

SoCalGas

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 SoCalGas 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 SoCalGas 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, SoCalGas 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
Transmission Pipelines	Pipeline Leaks	Fugitive	1,297	Leak count: 8 Total System Mileage: 3,455	
	All Damages	Fugitive	0	Number of emission items: 0	No Damages
	Blowdowns	Vented	144,486	Number of blowdown events: 167	
	Component Emissions	Vented	7,877	Number of devices: 313	
	Component Leaks	Fugitive	0	Number of leaks: 23	
Transmission M&R Stations	Odorizers	Vented	2,261	Number of units: 245	
	Station Leaks & Emissions	Fugitive	287,561	Number of facilities: 9,409	
	Blowdowns	Vented	266	Number of blowdown events: 2,604	
	Component Emissions	Vented	5,047	Number of devices: 133	
	Component Leaks	Fugitive	0	Number of leaks: 23	
Transmission Compressor Stations	Component Emissions	Vented	32,544	Number of compressors: 39	
	Compressor Leaks	Fugitive	0		Leaks on compressor piping are reported as "component leaks"
	Blowdowns	Vented	11,552	Number of blowdown events: 121	Some line items may include summarized data of multiple blowdown events. Individual event data is not available.
	Component Emissions	Vented	5,079	Number of devices: 243	
	Component Leaks	Fugitive	17,836	Number of leaks: 340	
Distribution Main & Service Pipelines	Storage Tank Leaks & Emissions	Vented	0	Number of emission items: 0	No facilities of this type.
	Pipeline Leaks	Fugitive	838,046	Number of known leaks: 16,580 Estimated number of unknown leaks: 6,423	This line item includes the estimated emissions from the estimated number of unsurveyed pipeline leaks.
	All Damages	Fugitive	71,170	Number of damages: 3,566	
	Blowdowns	Vented	227	Number of blowdown events: 402	Individual event data for Pipeline Abandonment is not available.
	Component Emissions	Vented	0	Number of emission items: 0	No Devices
Distribution M&R Stations	Component Leaks	Fugitive	55	Number of leaks: 10	
	Station Leaks & Emissions	Fugitive	346,308	Number of stations: 1,957	
	Blowdowns	Vented	101	Number of blowdowns: 19,490	Individual event data for Pipeline Abandonment at Reg Station is not available.
	Component Leaks	Fugitive	0	Number of leaks: 584	
Customer Meters	Component Emissions	Vented	0	Number of devices: 68	
	Meter Leaks	Fugitive	851,086	Number of meters: 5,929,463 Number of leaks: 68,034*	*Number of leaks are reported under "Identified MSA Leaks" tab.
	All Damages	Fugitive	14,245	Number of damages: 1,512	
Underground Storage	Vented Emissions	Vented	1,687	Number of blowdown events: 1,486,623	
	Storage Leaks & Emissions	Fugitive	992,744	Number of emission items: 5,157	This line item includes the "Unusual Large Leak" noted below on line #53.
	Compressor Emissions	Vented	19,362	Number of compressors: 37	
	Compressor Leaks	Fugitive	0		Leaks on compressor piping are reported as "component leaks"
	Blowdowns	Vented	6,261	Number of blowdown events: 2,292	Data is aggregated. Number of blowdown events is not available.
	Component Emissions	Vented	5,518	Number of devices: 263	
Unusual Large Leaks	Component Leaks	Fugitive	29,506	Number of leaks: 295	
	Dehydrator Vent Emissions	Fugitive	7,458	Number of facilities: 5	
Unusual Large Leaks	Storage Leaks & Emissions	Case-by-Case	990,000	Number of events: 1	SoCalGas estimated 4.62 Bcf of natural gas emitted from the SS-25 well using a mass balance inventory verification method. For purposes of this report, SoCalGas has used tracer flux ratio and flight mass balance data to calculate daily emission rates from SS-25 from October 23, 2015, when the leak was discovered, through February 11, 2016, when the leak ended. Using the estimated daily flow rates from SS-25, SoCalGas apportioned the quantity of gas leaked in 2016 at 21.4% of the total volume of natural gas emitted from this event (0.99 Bcf NG).

Sum total **3,699,580**

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Note - Definitions in Data Request SoCalGas 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, SoCalGas R15-01-008 2017 June 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:

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
141,087,404	59,832,977	31,606,235	60,318,552	Total annual volume of Gas Used by the Gas Department for Storage Facilities is: 691,345 Mscf

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
1,200,591	868,009,476	17,907,510	31,606,235	

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
108,581	764,275,738	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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Note - Definitions in Data Request SoCalGas 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 SoCalGas 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	95%	Interstate supplies
Carbon Dioxide	1.0%	Interstate supplies
Ethane	3.2%	Interstate supplies
C3+	0.3%	Interstate supplies
C6+	0.01%	Interstate supplies
Oxygen	0.2%	Estimated to limit, Not Tested at all locations
Hydrogen		Not Tested
Sulfur	0.0002%	Estimated to include odorant
Water	0.01%	Estimated to limit
Carbon Monoxide		Not Tested
Particulate Matter		Not Tested
Inert Gas	1.7%	Interstate supplies
Odorant	0.0002%	Estimated guideline rate