.1541
Moreno	92555	C	100,000		3/1/2018	12/31/2018	8/30/2017	398	53.34	Appendix 9 EF	0.1342
Moreno	92555	V	100,000		3/1/2018	3/1/2018	8/30/2017	93	14.25	Appendix 9 EF	0.1541
Moreno	92555	V	100,000		3/1/2018	12/31/2018	8/30/2017	398	61.25	Appendix 9 EF	0.1541
Moreno	92555	V	100,000		3/1/2018	12/31/2018	8/30/2017	398	61.25	Appendix 9 EF	0.1541
Moreno	92555	V	20,000		3/1/2018	3/1/2018	8/30/2017	93	14.25	Appendix 9 EF	0.1541
Moreno	92555	V	100,000		3/1/2018	3/1/2018	8/30/2017	93	14.25	Appendix 9 EF	0.1541
Moreno	92555	V	100,000		3/1/2018	3/1/2018	8/30/2017	93	14.25	Appendix 9 EF	0.1541
Moreno	92555	V	30,000		3/1/2018	3/1/2018	8/30/2017	93	14.25	Appendix 9 EF	0.1541
Moreno	92555	C	100,000		3/1/2018	12/31/2018	8/30/2017	398	53.34	Appendix 9 EF	0.1342
Moreno	92555	C	11,000		3/1/2018	12/31/2018	8/30/2017	398	53.34	Appendix 9 EF	0.1342
Moreno	92555	V	30,000		3/1/2018	12/31/2018	8/30/2017	398	61.25	Appendix 9 EF	0.1541
Moreno	92555	V	100,000		3/1/2018	12/31/2018	8/30/2017	398	61.25	Appendix 9 EF	0.1541
Moreno	92555	V	13,000		3/1/2018	3/1/2018	8/30/2017	93	14.25	Appendix 9 EF	0.1541
Moreno	92555	V	36,000		3/1/2018	12/31/2018	8/30/2017	398	61.25	Appendix 9 EF	0.1541
Moreno	92555	Other	100,000		3/1/2018	12/31/2018	8/30/2017	398	39.11	Appendix 9 EF	0.0984
Moreno	92555	Other	26,000		3/1/2018	12/31/2018	8/30/2017	398	39.11	Appendix 9 EF	0.0984
Moreno	92555	C	100,000		3/1/2018	3/2/2018	8/30/2017	94	12.55	Appendix 9 EF	0.1342
Moreno	92555	C	100,000		3/1/2018	3/2/2018	8/30/2017	94	12.55	Appendix 9 EF	0.1342
Moreno	92555	C	11,000		3/1/2018	3/2/2018	8/30/2017	94	12.55	Appendix 9 EF	0.1342
Moreno	92555	V	70,000		3/1/2018	12/31/2018	8/30/2017	398	61.25	Appendix 9 EF	0.1541
Moreno	92555	V	166,000		3/1/2018	12/31/2018	8/30/2017	398	61.25	Appendix 9 EF	0.1541
Moreno	92555	V	30,000		3/2/2018	3/2/2018	8/30/2017	93	14.33	Appendix 9 EF	0.1541
Moreno	92555	C	20,000		3/2/2018	12/31/2018	8/30/2017	397	53.28	Appendix 9 EF	0.1342
Moreno	92555	V	100,000		3/2/2018	12/31/2018	8/30/2017	397	61.18	Appendix 9 EF	0.1541
Moreno	92555	V	100,000		3/2/2018	3/2/2018	8/30/2017	93	14.33	Appendix 9 EF	0.1541
Moreno	92555	C	100,000		3/2/2018	12/31/2018	8/30/2017	397	53.28	Appendix 9 EF	0.1342
Moreno	92555	C	20,000		3/2/2018	12/31/2018	8/30/2017	397	53.28	Appendix 9 EF	0.1342
Moreno	92555	PR	100,000		3/2/2018	12/31/2018	8/30/2017	397	19.14	Appendix 9 EF	0.0482
Moreno	92555	Other	20,000		3/2/2018	12/31/2018	8/30/2017	397	39.06	Appendix 9 EF	0.0984
Moreno	92555	C	10,400		3/2/2018	3/5/2018	8/30/2017	96	12.88	Appendix 9 EF	0.1342
Moreno	92555	C	10,800		3/2/2018	12/31/2018	8/30/2017	397	53.28	Appendix 9 EF	0.1342
Moreno	92555	Other	100,000		3/2/2018	12/31/2018	8/30/2017	397	39.06	Appendix 9 EF	0.0984
Moreno	92555	V	100,000		3/2/2018	12/31/2018	8/30/2017	397	61.18	Appendix 9 EF	0.1541
Moreno	92555	V	10,800		3/2/2018	12/31/2018	8/30/2017	397	61.18	Appendix 9 EF	0.1541
Moreno	92555	C	12,000		3/2/2018	3/5/2018	8/30/2017	96	12.88	Appendix 9 EF	0.1342
Moreno	92555	V	86,000		3/2/2018	3/2/2018	8/30/2017	93	14.33	Appendix 9 EF	0.1541
Moreno	92555	V	11,000		3/2/2018	3/2/2018	8/30/2017	93	14.33	Appendix 9 EF	0.1541
Moreno	92555	V	21,800		3/5/2018	3/5/2018	8/30/2017	95	14.56	Appendix 9 EF	0.1541
Moreno	92555	V	77,600		3/5/2018	12/31/2018	8/30/2017	396	60.95	Appendix 9 EF	0.1541
Moreno	92555	V	10,200		3/5/2018	3/5/2018	8/30/2017	95	14.56	Appendix 9 EF	0.1541
Moreno	92555	C	10,800		3/5/2018	3/5/2018	8/30/2017	95	12.68	Appendix 9 EF	0.1342

ID	Geographic Location	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	Annual Emissions (Mscf)	Explanatory Notes / Comments	Emission Factor (Mscf/day/dev)
Moreno	92555	C	12,752		4/9/2018	12/31/2018	8/30/2017	378	50.73	Appendix 9 EF	0.1342
Moreno	92555	V	11,495		4/9/2018	12/31/2018	8/30/2017	378	58.25	Appendix 9 EF	0.1541
Moreno	92555	PR	11,245		4/9/2018	12/31/2018	8/30/2017	378	18.22	Appendix 9 EF	0.0482
Moreno	92555	PR	20,781		4/9/2018	12/31/2018	8/30/2017	378	18.22	Appendix 9 EF	0.0482
Moreno	92555	PR	100,000		4/9/2018	12/31/2018	8/30/2017	378	18.22	Appendix 9 EF	0.0482
Moreno	92555	V	11,445		4/9/2018	12/31/2018	8/30/2017	378	58.25	Appendix 9 EF	0.1541
Moreno	92555	C	10,625		4/9/2018	12/31/2018	8/30/2017	378	50.73	Appendix 9 EF	0.1342
Moreno	92555	V	100,000		4/9/2018	12/31/2018	8/30/2017	378	58.25	Appendix 9 EF	0.1541
Moreno	92555	C	15,000		4/9/2018	12/31/2018	8/30/2017	378	50.73	Appendix 9 EF	0.1342
Moreno	92555	V	10,000		4/9/2018	12/31/2018	8/30/2017	378	58.25	Appendix 9 EF	0.1541
Moreno	92555	V	10,000		4/9/2018	12/31/2018	8/30/2017	378	58.25	Appendix 9 EF	0.1541
Moreno	92555	V	10,112		4/9/2018	12/31/2018	8/30/2017	378	58.25	Appendix 9 EF	0.1541
Moreno	92555	V	100,000		4/10/2018	12/31/2018	8/30/2017	378	58.17	Appendix 9 EF	0.1541
Moreno	92555	V	20,200		4/10/2018	12/31/2018	8/30/2017	378	58.17	Appendix 9 EF	0.1541
Moreno	92555	C	10,800		4/10/2018	12/31/2018	8/30/2017	378	50.66	Appendix 9 EF	0.1342
Moreno	92555	Other	12,600		4/10/2018	12/31/2018	8/30/2017	378	37.15	Appendix 9 EF	0.0984
Moreno	92555	C	10,150		4/10/2018	12/31/2018	8/30/2017	378	50.66	Appendix 9 EF	0.1342
Moreno	92555	C	100,000		4/10/2018	12/31/2018	8/30/2017	378	50.66	Appendix 9 EF	0.1342
Moreno	92555	C	100,000		4/10/2018	12/31/2018	8/30/2017	378	50.66	Appendix 9 EF	0.1342
Moreno	92555	V	11,500		4/10/2018	12/31/2018	8/30/2017	378	58.17	Appendix 9 EF	0.1541
Moreno	92555	V	10,245		4/10/2018	4/10/2018	8/30/2017	113	17.34	Appendix 9 EF	0.1541
Moreno	92555	V	20,610		4/10/2018	4/10/2018	8/30/2017	113	17.34	Appendix 9 EF	0.1541
Moreno	92555	V	48,925		4/10/2018	4/11/2018	8/30/2017	114	17.49	Appendix 9 EF	0.1541
Moreno	92555	V	18,900		4/11/2018	12/31/2018	8/30/2017	377	58.10	Appendix 9 EF	0.1541
Moreno	92555	V	49,675		4/11/2018	12/31/2018	8/30/2017	377	58.10	Appendix 9 EF	0.1541
Moreno	92555	V	100,000		8/20/2018	8/22/2018	3/5/2018	87	13.41	Appendix 9 EF	0.1541
Moreno	92555	V	100,000		8/20/2018	8/21/2018	3/5/2018	86	13.25	Appendix 9 EF	0.1541
Moreno	92555	V	15,000		8/21/2018	8/21/2018	3/5/2018	86	13.18	Appendix 9 EF	0.1541
Moreno	92555	Flange	12,000		8/21/2018	8/22/2018	3/5/2018	87	11.61	Appendix 9 EF	0.1342
Moreno	92555	Flange	13,000		8/21/2018	8/22/2018	3/5/2018	87	11.61	Appendix 9 EF	0.1342
Moreno	92555	V	20,000		8/21/2018	8/21/2018	3/5/2018	86	13.18	Appendix 9 EF	0.1541
Moreno	92555	V	11,000		8/21/2018	8/21/2018	3/5/2018	86	13.18	Appendix 9 EF	0.1541
Moreno	92555	V	100,000		8/21/2018	12/31/2018	3/5/2018	218	33.52	Appendix 9 EF	0.1541
Moreno	92555	C	10,600		8/22/2018	12/31/2018	3/5/2018	217	29.12	Appendix 9 EF	0.1342
Moreno	92555	Other	100,000		11/26/2018	11/27/2018	8/20/2018	51	5.02	Appendix 9 EF	0.0984
Moreno	92555	PR	38,000		11/27/2018	12/31/2018	8/20/2018	85	4.07	Appendix 9 EF	0.0482
Moreno	92555	PR	10,000		11/27/2018	12/31/2018	8/20/2018	85	4.07	Appendix 9 EF	0.0482
Moreno	92555	Flange	39,000		11/27/2018	12/31/2018	8/20/2018	85	11.34	Appendix 9 EF	0.1342
Moreno	92555	V	18,000		11/27/2018	12/31/2018	8/20/2018	85	13.02	Appendix 9 EF	0.1541
Moreno	92555	V	29,000		11/27/2018	11/30/2018	8/20/2018	54	8.24	Appendix 9 EF	0.1541
Moreno	92555	V	10,900		11/27/2018	11/30/2018	8/20/2018	54	8.24	Appendix 9 EF	0.1541
Moreno	92555	V	100,000		11/27/2018	12/31/2018	8/20/2018	85	13.02	Appendix 9 EF	0.1541
Moreno	92555	V	15,000		11/30/2018	12/31/2018	8/20/2018	83	12.79	Appendix 9 EF	0.1541
Moreno	92555	V	43,128		11/30/2018	12/31/2018	8/20/2018	83	12.79	Appendix 9 EF	0.1541
Moreno	92555	Flange	72,300		11/30/2018	12/31/2018	8/20/2018	83	11.14	Appendix 9 EF	0.1342
Moreno	92555	C	100,000		11/30/2018	12/31/2018	8/20/2018	83	11.14	Appendix 9 EF	0.1342

Sum Total **2,919**

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At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange.

**Transmission Compressor Station Storage Tank Emissions:**

Total Number	Discovery Date (DD/MM/YY)	Repair Date (DD/MM/YY)	Number of Days Emitting	Emission Factor (Mscf/yr)	Annual Emissions (Mscf)	Explanatory Notes / Comments
1	1/3/2018	1/3/2018	1	N/A	0.027816898	LNG Tank Pressure Release Due to Temperature Fluctuation
1	1/12/2018	1/12/2018	1	N/A	0.073285292	LNG Tank Pressure Release Due to Temperature Fluctuation
1	1/22/2018	1/22/2018	1	N/A	0.117896914	LNG Tank Pressure Release Due to Temperature Fluctuation
1	1/31/2018	1/31/2018	1	N/A	0.066155196	LNG Tank Pressure Release Due to Temperature Fluctuation
1	2/12/2018	2/12/2018	1	N/A	0.015647924	LNG Tank Pressure Release Due to Temperature Fluctuation
1	3/5/2018	3/5/2018	1	N/A	0.029192217	LNG Tank Pressure Release Due to Temperature Fluctuation
1	3/20/2018	3/20/2018	1	N/A	0.057125472	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/5/2018	4/5/2018	1	N/A	0.047791858	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/9/2018	4/9/2018	1	N/A	0.277212124	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/3/2018	6/3/2018	1	N/A	0.104018579	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/7/2018	6/7/2018	1	N/A	0.02367562	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/10/2018	6/10/2018	1	N/A	0.097937693	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/13/2018	6/13/2018	1	N/A	0.032988685	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/19/2018	6/19/2018	1	N/A	0.050821628	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/22/2018	6/22/2018	1	N/A	0.107502049	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/25/2018	6/25/2018	1	N/A	0.022015421	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/1/2018	7/1/2018	1	N/A	0.077440073	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/5/2018	7/5/2018	1	N/A	0.143836136	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/7/2018	7/7/2018	1	N/A	0.047084155	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/9/2018	7/9/2018	1	N/A	0.106029814	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/12/2018	7/12/2018	1	N/A	0.150019294	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/15/2018	7/15/2018	1	N/A	0.152329379	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/16/2018	7/16/2018	1	N/A	0.027918676	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/18/2018	7/18/2018	1	N/A	0.119075375	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/19/2018	7/19/2018	1	N/A	0.015755106	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/21/2018	7/21/2018	1	N/A	0.147306217	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/23/2018	7/23/2018	1	N/A	0.058005761	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/24/2018	7/24/2018	1	N/A	0.090240784	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/26/2018	7/26/2018	1	N/A	0.139990097	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/28/2018	7/28/2018	1	N/A	0.130436837	LNG Tank Pressure Release Due to Temperature Fluctuation
1	8/2/2018	8/2/2018	1	N/A	0.065304482	LNG Tank Pressure Release Due to Temperature Fluctuation
1	8/4/2018	8/4/2018	1	N/A	0.065168477	LNG Tank Pressure Release Due to Temperature Fluctuation
1	8/6/2018	8/6/2018	1	N/A	0.105697535	LNG Tank Pressure Release Due to Temperature Fluctuation

Total Number	Discovery Date (DD/MM/YY)	Repair Date (DD/MM/YY)	Number of Days Emitting	Emission Factor (Mscf/yr)	Annual Emissions (Mscf)	Explanatory Notes / Comments
1	8/9/2018	8/9/2018	1	N/A	0.151674975	LNG Tank Pressure Release Due to Temperature Fluctuation
1	8/11/2018	8/11/2018	1	N/A	0.11742302	LNG Tank Pressure Release Due to Temperature Fluctuation
1	8/13/2018	8/13/2018	1	N/A	0.091570613	LNG Tank Pressure Release Due to Temperature Fluctuation
1	8/16/2018	8/16/2018	1	N/A	0.158000195	LNG Tank Pressure Release Due to Temperature Fluctuation
1	8/18/2018	8/18/2018	1	N/A	0.136526872	LNG Tank Pressure Release Due to Temperature Fluctuation
1	8/20/2018	8/20/2018	1	N/A	0.101668294	LNG Tank Pressure Release Due to Temperature Fluctuation
1	8/22/2018	8/22/2018	1	N/A	0.131059856	LNG Tank Pressure Release Due to Temperature Fluctuation
1	8/23/2018	8/23/2018	1	N/A	0.014656388	LNG Tank Pressure Release Due to Temperature Fluctuation
1	8/25/2018	8/25/2018	1	N/A	0.124629303	LNG Tank Pressure Release Due to Temperature Fluctuation
1	8/27/2018	8/27/2018	1	N/A	0.117694718	LNG Tank Pressure Release Due to Temperature Fluctuation
1	8/30/2018	8/30/2018	1	N/A	0.074758144	LNG Tank Pressure Release Due to Temperature Fluctuation
1	9/1/2018	9/1/2018	1	N/A	0.089531047	LNG Tank Pressure Release Due to Temperature Fluctuation
1	9/4/2018	9/4/2018	1	N/A	0.094296287	LNG Tank Pressure Release Due to Temperature Fluctuation
1	9/8/2018	9/8/2018	1	N/A	0.084265552	LNG Tank Pressure Release Due to Temperature Fluctuation
1	9/10/2018	9/10/2018	1	N/A	0.014896521	LNG Tank Pressure Release Due to Temperature Fluctuation
1	9/13/2018	9/13/2018	1	N/A	0.063936204	LNG Tank Pressure Release Due to Temperature Fluctuation
1	9/15/2018	9/15/2018	1	N/A	0.044249547	LNG Tank Pressure Release Due to Temperature Fluctuation
1	9/17/2018	9/17/2018	1	N/A	0.062513141	LNG Tank Pressure Release Due to Temperature Fluctuation
1	9/20/2018	9/20/2018	1	N/A	0.068201432	LNG Tank Pressure Release Due to Temperature Fluctuation
1	9/22/2018	9/22/2018	1	N/A	0.074768839	LNG Tank Pressure Release Due to Temperature Fluctuation
1	9/24/2018	9/24/2018	1	N/A	0.080211573	LNG Tank Pressure Release Due to Temperature Fluctuation
1	9/27/2018	9/27/2018	1	N/A	0.043091747	LNG Tank Pressure Release Due to Temperature Fluctuation
1	9/29/2018	9/29/2018	1	N/A	0.059555937	LNG Tank Pressure Release Due to Temperature Fluctuation
1	10/1/2018	10/1/2018	1	N/A	0.073413753	LNG Tank Pressure Release Due to Temperature Fluctuation
1	10/4/2018	10/4/2018	1	N/A	0.081944236	LNG Tank Pressure Release Due to Temperature Fluctuation
1	12/7/2018	12/7/2018	1	N/A	0.032475754	LNG Tank Pressure Release Due to Temperature Fluctuation
1	12/13/2018	12/13/2018	1	N/A	0.102596233	LNG Tank Pressure Release Due to Temperature Fluctuation
1	12/13/2018	12/13/2018	1	N/A	0.018349606	LNG Tank Pressure Release Due to Temperature Fluctuation
1	12/21/2018	12/21/2018	1	N/A	0.026106274	LNG Tank Pressure Release Due to Temperature Fluctuation
1	12/26/2018	12/26/2018	1	N/A	0.106176831	LNG Tank Pressure Release Due to Temperature Fluctuation
1	12/26/2018	12/26/2018	1	N/A	0.030133896	LNG Tank Pressure Release Due to Temperature Fluctuation
1	1/3/2018	1/3/2018	1	N/A	0.059694316	LNG Tank Pressure Release Due to Temperature Fluctuation
1	1/12/2018	1/12/2018	1	N/A	0.101185878	LNG Tank Pressure Release Due to Temperature Fluctuation
1	1/17/2018	1/17/2018	1	N/A	0.030815759	LNG Tank Pressure Release Due to Temperature Fluctuation
1	1/22/2018	1/22/2018	1	N/A	0.076104215	LNG Tank Pressure Release Due to Temperature Fluctuation
1	1/31/2018	1/31/2018	1	N/A	0.092558151	LNG Tank Pressure Release Due to Temperature Fluctuation
1	2/5/2018	2/5/2018	1	N/A	0.024391668	LNG Tank Pressure Release Due to Temperature Fluctuation
1	2/12/2018	2/12/2018	1	N/A	0.086024758	LNG Tank Pressure Release Due to Temperature Fluctuation
1	3/5/2018	3/5/2018	1	N/A	0.073425549	LNG Tank Pressure Release Due to Temperature Fluctuation
1	3/30/2018	3/30/2018	1	N/A	0.014759313	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/2/2018	4/2/2018	1	N/A	0.122806644	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/6/2018	4/6/2018	1	N/A	0.3106987	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/16/2018	4/16/2018	1	N/A	0.148794555	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/24/2018	4/24/2018	1	N/A	0.016229299	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/27/2018	4/27/2018	1	N/A	0.044291735	LNG Tank Pressure Release Due to Temperature Fluctuation

Total Number	Discovery Date (DD/MM/YY)	Repair Date (DD/MM/YY)	Number of Days Emitting	Emission Factor (Mscf/yr)	Annual Emissions (Mscf)	Explanatory Notes / Comments
1	5/4/2018	5/4/2018	1	N/A	0.301424111	LNG Tank Pressure Release Due to Temperature Fluctuation
1	5/8/2018	5/8/2018	1	N/A	0.342374822	LNG Tank Pressure Release Due to Temperature Fluctuation
1	5/11/2018	5/11/2018	1	N/A	0.075074908	LNG Tank Pressure Release Due to Temperature Fluctuation
1	5/12/2018	5/12/2018	1	N/A	0.017705119	LNG Tank Pressure Release Due to Temperature Fluctuation
1	5/14/2018	5/14/2018	1	N/A	0.305559524	LNG Tank Pressure Release Due to Temperature Fluctuation
1	5/28/2018	5/28/2018	1	N/A	0.033470721	LNG Tank Pressure Release Due to Temperature Fluctuation
1	5/29/2018	5/29/2018	1	N/A	0.364117996	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/1/2018	6/1/2018	1	N/A	0.011719127	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/3/2018	6/3/2018	1	N/A	0.382812458	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/7/2018	6/7/2018	1	N/A	0.368713003	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/8/2018	6/8/2018	1	N/A	0.046052465	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/10/2018	6/10/2018	1	N/A	0.38053365	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/12/2018	6/12/2018	1	N/A	0.011582512	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/13/2018	6/13/2018	1	N/A	0.373624651	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/14/2018	6/14/2018	1	N/A	0.356681484	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/17/2018	6/17/2018	1	N/A	0.082172094	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/18/2018	6/18/2018	1	N/A	0.11094714	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/19/2018	6/19/2018	1	N/A	0.367572208	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/22/2018	6/22/2018	1	N/A	0.380568325	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/25/2018	6/25/2018	1	N/A	0.372076622	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/26/2018	6/26/2018	1	N/A	0.031390434	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/27/2018	6/27/2018	1	N/A	0.375588771	LNG Tank Pressure Release Due to Temperature Fluctuation
1	6/30/2018	6/30/2018	1	N/A	0.36919609	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/1/2018	7/1/2018	1	N/A	0.368462173	LNG Tank Pressure Release Due to Temperature Fluctuation
1	7/7/2018	7/7/2018	1	N/A	0.043567662	LNG Tank Pressure Release Due to Temperature Fluctuation
1	9/20/2018	9/20/2018	1	N/A	0.040230403	LNG Tank Pressure Release Due to Temperature Fluctuation
1	10/18/2018	10/18/2018	1	N/A	0.165816138	LNG Tank Pressure Release Due to Temperature Fluctuation
1	10/29/2018	10/29/2018	1	N/A	0.167019982	LNG Tank Pressure Release Due to Temperature Fluctuation
1	11/6/2018	11/6/2018	1	N/A	0.162545745	LNG Tank Pressure Release Due to Temperature Fluctuation
1	11/6/2018	11/6/2018	1	N/A	0.139094811	LNG Tank Pressure Release Due to Temperature Fluctuation
1	11/7/2018	11/7/2018	1	N/A	0.142541027	LNG Tank Pressure Release Due to Temperature Fluctuation
1	12/13/2018	12/13/2018	1	N/A	0.055301639	LNG Tank Pressure Release Due to Temperature Fluctuation

Sum Total

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Appendix 3 - Rev. 03/29/19

Header column "Comment" boxes displayed below for reference.

Header column "Comment" boxes displayed below for reference.	
Column Heading	Description and Definition of Required Contents (IF not self-explanatory)
<b>Compressor Vented Emissions</b>	
<b>ID</b>	
<b>Geographic Location</b>	GIS, zip code, or equivalent
<b>Compressor Type</b>	C = centrifugal R = reciprocating
<b>Prime Mover</b>	
<b>Number of Cylinders</b>	
<b>Number of Seals</b>	
<b>Seal Type</b>	W = wet D = dry NA = not applicable
<b>Operating Mode: Pressurized Operating (hours)</b>	
<b>Operating Mode: Pressurized Idle (hours)</b>	
<b>Operating Mode: Depressurized Idle (hours)</b>	
<b>Emission Factor: Pressurized Operating (scf/hr)</b>	
<b>Emission Factor: Pressurized Idle (scf/hr)</b>	
<b>Emission Factor: Depressurized Idle (scf/hr)</b>	
<b>Annual Emissions (Mscf)</b>	

<b>Explanatory Notes / Comments</b>	
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<b>Blowdowns</b>	
<b>ID</b>	
<b>Geographic Location</b>	GIS, zip code, or equivalent
<b>Number of Blowdown Events</b>	
<b>Annual Emissions (Mscf)</b>	
<b>Explanatory Notes / Comments</b>	

<b>Component Vented Emissions</b>	
<b>ID</b>	
<b>Geographic Location</b>	GIS, zip code, or equivalent
<b>Device Type</b>	C = connector O = open-ended line M = meter P = pneumatic device PR = pressure relief valve V = valve
<b>Bleed Rate</b>	L = low bleed I = intermittent bleed H = high bleed NA = not applicable
<b>Manufacturer</b>	
<b>Engineering or Manufacturer's based Estimate of Emissions</b>	
<b>Annual Emissions (Mscf)</b>	
<b>Explanatory Notes / Comments</b>	

<b>Compressor &amp; Component Leaks</b>	
<b>ID</b>	
<b>Geographic Location</b>	GIS, zip code, or equivalent

<b>Device Type</b>	<p>C = connector  O = open-ended line  M = meter  P = pneumatic device  PR = pressure relief valve  V = valve</p>
<b>Bleed Rate</b>	<p>L = low bleed  I = intermittent bleed  H = high bleed  NA = not applicable</p>
<b>Manufacturer</b>	
<b>Discovery Date (MM/DD/YY)</b>	<p>List the actual discovery date.</p> <p>If the leak was discovered in the year of interest or carried over from prior year, then we will assume the component was leaking from the beginning of the year for emissions reporting purposes, or prior survey date if surveyed previously within the year of interest.</p>
<b>Repair Date (MM/DD/YY)</b>	<p>Date that the component repair stopped the leak. Any associated blowdowns as a result of the repair should be included in the blowdowns tab.</p>
<b>Prior Survey Date (MM/DD/YY)</b>	<p>Before the discovery date of the leak, there was a "Prior Survey Date" when the compressor station was tested and no leak was found.</p> <p>There should be records as to when the compressor station was last surveyed. If the survey spanned two or more days, enter the final date.</p> <p>Note, a facility level survey date is sufficient to establish the prior survey date.</p>

<p><b>Number of Days Leaking</b></p>	<p>The algorithm that is used for determining the number of days leaking should conform to the following guidance:  For the number days leaking prior to the date of discovery (survey date in the year of interest), calculate the number of days between the Discovery Date and the Prior Survey Date then divided by 2. [Dividing by 2 approximates the average time leaking between the leak discovery and the prior survey date. See below guidance when a leak is discovered in a prior period and repaired in the year of interest.]</p> <p><math>(\text{Discovery Date} - \text{Prior Survey Date})/2</math></p> <p>Calculate the number of days leaking after discovery (survey) date, by subtracting the discovery date from the repair date, unless the leak has not been repaired, where the number of days should be calculated by subtracting the discovery date from December 31 of the year of interest.*</p> <p><math>(\text{Repair Date} - \text{Discovery Date})</math>, unless repair date greater than 12/31/XX then use 12/31/XX</p> <p>---</p> <p><math>\text{Days Leaking} = (\text{Repair Date} - \text{Discovery Date}) + (\text{Discovery Date} - \text{Prior Survey Date})/2 + 1</math></p> <p>* [This requires tracking the leak across different years, because the leak could be minor and conceivably span more than year before getting repaired. Therefore, in the cases where a leak is carried over to a subsequent year, an annual calculation should be made to reflect that the number of days leaking in the prior year have already been reported in the annual emissions inventory. In subsequent years the carried over leaks should reflect a beginning date of January 1 of the year of interest.]</p>
<p><b>Emission Factor (Mscf/day)</b></p>	
<p><b>Annual Emissions (Mscf)</b></p>	
<p><b>Explanatory Notes / Comments</b></p>	

<p><b>Storage Tanks</b></p>	
<p><b>Total Number</b></p>	
<p><b>Discovery Date (DD/MM/YY)</b></p>	

<b>Repair Date (DD/MM/YY)</b>	
<b>Number of Days Emitting</b>	Emitting from discovery date thru the repair date (if repaired in year of interest) or December 31 of subject year, whichever is earlier. (Duration of Leak = discovery date - repair date (or December 31) + 1 day.)
<b>Emission Factor (Mscf/yr)</b>	
<b>Annual Emissions (Mscf)</b>	