SDG&E

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. and In Response to Data Request SDG&E R15-01-008 2017 June Report 3/31/2017

Appendix 8 Rev. 3/31/17

Pursuant to SB 1371, Leno - Natural gas: leakage abatement, the California Public Utilities Commission (CPUC) requests that the following information be transmitted to the CPUC and the State Air Resources Board (ARB): Note - Definitions in Data Request SDG&E R15-01-008 2017 June Report

The following question in the above mentioned data request is answered using the spreadsheets in this Appendix (#8):

(5) System-wide gas leak rate data, SDG&E R15-01-008 2016 May Report along with any data and computer models used in making that calculation, for the 12 months ending December 31st, of the reporting year.

Response:

Summary Tables:

System Categories	Emission Source Categories	Fugitive or Vented	Total Annual Volume of Leaks & Emissions (Mscf)	Total Annual Count of Leak & Emission Items	Explanatory Notes/Comments
	Pipeline Leaks	Fugitive	84	Leak count: 0 Total System Mileage: 225	
	All Damages	Fugitive	0	Number of emission items: 0	No Damages
Transmission Pipelines	Blowdowns	Vented	3,282	Number of blowdown events: 65	9
	Component Emissions	Vented	0	Number of emission items: 0	No Devices
	Component Leaks	Fugitive	0	Number of leaks: 5	
	Odorizers	Vented	2	Number of units: 4	
	Station Leaks & Emissions	Fugitive		Number of facilities: 35	
T	Blowdowns	Vented	4	Number of blowdowns events: 112	
Transmission M&R Stations	Component Emissions	Vented	21	Number of devices: 6	
	Component Leaks	Fugitive	0	Number of leaks: 4	
	Compressor Emissions	Vented	3,053	Number of compressors: 10	
	Compressor Leaks	Fugitive	0	·	Leaks on compressor piping are reported as "component leaks"
	Blowdowns	Vented	4,299	Number of blowdown events: 212	1 11 0 1
Transmission Compressor Stations	Component Emissions	Vented	910	Number of devices: 44	
	Component Leaks	Fugitive		Number of leaks: 49	
	Storage Tank Leaks & Emissions	Vented	2	Number of events: 37	
	Pipeline Leaks	Fugitive	27,360	Number of known leaks: 534 Estimated number of unknown leaks: 728	This line item includes the estimated emissions from the estimated number of unsurveyed pipeline leaks.
	All Damages	Fugitive	9 239	Number of damages: 450	inamber of ansarreyed pipeline leads.
Distribution Main & Service Pipelines	Blowdowns	Vented	·	Number of blowdown events: 276	Individual event data for Pipeline Abandonment is not available.
	Component Emissions	Vented	0	Number of emission items: 0	No Devices
	Component Leaks	Fugitive	0	Number of emission items: 0	No Leaks
	Station Leaks & Emissions	Fugitive	79,324	Number of stations: 482	
D. 1. 1 A40 D. C	Blowdowns	Vented	22	Number of blowdowns: 2,840	
Distribution M&R Stations	Component Emissions	Vented	0	Number of emission items: 0	No Devices
	Component Leaks	Fugitive	0	Number of leaks: 26	
	Meter Leaks	Fugitive	126,806	Number of meters: 878,093 Number of leaks: 4,230*	*Number of leaks are reported under "Identified MSA Leaks" tab.
Customer Meters	All Damages	Fugitive	807	Number of damages: 58	
	Vented Emissions	Vented		Number of blowdown events: 47,920	
	Storage Leaks & Emissions	Fugitive		Number of emission items: 0	No facilities of this type.
	Compressor Emissions	Vented		Number of emission items: 0	No facilities of this type.
	Compressor Leaks	Fugitive		Number of emission items: 0	No facilities of this type.
Underground Storage	Blowdowns	Vented		Number of emission items: 0	No facilities of this type.
Shacipioana Storage	Component Emissions	Vented		Number of emission items: 0	No facilities of this type.
	Component Leaks	Fugitive		Number of emission items: 0	No facilities of this type.
	Dehydrator Vent Emissions	Fugitive		Number of emission items: 0	No facilities of this type.
Unusual Large Leaks	(Description)	rugitive		Transport of Chilippion Remail o	in admines of and type.

Sum total

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Note - Definitions in Data Request SDG&E R15-01-008 2017 June Report

The following question in the above mentioned data request is answered using the spreadsheets in this Appendix (#8): making that calculation, for the 12 months ending December 31st, of the reporting year.

Response:

System Wide Leak Rate Data

1/1/2016 - 12/31/2016

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 Withdrawals from Storage (Mscf)	Explanatory Notes / Comments
L	N/A	N/A	N/A	N/A	No underground storage

Transmission System:

Total Annual Volume of Gas Used by the Gas Department (Mscf)	of Gas Transported to	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
206,754	107,752,181	0	N/A	

Distribution System:

Total Annual Volume of Gas Used by the Gas Department (Mscf)	of Gas Transported to	Total Annual Volume of Gas Transported to or for Customers* out of State (Mscf)	Evalorator Notas /
47,260	106,956,932	0	

^{*}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.

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Pursuant to SB 1371, Leno - Natural gas: leakage abatement, the California Public Utilities Commission (CPUC) requests that the following information be transmitted to the CPUC and the State Air Resources Board (ARB):

Note - Definitions in Data Request SDG&E R15-01-008 2017 June Report

The following question in the above mentioned data request is answered using the spreadsheets in this Appendix (#8):

(5) The system-wide gas leak rate data, as defined in Data Request SDG&E R15-01-008 2016 May Report along with any data and computer models used in making that calculation, for the 12 months ending December 31st, of the reporting year.

Response:

Summary Tables:

Natural Gas Properties	Average Mole Percent	Explanatory Notes / Comments
Methane	93%	Rainbow
Carbon Dioxide	1%	Rainbow
Ethane	4.5%	Rainbow
C3+	0.4%	Rainbow
C6+	0.00%	Rainbow
Oxygen	0.20%	Estimated up to limit, Not Tested
Hydrogen		Not Tested
Sulfur	0.0002%	Rainbow
Water	0.01%	Estimated to limit
Carbon Monoxide		Not Tested
Particulate Matter		Not Tested
Inert Gas	2.00%	Rainbow
Odorant	0.0001%	Rainbow