SDG&E June 15th, 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
Appendix 8; Rev. 03/31/21

Summary Tables:

System Categories	Emission Source Categories	Fugitive or Vented	For Reference Only: 2015 Baseline Emissions (Mscf)	2019 Total Annual Volume of Leaks & Emissions (Mscf)	2019 Total Annual Count of Leak & Emission Items	2020 Total Annual Volume of Leaks & Emissions (Mscf)	2020 Total Annual Count of Leak & Emission Items	Emission Change for Year Over Year Comparison from 2019 to 2020 (Mscf)	Percentage Change for Year Over Year Comparison from 2019 to 2020	Count Change for Year Over Year Comparison from 2019 to 2020	Percentage Change for Year Over Year Comparison from 2019 to 2020	Emission Change for Year Over Year Comparison from 2015 to 2019 (Mscf)	Percentage Change for Year Over Year Comparison from 2015 to 2019	Explanation for Significant Percentage Change for Year Over Year Comparison from 2018 to 2019
Transmission Pipelines	Pipeline Leaks	Fugitive	87	84	Leak count: 0 Total System Mileage: 221	83	Leak count: 0 Total System Mileage: 218	(1)	(1.4%)	(3)	(1.4%)	-4	(4.8%)	Transmission Pipeline Mileage decreased by 3 miles.
	All Damages	Fugitive	0	0	Number of emission items: 0	0	Number of emission items: 0	-	0.0%	-	0.0%	0	-	
	Blowdowns	Vented	3,426	201	Number of blowdown events: 141	531	Number of blowdown events: 117	330	164.1%		0.0%	-2,895	(84.5%)	Blowdowns emissions are a function of activity level. Blowdown volume varies by activity, depending on the type of work performed. The increase in emissions is due to pipeline integrity projects in 2020
	Component Emissions	Vented	1	0	Number of devices: 0	0	Number of devices: 0	-		-	0.0%	-1	(100.0%)	
	Component Leaks	Fugitive	N/A	0	Number of leaks: 1	0	Number of leaks: 6	-		5	0.0%	-	NA	
	Odorizers	Vented	2	155	Number of units: 25	68	Number of units: 23	(87)	(56.1%)	(2)	0.0%	66	3,300.0%	Odorization varies based on the amount of odorant already in the gas.
Transmission M&R Stations	Station Leaks & Emissions	Fugitive	22,216	24,877	Number of facilities: 16	21,767	Number of facilities: 14	(3,110)	(12.5%)	(2)	0.0%	-449	(2.0%)	The decrease in emissions and numbers of facilities can be attributed to the following: - Overreporting of facilities due to duplicate entries and inconsistent naming conventions in SDG&E's work management system for M&R assets. SDG&E personnel visited each station to verify and update asset information in the work management system as part of the Assets Field Verification work being performed as part of Best Practice 9 - Moving Direct Sales emissions from Appendix 2 (Transmission M&R Stations) to Appendix 6 (MSA Systems) since Direct Sales emissions are accounted for in Appendix 6 (MSA Systems) To allow apples-to-apples comparability, an additional tab was added to Appendix 2 titled "2020 Updated Station Lks" to show the updated 2019 emissions data from Station Leaks and Emissions
	Blowdowns	Vented	31	2	Number of blowdown events: 92	2	Number of blowdown events: 168	0	8.9%		0.0%	-29	(93.0%)	Blowdowns emissions are a function of activity level. Blowdown volume varies by activity, depending on the type of work performed.
Transmission Compressor Stations	Compressor Emissions	Vented	1,262	1,038	Number of compressors: 10	867	Number of compressors: 10	(171)	(16.4%)	-	0.0%	-395	(31.3%)	
	Compressor Leaks	Fugitive	NA	N/A	N/A	N/A	N/A	NA	NA		0.0%	-	NA	
	Blowdowns	Vented	3,956	2,521	Number of blowdown events: 281	1,707	Number of blowdown events: 281	(814)	(32.3%)		0.0%	-2,249	(56.9%)	Blowdowns emissions are a function of activity level. Blowdown volume varies by activity, depending on the type of work performed.
	Component Emissions	Vented	NA	862	Number of devices: 41	401	Number of devices: 19	(461)	(53.5%)		0.0%	Na	NA	The decrease in the number of devices and emissions is due to field verification projects of Compressor Stations Components, resulting in a lower but more accurate components count.
	Component Leaks	Fugitive	1,085	384	Number of leaks: 29	368	Number of leaks: 23	(16)	(4.1%)		0.0%	-717	(66.0%)	
	Storage Tank Leaks & Emissions	Vented	3	18	Number of emission items: 238	7	Number of emission items: 68	(11)	(61.3%)	(170)	0.0%	4	132.0%	SDG&E improved the procedures to maintain the vacuum insulation of the tanks which resulted in decreasing the number of tank pressure releases due to temperature/pressure fluctuation.
Distribution Main & Service Pipelines	Pipeline Leaks	Fugitive	33,730	6,031	Number of known leaks: 678 Estimated number of unknown leaks: 149 Total number of leaks: 827	3,582	Number of known leaks: 626 Estimated number of unknown leaks: 58 Total number of leaks: 687	(2,449)	(40.6%)	(140)	0.0%	-30,148	(89.4%)	In 2020, SDG&E increased Leak Survey cycles on vintage Protected Steel material (installed before 1950) to annual survey cycles
	All Damages	Fugitive	8,894	8,791	Number of damages: 398	9,329	Number of damages: 385	538	6.1%	(13)	0.0%	435	4.9%	Emissions associated with damages vary based on damage severity, damaged asset dimensions, and pipeline pressure
	Blowdowns	Vented	45	1,369	Number of blowdown events: 248	25	Number of blowdown events: 269	(1,344)	(98.2%)	21	0.0%	-20	(44.8%)	Blowdowns emissions are a function of activity level. Blowdown volume varies by activity, depending on the type of work performed. The higher emissions in 2019 was due to Pipeline Safety Enhancement Plan projects.
	Component Emissions	Vented	0	0	0	0	0	-	-		0.0%	0	-	
	Component Leaks	Fugitive	0	0	0	0	0	-	-		0.0%	0	-	
Distribution M&R Stations	Station Leaks & Emissions	Fugitive	80,978		Number of stations:	NA	NA	NA	Na	NA	NA	NA	NA	CPUC approved transitioning to leaker-based emission factors to estimate Distribution M&R Stations Emissions. SDG&E does have the leaker-based data and information for 2020 &2019. Therefore, it is omitting this category from its total emissions and replacing it with the added "Component Leaks Vented " and "Component Leaks Fugitive" as Emission Source Categories on Line 31&32
	All Damages	Fugitive	NA	0	0			-	-		0.0%	-	-	
	Blowdowns	Vented	16	16	Number of blowdowns: 2,630	16	Number of blowdowns: 2,688	0	1.8%	58	0.0%	0	1.8%	
	Component Emissions	Vented	NA	0	Number of emission items: 0	0	Number of emission items: 0	-	-		0.0%	NA	NA	As a result of the CPUC's approval of transitioning to leaker-based emission factors to estimate Distribution M&R Stations Emission as well as transferring Farm Taps' emissions to Appendix 5, SDG&E Added "Components Emissions" row to the summary appendix to demonstrate vented emission of Distribution M&R Stations.
	Component Leaks	Fugitive	NA	305	Number of leaks: 45	269	Number of leaks: 37	(35)			0.0%	-	NA	As a result of the CPUC's approval of transitioning to leaker-based emission factors to estimate Distribution M&R Stations Emission as well as transferring Farm Taps' emissions to Appendix 5, SDG&E Added "Components Leaks" row to the summary appendix to demonstrate fugitive emissions of Distribution M&R Stations To allow apples-to-apples comparability and data availability, the 2019 Data columns have been updated to reflect the approval of transferring Distribution Farm Taps' Emissions from Appendix 2 to Appendix 5. An additional tab was added to Appendix 5 titled "2020 Updated Component Leaks" to show the updated 2019 vented emissions data from Distribution M&R Stations.
Customer Meters	Meter Leaks	Fugitive	126,261	129,326	Number of meters: 894,767	130,298	Number of meters: 901,064	972	0.8%	6,297	0.0%	4,037	3.2%	
	All Damages	Fugitive	NA	1,438	Number of damages: 227	963	Number of damages: 191	(475)	(33.0%)	(36)	0.0%	-	NA'	Emissions associated with damages vary based on damage severity, damaged asset dimensions, and pipeline pressure
	Vented Emissions	Vented	54	53	Number of blowdown events: 53,515	58	Number of blowdown events: 53,767	5	9.4%	252	0.0%	4	7.4%	
Underground Storage	Storage Leaks & Emissions	Fugitive	0					-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Compressor Emissions	Vented	0					-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Compressor Leaks	Fugitive	0					-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Blowdowns	Vented	0					-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Component Emissions	Vented	0					-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Component Leaks	Fugitive	0					-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	

	Dehydrator Vent Emissions	Fugitive	0					-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
Unusual Large Leaks	(Description)							-				-	#DIV/0!	
2		**Total**	**282,047**	**177,471**	NA	**170,342**	NA	(7,129)	-4%	NA	NA	**(111,705.44)**	**(39.6%)**	

Legend

	Corrected/Updated Values, June 2021
	Added Row, June 2021

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System Wide Leak Rate Data

1/1/2020 - 12/31/2020

The highlighted cells show the volumes that are summed together as the throughput for calculating the system wide leak rate.

Gas Storage Facilities:

Average Close of the Month Cushion Gas Storage Inventory (Mscf)	Average Close of the Month Working Gas Storage Inventory (Mscf)	Total Annual Volume of Injections into Storage (Mscf)	Total Annual Volume of Gas Used by the Gas Department (Mscf)	Total Annual Volume of Withdrawals from Storage (Mscf)	Explanatory Notes / Comments
N/A	N/A	N/A	N/A	N/A	

Transmission System:

Total Annual Volume of Gas Used by the Gas Department (Mscf)	Total Annual Volume of Gas Transported to or for Customers* in State (Mscf)	Total Annual Volume of Gas Transported to or for Customers* out of State (Mscf)	Total Annual Volume of Gas Transported to utility-owned or third-party storage fields for injection into storage (Mscf)	Explanatory Notes / Comments
339,893	98,188,454			

Distribution System:

Total Annual Volume of Gas Used by the Gas Department (Mscf)	Total Annual Volume of Gas Transported to or for Customers* in State (Mscf)	Total Annual Volume of Gas Transported to or for Customers* out of State (Mscf)	Explanatory Notes / Comments
73,367	98,163,992		

*The term customers includes anyone that the utility is transporting gas for, including customers who purchase gas from the utility.

Customers can be anyone including residential, businesses, other utilities, gas transportation companies, etc.

[Company Name], [Date Submitted]

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Summary Tables:

Natural Gas Properties	Average Mole Percent	Explanatory Notes / Comments
Methane	94.92%	Rainbow
Carbon Dioxide	0.62%	Rainbow
Ethane	3.75%	Rainbow
C3+	0.16%	Rainbow
C6+	0.00%	Rainbow
Oxygen	0.20%	Estimated to limit, not tested
Hydrogen		Not Tested
Sulfur	0.00%	Estimated to include odorant
Water	0.01%	Estimated to limit, not tested
Carbon Monoxide		Not Tested
Particulate Matter		Not Tested
Inert Gas	1.68%	Rainbow
Odorant	0.00%	Estimated guideline rate