SDG&E, June 15, 2021

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 - 2021 June Report
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Transmission Compressor Vented Emissions:

ID	Geographic Location	Compressor Type	Prime Mover	Number of Cylinders	Number of Seals	Seal Type	Measurement Frequency	Emission Factor: Measurement Date - Pressurized Operations	Operating Mode: Pressurized Operating (hours)	Operating Mode: Pressurized Idle (hours)	Operating Mode: Depressurized Idle (hours)	Operating Mode: Offline (Hours)	Emission Factor: Pressurized Operating(scf/hr)	Emission Factor: Pressurized Idle (scf/hr)	Emission Factor: Depressurized Idle (scf/hr)	Emission Factor: Offline (scf/hr)	Emission Factor: Pressurized Operating - Rod Packing (scf/hr)	Emission Factor: Pressurized Operating - Blowdown Valve (scf/hr)	Emission Factor: Pressurized Operating - Wet Seal Oil Degassing Vent (scf/hr)	Emission Factor: Pressurized Operating - Wet Seal (scf/hr)	Emission Factor: Pressurized Operating - Dry Seal (scf/hr)	Emission Factor: Pressurized Idle - Rod Packing (scf/hr)	Emission Factor: Pressurized Idle - Blowdown Valve (scf/hr)	Emission Factor: Pressurized Idle - Wet Seal Oil Degassing Vent (scf/hr)	Emission Factor: Pressurized Idle - Wet Seal (scf/hr)	Emission Factor: Pressurized Idle - Dry Seal (scf/hr)	Emission Factor: Pressurized Idle - Isolation Valve (scf/hr)	Annual Emissions (Mscf)	Explanatory Notes / Comments
Clark 1	92555	R	IC	8	NA	NA	A		1737	6052	398		94.98	0	0		94.98	0	NA		0	0	0	0	0	NA	0	164.9	
Clark 2	92555	R	IC	8	NA	NA	A		2165	6028	591		0	0	0		0	0	NA		0	0	0	0	0	NA	0	0.0	
Clark 3	92555	R	IC	8	NA	NA	A		2343	5991	451		22.967	0	0		22.967	0	NA		0	0	0	0	0	NA	0	53.8	
Solar 4	92555	C	T	NA	1	W	A		2896.7	0	5887		14.344	0	0			0	0	14.344	0	0	0	0	0	NA	0	41.6	
Solar 5	92555	C	T	NA	1	W	A		1794	0	6990		5.757	0	0			0	0	5.757	0	0	0	0	0	NA	0	10.3	
Solar 6	92555	C	T	NA	1	W	A		2682	0	6102		4.035	0	0			0	0	4.035	0	0	0	0	0	NA	0	10.8	
Solar 7	92555	C	T	NA	1	W	A		1436	0	7348		4.506	0	0			0	0	4.506	0	0	0	0	0	NA	0	6.5	
Cooper 8	92555	R	IC	8	NA	NA	A		912	7140	732		62.91	0	0		62.91	0	NA		0	0	0	0	0	NA	0	57.4	
Cooper 9	92555	R	IC	8	NA	NA	A		1203	6966	615		124.8	0	0		124.8	0	NA		0	0	0	0	0	NA	0	150.1	
Cooper 10	92555	R	IC	8	NA	NA	A		5884	2186	714		63.203	0	0		63.203	0	NA		0	0	0	0	0	NA	0	371.9	
																					0	0	0	0	0	NA	0	0.0	
																												867.28	

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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.

Transmission Compressor Station Blowdowns:

ID	Geographic Location	Number of Blowdown Events	Annual Emissions (Mscf)	Explanatory Notes / Comments
NA	92555	186	1640.92	Blowdowns for maintenance
N/A	SDG&E territory	22	0.5	Relief Valve Inspections at Transmission Pipeline - Estimated avg. gas vented = 20 scf/insp
N/A	SDG&E territory	14	0.35	Meter/orifice 25 scf/each
N/A	SDG&E territory	8	0.16	Filter Change-outs or Filter Inspections w/parts replacement - Estimated avg. gas vented = 30 scf/ea
N/A	SDG&E territory	48	0.1	Valve Actuator inspection
N/A	92004	1	7.37	Blowdown for valve changes at LNG facility
N/A	92004	1	48.97	Total Gas Lost Due to filling operations at LNG facility
N/A	92004	1	8.37	Total Gas Lost due to transfer operations at LNG facility
			1,706.76	

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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 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	Geographic Location	Device Type	Bleed Rate	Manufacturer	Engineering or Manufacturer's based Estimate of Emissions	Annual Emissions (Mscf)	Explanatory Notes / Comments
19	92555	P	I	Misc.	0.0576	400.55	Actuators

Sum Total **401** Provided as an example.

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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 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: 12/31/20 01/01/20

ID	Geographic Location	Facility/Device Type	Emission Factor: Mscf/day/dev	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
304.21	92555	C	0.1342		2/24/2020	4/25/2020	11/4/2019	89	12	leak > 10,000 ppm
304.23	92555	C	0.1342		2/24/2020	4/25/2020	11/4/2019	89	12	leak > 10,000 ppm
666.18	92555	C	0.137		2/24/2020	2/25/2020	11/4/2019	29	4	leak > 10,000 ppm
304.63	92555	Other	0.1342		2/24/2020	2/25/2020	11/4/2019	29	4	leak > 10,000 ppm
304	92555	Other	0.1342		2/24/2020	4/25/2020	11/4/2019	89	12	leak > 10,000 ppm
2385.02	92555	Other	0.1342		2/24/2020	2/27/2020	11/4/2019	31	4	leak > 10,000 ppm
15	92555	PR	0.0482		2/26/2020	2/26/2020	11/4/2019	29	1	leak > 10,000 ppm
29	92555	V	0.1541		2/26/2020	3/2/2020	11/4/2019	34	5	leak > 10,000 ppm
655.16	92555	C	0.137		6/10/2020	6/10/2020	2/24/2020	82	11	leak > 10,000 ppm
2385.12	92555	C	0.1342		6/10/2020	6/15/2020	2/24/2020	87	12	leak > 10,000 ppm
13148	92555	Other	0.3562		6/10/2020	6/10/2020	2/24/2020	82	29	leak > 10,000 ppm
610	92555	V	0.1541		8/24/2020	8/27/2020	6/10/2020	122	19	leak > 10,000 ppm
686	92555	V	0.1541		8/24/2020	8/27/2020	6/10/2020	122	19	leak > 10,000 ppm
317.3	92555	C	0.137		8/26/2020	8/27/2020	6/10/2020	121	17	leak > 10,000 ppm
332.01	92555	C	0.137		8/26/2020	8/27/2020	6/10/2020	121	17	leak > 10,000 ppm
950.02	92555	V	0.1541		12/7/2020	12/7/2020	8/26/2020	172	26	leak > 10,000 ppm
957.22	92555	V	0.1541		12/7/2020	12/7/2020	8/26/2020	172	26	leak > 10,000 ppm
376.1	92555	C	0.1342		12/8/2020	12/8/2020	8/26/2020	172	23	leak > 10,000 ppm
375.37	92555	C	0.1342		12/8/2020	12/8/2020	8/26/2020	172	23	leak > 10,000 ppm
373.1	92555	C	0.1342		12/8/2020	12/8/2020	8/26/2020	172	23	leak > 10,000 ppm
374.1	92555	C	0.1342		12/8/2020	12/8/2020	8/26/2020	172	23	leak > 10,000 ppm
374.45	92555	C	0.1342		12/8/2020	12/8/2020	8/26/2020	172	23	leak > 10,000 ppm
327.18	92555	V	0.1342		12/8/2020	12/8/2020	8/26/2020	172	23	leak > 10,000 ppm
655.1	92555	C	0.137		5/15/2019	4/25/2020	3/15/2019	232	NA	leak < 10,000 ppm Included for informational Purposes Only
654	92555	V	0.1541		5/15/2019	4/25/2020	3/15/2019	232	NA	leak < 10,000 ppm Included for informational Purposes Only
642	92555	V	0.1541		8/13/2019	4/25/2020	5/15/2019	187	NA	leak < 10,000 ppm Included for informational Purposes Only
652	92555	V	0.1541		8/13/2019	4/25/2020	5/15/2019	187	NA	leak < 10,000 ppm Included for informational Purposes Only
304.25	92555	C	0.1342		2/24/2020	4/25/2020	11/4/2019	89	NA	leak < 10,000 ppm Included for informational Purposes Only
316.34	92555	C	0.1342		2/24/2020	2/25/2020	11/4/2019	29	NA	leak < 10,000 ppm Included for informational Purposes Only
686.33	92555	C	0.137		2/24/2020	2/25/2020	11/4/2019	29	NA	leak < 10,000 ppm Included for informational Purposes Only
686.43	92555	C	0.137		2/24/2020	2/25/2020	11/4/2019	29	NA	leak < 10,000 ppm Included for informational Purposes Only
2385.06	92555	C	0.1342		2/24/2020	2/27/2020	11/4/2019	31	NA	leak < 10,000 ppm Included for informational Purposes Only
354.33	92555	C	0.137		2/24/2020	2/25/2020	11/4/2019	29	NA	leak < 10,000 ppm Included for informational Purposes Only
938.25	92555	C	0.137		2/24/2020	2/25/2020	11/4/2019	29	NA	leak < 10,000 ppm Included for informational Purposes Only
949.09	92555	C	0.137		2/24/2020	4/25/2020	11/4/2019	89	NA	leak < 10,000 ppm Included for informational Purposes Only
304.47	92555	Other	0.1342		2/24/2020	4/25/2020	11/4/2019	89	NA	leak < 10,000 ppm Included for informational Purposes Only
304.06	92555	Other	0.1342		2/24/2020	3/2/2020	11/4/2019	35	NA	leak < 10,000 ppm Included for informational Purposes Only
304.13	92555	Other	0.1342		2/24/2020	4/25/2020	11/4/2019	89	NA	leak < 10,000 ppm Included for informational Purposes Only
304.2	92555	Other	0.1342		2/24/2020	3/2/2020	11/4/2019	35	NA	leak < 10,000 ppm Included for informational Purposes Only
305.09	92555	Other	0.1342		2/24/2020	2/27/2020	11/4/2019	31	NA	leak < 10,000 ppm Included for informational Purposes Only
2385.11	92555	Other	0.1342		2/24/2020	2/27/2020	11/4/2019	31	NA	leak < 10,000 ppm Included for informational Purposes Only
2385.09	92555	Other	0.1342		2/24/2020	2/27/2020	11/4/2019	31	NA	leak < 10,000 ppm Included for informational Purposes Only
2385.05	92555	Other	0.1342		2/24/2020	3/2/2020	11/4/2019	35	NA	leak < 10,000 ppm Included for informational Purposes Only
94	92555	V	0.1541		2/24/2020	2/25/2020	11/4/2019	29	NA	leak < 10,000 ppm Included for informational Purposes Only
630.1	92555	C	0.137		2/25/2020	2/25/2020	11/4/2019	29	NA	leak < 10,000 ppm Included for informational Purposes Only
902.06	92555	C	0.137		2/25/2020	2/25/2020	11/4/2019	29	NA	leak < 10,000 ppm Included for informational Purposes Only
376.2	92555	C	0.1342		2/25/2020	3/10/2020	11/4/2019	43	NA	leak < 10,000 ppm Included for informational Purposes Only

375.65	92555	C	0.1342	2/25/2020	2/25/2020	11/4/2019	29	NA	leak < 10,000 ppm Included for informational Purposes Only
624.03	92555	V	0.1541	2/25/2020	2/25/2020	11/4/2019	29	NA	leak < 10,000 ppm Included for informational Purposes Only
630.05	92555	V	0.1541	2/25/2020	2/25/2020	11/4/2019	29	NA	leak < 10,000 ppm Included for informational Purposes Only
356.16	92555	C	0.137	2/26/2020	2/26/2020	11/4/2019	29	NA	leak < 10,000 ppm Included for informational Purposes Only
613.06	92555	C	0.137	2/26/2020	2/26/2020	11/4/2019	29	NA	leak < 10,000 ppm Included for informational Purposes Only
617.1	92555	C	0.137	2/26/2020	2/26/2020	11/4/2019	29	NA	leak < 10,000 ppm Included for informational Purposes Only
664.22	92555	C	0.137	2/26/2020	3/10/2020	11/4/2019	42	NA	leak < 10,000 ppm Included for informational Purposes Only
686.31	92555	C	0.137	6/8/2020	6/8/2020	2/24/2020	81	NA	leak < 10,000 ppm Included for informational Purposes Only
348.09	92555	C	0.137	6/8/2020	6/8/2020	2/24/2020	81	NA	leak < 10,000 ppm Included for informational Purposes Only
950.16	92555	C	0.137	6/8/2020	6/8/2020	2/24/2020	81	NA	leak < 10,000 ppm Included for informational Purposes Only
939.12	92555	C	0.137	6/8/2020	6/8/2020	2/24/2020	81	NA	leak < 10,000 ppm Included for informational Purposes Only
682	92555	Other	0.3562	6/8/2020	6/8/2020	2/24/2020	81	NA	leak < 10,000 ppm Included for informational Purposes Only
619.12	92555	C	0.137	6/10/2020	6/10/2020	2/24/2020	82	NA	leak < 10,000 ppm Included for informational Purposes Only
616.1	92555	C	0.137	6/10/2020	6/10/2020	2/24/2020	82	NA	leak < 10,000 ppm Included for informational Purposes Only
310.05	92555	V	0.3562	6/10/2020	6/15/2020	2/24/2020	87	NA	leak < 10,000 ppm Included for informational Purposes Only
77.12	92555	C	0.137	8/25/2020	8/25/2020	6/10/2020	120	NA	leak < 10,000 ppm Included for informational Purposes Only
959	92555	PR	0.0482	8/25/2020	9/9/2020	6/10/2020	135	NA	leak < 10,000 ppm Included for informational Purposes Only
637.09	92555	V	0.1541	8/25/2020	8/25/2020	6/10/2020	120	NA	leak < 10,000 ppm Included for informational Purposes Only
373.17	92555	V	0.3562	8/25/2020	8/25/2020	6/10/2020	120	NA	leak < 10,000 ppm Included for informational Purposes Only
317.4	92555	C	0.137	8/26/2020	8/27/2020	6/10/2020	121	NA	leak < 10,000 ppm Included for informational Purposes Only
604.05	92555	C	0.137	8/26/2020	8/27/2020	6/10/2020	121	NA	leak < 10,000 ppm Included for informational Purposes Only
347.02	92555	C	0.137	12/7/2020		8/26/2020	197	NA	leak < 10,000 ppm Included for informational Purposes Only
959	92555	PR	0.0482	12/7/2020	12/20/2020	8/26/2020	185	NA	leak < 10,000 ppm Included for informational Purposes Only
949.05	92555	V	0.1541	12/7/2020	12/7/2020	8/26/2020	172	NA	leak < 10,000 ppm Included for informational Purposes Only
319.17	92555	C	0.137	12/8/2020	12/8/2020	8/26/2020	172	NA	leak < 10,000 ppm Included for informational Purposes Only
325.19	92555	C	0.137	12/8/2020	12/8/2020	8/26/2020	172	NA	leak < 10,000 ppm Included for informational Purposes Only

368.40

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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	1/21/2020	1/21/2020	1	N/A	0.048287645	LNG Tank Pressure Release Due to Temperature Fluctuation
1	1/27/2020	1/27/2020	1	N/A	0.046625991	LNG Tank Pressure Release Due to Temperature Fluctuation
1	1/27/2020	1/27/2020	1	N/A	0.026217554	LNG Tank Pressure Release Due to Temperature Fluctuation
1	2/13/2020	2/13/2020	1	N/A	0.044685709	LNG Tank Pressure Release Due to Temperature Fluctuation
1	3/2/2020	3/2/2020	1	N/A	0.020000506	LNG Tank Pressure Release Due to Temperature Fluctuation
1	3/2/2020	3/2/2020	1	N/A	0.022797152	LNG Tank Pressure Release Due to Temperature Fluctuation
1	3/8/2020	3/8/2020	1	N/A	0.052109181	LNG Tank Pressure Release Due to Temperature Fluctuation
1	3/8/2020	3/8/2020	1	N/A	0.041563163	LNG Tank Pressure Release Due to Temperature Fluctuation
1	3/25/2020	3/25/2020	1	N/A	0.152596164	LNG Tank Pressure Release Due to Temperature Fluctuation
1	3/27/2020	3/27/2020	1	N/A	0.085850361	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/2/2020	4/2/2020	1	N/A	0.151618862	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/3/2020	4/3/2020	1	N/A	0.091367808	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/8/2020	4/8/2020	1	N/A	0.063329252	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/12/2020	4/12/2020	1	N/A	0.117583262	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/15/2020	4/15/2020	1	N/A	0.136910613	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/16/2020	4/16/2020	1	N/A	0.090176178	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/18/2020	4/18/2020	1	N/A	0.156434488	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/19/2020	4/19/2020	1	N/A	0.072836263	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/21/2020	4/21/2020	1	N/A	0.092199659	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/22/2020	4/22/2020	1	N/A	0.065952065	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/23/2020	4/23/2020	1	N/A	0.036084366	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/23/2020	4/23/2020	1	N/A	0.035512364	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/24/2020	4/24/2020	1	N/A	0.10341587	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/25/2020	4/25/2020	1	N/A	0.05779657	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/26/2020	4/26/2020	1	N/A	0.04243225	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/27/2020	4/27/2020	1	N/A	0.121044641	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/28/2020	4/28/2020	1	N/A	0.121515211	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/28/2020	4/28/2020	1	N/A	0.116384581	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/29/2020	4/29/2020	1	N/A	0.052479531	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/30/2020	4/30/2020	1	N/A	0.085248825	LNG Tank Pressure Release Due to Temperature Fluctuation
1	5/1/2020	5/1/2020	1	N/A	0.08429163	LNG Tank Pressure Release Due to Temperature Fluctuation
1	11/26/2020	11/26/2020	1	N/A	0.04941942	LNG Tank Pressure Release Due to Temperature Fluctuation
1	12/9/2020	12/9/2020	1	N/A	0.046261222	LNG Tank Pressure Release Due to Temperature Fluctuation
1	3/16/2020	3/16/2020	1	N/A	0.054701889	LNG Tank Pressure Release Due to Temperature Fluctuation

1	3/25/2020	3/25/2020	1	N/A	0.062943596	LNG Tank Pressure Release Due to Temperature Fluctuation
1	3/27/2020	3/27/2020	1	N/A	0.050954673	LNG Tank Pressure Release Due to Temperature Fluctuation
1	3/30/2020	3/30/2020	1	N/A	0.084692818	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/2/2020	4/2/2020	1	N/A	0.110661988	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/3/2020	4/3/2020	1	N/A	0.098744202	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/8/2020	4/8/2020	1	N/A	0.06924358	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/12/2020	4/12/2020	1	N/A	0.12071377	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/13/2020	4/13/2020	1	N/A	0.061934976	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/15/2020	4/15/2020	1	N/A	0.072695521	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/16/2020	4/16/2020	1	N/A	0.120619778	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/17/2020	4/17/2020	1	N/A	0.249371513	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/21/2020	4/21/2020	1	N/A	0.289080537	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/22/2020	4/22/2020	1	N/A	0.165538858	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/22/2020	4/22/2020	1	N/A	0.096788572	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/24/2020	4/24/2020	1	N/A	0.078099135	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/24/2020	4/24/2020	1	N/A	0.064370621	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/25/2020	4/25/2020	1	N/A	0.125264675	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/25/2020	4/25/2020	1	N/A	0.043989863	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/26/2020	4/26/2020	1	N/A	0.104485668	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/28/2020	4/28/2020	1	N/A	0.220067075	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/29/2020	4/29/2020	1	N/A	0.122291118	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/29/2020	4/29/2020	1	N/A	0.126349058	LNG Tank Pressure Release Due to Temperature Fluctuation
1	4/30/2020	4/30/2020	1	N/A	0.076651109	LNG Tank Pressure Release Due to Temperature Fluctuation
1	5/2/2020	5/2/2020	1	N/A	0.159348606	LNG Tank Pressure Release Due to Temperature Fluctuation
1	5/2/2020	5/2/2020	1	N/A	0.117148674	LNG Tank Pressure Release Due to Temperature Fluctuation
1	5/3/2020	5/3/2020	1	N/A	0.371142515	LNG Tank Pressure Release Due to Temperature Fluctuation
1	5/4/2020	5/4/2020	1	N/A	0.351062871	LNG Tank Pressure Release Due to Temperature Fluctuation
1	5/5/2020	5/5/2020	1	N/A	0.381743868	LNG Tank Pressure Release Due to Temperature Fluctuation
1	5/6/2020	5/6/2020	1	N/A	0.085817977	LNG Tank Pressure Release Due to Temperature Fluctuation
1	11/24/2020	11/24/2020	1	N/A	0.01995193	LNG Tank Pressure Release Due to Temperature Fluctuation
1	12/2/2020	12/2/2020	1	N/A	0.08924163	LNG Tank Pressure Release Due to Temperature Fluctuation
1	12/3/2020	12/3/2020	1	N/A	0.11059412	LNG Tank Pressure Release Due to Temperature Fluctuation
1	12/8/2020	12/8/2020	1	N/A	0.033523773	LNG Tank Pressure Release Due to Temperature Fluctuation
1	12/9/2020	12/9/2020	1	N/A	0.038444679	LNG Tank Pressure Release Due to Temperature Fluctuation
					6.96	

Appendix 3 - Rev. 03/30/21

Header column "Comment" boxes displayed below for reference.	
Column Heading	Description and Definition of Required Contents (IF not self-explanatory)
Appendix 3 - Rev. 03/30/20	
ID	
Geographic Location	GIS, zip code, or equivalent
Compressor Type	C = centrifugal R = reciprocating
Prime Mover	
Number of Cylinders	
Number of Seals	
Seal Type	W = wet D = dry NA = not applicable
Measurment Frequency	A - Annual Q - Quarterly M - Monthly W - Weekly D - Daily
Emission Factor: Measurement Date - Pressurized Operations	
Operating Mode: Pressurized Operating (hours)	Use these EF columns as well as the columns for the Compressor Measurements noted in Columns R thru AB when they are applicable. If the data is not captured by the operator, then add a note explaining why the applicable measurement data was not recorded or available in the Explanatory Notes / Comments column.
Operating Mode: Pressurized Idle (hours)	
Operating Mode: Depressurized Idle (hours)	
Operating Mode: Offline (Hours)	
Emission Factor: Pressurized Operating (scf/hr)	
Emission Factor: Pressurized Idle (scf/hr)	
Emission Factor: Depressurized Idle (scf/hr)	
Emission Factor: Offline (scf/hr)	If the "Offline" hours are counted, then a measurement of "offline" emissions should be taken to determine whether emissions occur. (We should not assume they are zero.)

The Columns P through AB were added to the template and should be used for the indicated measured compressor emissions, which include Centrifugal compressors in accordance with OGR and your operating practice.

For the 2020 data reporting of compressor vented emissions:
Where more than one measurement was taken during the year (e.g. after a maintenance cycle*, monthly, or quarterly), use the measured EF multiplied by the activity hours that occurred during the

Emission Factor: Pressurized Operating - Rod Packing (scf/hr)	These are new columns for reporting year 2020 of 2019 data. These only apply to operators who during their operations and surveys of compressor stations measure their Compressor Vented Emissions for these components of the compressor. Not all gas operators measure vented emissions and estabish flow rates for	corresponding period. For example, if the compressor measurement was taken quarterly, then the measured EF should be multiplied by the activity hours that occurred in the respective quarter, and the same for more frequent measurments (e.g. monthly, weekly etc.). For each compressor devote one row per measurement period (see example provided). In the case of a single annual measurement EF, then that EF would apply to the activity hours for each respective mode for the entire year (which is consistent with prior year reporting practice). * If a measurement is taken after a maintenance cycle and no other measurements were taken during the remainder of the year, then use this measured EF for the activity hours occurring after the measurement date thru 12/31/xx. The activity hours prior to the maintenance of the compressor from the beginning of the year should use the previously measured EF, even if the EF was measured in the prior year.
Emission Factor: Pressurized Operating - Blowdown Valve (scf/hr)		
Emission Factor: Pressurized Operating - Wet Seal Oil Degassing Vent (scf/hr)		
Emission Factor: Pressurized Operating - Wet Seal (scf/hr)		
Emission Factor: Pressurized Operating - Dry Seal (scf/hr)	CPUC Staff strongly encourage more frequent measurement of the following compressor vented emissions. Compliance minimum is once annually, though Staff suggest the minimum frequency should be quarterly and measured at roughly the same time each quarter (e.g. on or around the component survey given mode of operation). More frequent measurements, e.g. monthly would be better due to the temporal changes in conditions that effect emissions. The more frequent measurements also provide an opportunity to detect worn rod packing or seals, which exacerbate emissions, and with timely awareness of suboptimal operations gas operators have an opportunity for accelerating maintenance to correct worn parts. The following steps for reporting more frequent measurements in 2020 are outlined in the adjacent cell, and should be provided if available.	
Emission Factor: Pressurized Idle - Rod Packing (scf/hr)		
Emission Factor: Pressurized Idle - Blowdown Valve (scf/hr)		
Emission Factor: Pressurized Idle - Wet Seal Oil Degassing Vent (scf/hr)		
Emission Factor: Pressurized Idle - Wet Seal (scf/hr)		
Emission Factor: Pressurized Idle - Dry Seal (scf/hr)		
Emission Factor: Pressurized Idle - Isolation Valve (scf/hr)		
Annual Emissions (Mscf)		
Explanatory Notes / Comments		

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

Component Vented Emissions	
ID	
Geographic Location	GIS, zip code, or equivalent

Device Type	C = connector O = open-ended line M = meter P = pneumatic device PR = pressure relief valve V = valve
Bleed Rate	L = low bleed I = intermittent bleed H = high bleed NA = not applicable
Manufacturer	
Engineering or Manufacturer's based Estimate of Emissions	
Annual Emissions (Mscf)	
Explanatory Notes / Comments	

Compressor & Component Leaks	
ID	
Geographic Location	GIS, zip code, or equivalent
Device Type	C = connector O = open-ended line M = meter P = pneumatic device PR = pressure relief valve V = valve OT = Other
Emission Factor: Mscf/day/dev	From Appendix 9 use the applicable EF, and if necessary convert it to Mscf/day for each device.
Manufacturer	
Discovery Date (MM/DD/YY)	List the actual discovery date. 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.
Repair Date (MM/DD/YY)	Date that the component repair stopped the leak. Any associated blowdowns as a result of the repair should be included in the blowdowns tab.
Prior Survey Date (MM/DD/YY)	Before the discovery date of the leak, there was a "Prior Survey Date" when the compressor station was tested and no leak was found. 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. Note, a facility level survey date is sufficient to establish the prior survey date.

Number of Days Leaking	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.] (Discovery Date – Prior Survey Date)/2 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.* (Repair Date – Discovery Date), unless repair date greater than 12/31/XX then use 12/31/XX) --- Days Leaking = (Repair Date - Discovery Date) + (Discovery Date - Prior Survey Date)/2 +1 * [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.]
Emission Factor (Mscf/day)	
Annual Emissions (Mscf)	
Explanatory Notes / Comments	

Storage Tanks	
Total Number	
Discovery Date (DD/MM/YY)	
Repair Date (DD/MM/YY)	
Number of Days Emitting	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.)
Emission Factor (Mscf/yr)	
Annual Emissions (Mscf)	