

SD&GE, July 14, 2024

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, Lens.
In Response to Data Request, R15-01-008, 2023 June Report
Appendix 4, Rev. 03/29/2024

Notes:
Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste value.
At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight range.
If all of the status and services are not covered annually, use the tab "Unmonitored Pipeline Leaks" to estimate emissions.
Do not record above ground MSA leaks on this tab. Use Appendix 4 instead. Do continue to list above ground leaks associated with the Distribution Main & Services pipeline system.
After completing the tab "Pipeline Leaks" and "Unmonitored Pipeline Leaks," fill in the table for "Pipeline Leak Summary."

Sum Total Emissions from leaks carried over from before 2023	2
Sum Total Emissions from Survey leaks discovered in 2023	6,740
Sum Total Emissions from CMM Leaks discovered in 2023	96
Grand Total of all 2023 emissions from leaks	6,798

Note: No change to CMM leak duration for this reporting year.

Distribution Main & Service Pipeline Leaks:

ID	Geographic Location	Pipe Classification	Pipe Material	Pipe Size (Inches)	Pipe Age (Months)	Pressure (PSI)	Leak Grade	Upgraded Leak Grade or Downgraded Leak Grade	Above Ground or Below Ground	Leak Discovery Method	Discovery Date (MM/DD/YYYY)	Re-Grade Date (MM/DD/YYYY)	Repair Date (MM/DD/YYYY)	Scheduled Repair Date (MM/DD/YYYY)	Reason for Not Scheduling a Repair	Number of Days Leaking	Number of Days to Repair	Emission Factor (Mscf/Day)	Annual Emissions (Mscf)	Explanatory Notes / Comments
2102067	02104	DR	PC	3/4"	805	Less than or equal to 60	2	B	S	2/26/2023			2/15/2023			46	35	0.1154	5.3	
2113314	01942	DR	PC	3/4"	899	Less than or equal to 60	2	B	S	6/26/2023			7/18/2023			209	23	0.1154	23.0	
2102024	02104	DR	PC	3/4"	779	Less than or equal to 60	2	B	S	2/26/2023			2/15/2023			46	30	0.1154	3.5	
2104139	02009	DR	P	1 1/4"	527	Less than or equal to 60	1	B	M	2/26/2023			2/26/2023			1	1	0.1154	0.1	
2100304	02104	DR	PC	3/4"	767	Less than or equal to 60	2	B	S	5/6/2023			5/12/2023			11	7	0.1154	0.7	
2113330	02069	DR	P	1/2" PS	419	Less than or equal to 60	1	B	S	7/26/2023			7/26/2023			207	1	0.1154	23.9	
2103360	02111	MR	P	1 1/4"	563	Less than or equal to 60	2	B	S	11/16/2023			11/16/2023			114	5	0.1154	26.2	
2111746	02105	DR	PC	3/4"	809	Less than or equal to 60	2	B	S	6/6/2023			7/12/2023			180	36	0.1154	22.2	
2103622	01945	MR	PC	2"	755	Less than or equal to 60	2	B	S	5/23/2023			6/3/2023			144	23	0.1154	18.9	
2109069	02128	MR	P	1 1/4"	537	Less than or equal to 60	2	B	S	5/10/2023			5/10/2023			138	7	0.1154	15.7	
2103777	02019	DR	PC	3/4"	815	Less than or equal to 60	2	B	S	8/13/2023			8/13/2023			236	30	0.1154	29.5	
2107042	02104	MR	P	2"	587	Less than or equal to 60	2	B	S	4/7/2023			5/2/2023			135	39	0.1154	13.6	
2104220	02037	MR	PC	1 1/2"	767	Less than or equal to 60	2	B	S	7/19/2023			8/2/2023			214	24	0.1154	24.7	
2109013	02104	MR	PC	2"	557	Less than or equal to 60	2	B	S	5/12/2023			5/12/2023			138	18	0.1154	15.8	
2106771	02025	MR	PC	4"	1043	Less than or equal to 60	2	B	S	4/9/2023			4/20/2023			111	17	0.1154	12.8	
2104055	01945	MR	PC	1 1/2"	851	Less than or equal to 60	1	B	M	2/15/2023			2/15/2023			1	1	0.1154	0.1	
2104480	02020	DR	P	1/2" PS	375	Less than or equal to 60	2	B	S	7/18/2023			8/2/2023			213	15	0.1154	24.6	
2103267	01950	DR	PC	3/4"	767	Less than or equal to 60	2	B	S	11/7/2023			11/7/2023			11	1	0.1154	0.9	
2100318	02124	DR	P	1/2" CTS	635	Less than or equal to 60	1	B	M	12/22/2023			12/22/2023			1	1	0.1154	0.1	
2107260	02022	DR	P	1/2" PS	375	Less than or equal to 60	1	B	M	11/20/2023			11/20/2023			1	1	0.1154	0.3	
2106321	02111	DR	PC	3/4"	851	Less than or equal to 60	2	B	S	3/29/2023			4/24/2023			124	27	0.1154	13.2	
2104948	02104	MR	PC	3/4"	755	Less than or equal to 60	2	B	S	5/8/2023			5/8/2023			115	15	0.1154	14.8	
2101032	01945	MR	PC	2"	823	Less than or equal to 60	2	B	S	5/15/2023			6/19/2023			147	33	0.1154	19.3	
2108284	02111	DR	PC	1"	663	Less than or equal to 60	2	B	S	12/18/2023			12/18/2023			353	1	0.1154	40.7	
2103035	01977	DR	PC	3/4"	658	Less than or equal to 60	2	B	S	5/16/2023			5/17/2023			137	1	0.1154	1.8	
2100319	02115	DR	PC	3/4"	923	Less than or equal to 60	2	B	M	1/31/2023			1/31/2023			1	1	0.1154	0.3	
2100384	02109	DR	PC	3/4"	755	Less than or equal to 60	2	B	S	2/16/2023			3/8/2023			87	2	0.1154	7.7	
2103915	01941	DR	PC	3/4"	747	Less than or equal to 60	2	B	S	9/23/2023			10/2/2023			275	11	0.1154	11.7	
2114883	02104	MR	PC	3/4"	551	Less than or equal to 60	1	B	S	7/19/2023			7/19/2023			200	1	0.1154	1.1	
2113166	01977	DR	PC	3/4"	779	Less than or equal to 60	2	B	S	6/29/2023			7/17/2023			198	25	0.1154	22.8	
2118416	02104	MR	PC	1 1/2"	755	Less than or equal to 60	2	B	S	9/7/2023			9/7/2023			26	26	0.1154	10.0	
2107504	02011	MR	P	3"	587	Less than or equal to 60	1	B	S	4/12/2023			4/12/2023			1	1	0.1154	11.8	
2103546	02130	MR	PC	2"	803	Less than or equal to 60	2	B	S	9/22/2023			9/22/2023			205	1	0.1154	30.8	
2100302	01945	DR	P	1 1/2"	791	Less than or equal to 60	2	B	S	3/30/2023			3/30/2023			1	1	0.1154	0.1	
2113090	01941	DR	P	1/2" CTS	589	Less than or equal to 60	2	B	S	6/2/2023			7/5/2023			186	14	0.1154	21.5	
2103861	02021	MR	PC	4"	805	Less than or equal to 60	2	B	S	8/6/2023			8/6/2023			148	14	0.1154	14.8	
2110860	02111	DR	PC	1"	1019	Less than or equal to 60	2	B	S	5/24/2023			5/24/2023			145	2	0.1154	16.7	
2122371	02071	MR	PC	2"	761	Less than or equal to 60	2	B	S	2/16/2023			2/16/2023			112	24	0.1154	12.2	
2112360	02114	MR	PC	1 1/2"	811	Less than or equal to 60	2	B	S	5/9/2023			6/20/2023			173	23	0.1154	20.0	
2107577	02205	DR	PC	3/4"	767	Less than or equal to 60	2	B	S	4/13/2023			4/24/2023			134	12	0.1154	12.2	
2102784	02124	DR	P	1 1/4"	576	Less than or equal to 60	2	B	S	2/7/2023			2/7/2023			1	1	0.1154	0.4	
2104005	02071	DR	PC	3/4"	767	Less than or equal to 60	1	B	S	11/16/2023			11/16/2023			100	1	0.1154	36.9	
2115451	02019	DR	PC	3/4"	779	Less than or equal to 60	2	B	S	1/22/2023			8/18/2023			280	2	0.1154	20.5	
2108254	01910	DR	PC	3/4"	779	Less than or equal to 60	2	B	S	12/13/2023			12/13/2023			347	1	0.1154	40.0	
2103329	02111	DR	PC	3/4"	1067	Less than or equal to 60	1	B	M	1/31/2023			1/31/2023			1	1	0.1154	1	
2107096	02114	DR	PC	3/4"	875	Less than or equal to 60	2	B	S	4/9/2023			4/9/2023			135	17	0.1154	13.3	
2116153	02104	MR	PC	3/4"	779	Less than or equal to 60	2	B	S	8/6/2023			8/6/2023			236	17	0.1154	27.2	
2104545	02128	DR	P	1/2" PS	611	Less than or equal to 60	2	B	M	8/11/2023			8/20/2023			19	19	0.1154	7.2	
2103057	01977	DR	PC	3/4"	647	Less than or equal to 60	2	B	S	5/18/2023			6/3/2023			144	27	0.1154	18.9	
2107042	02011	MR	P	2"	563	Less than or equal to 60	2	B	S	4/13/2023			4/13/2023			107	1	0.1154	12.8	
2107321	02024	DR	P	1 1/4"	599	Less than or equal to 60	2	B	S	4/10/2023			4/17/2023			107	8	0.1154	12.3	
2117602	02104	DR	P	1/2" CTS	623	Less than or equal to 60	1	B	S	8/7/2023			8/7/2023			1	1	0.1154	0.1	
2113062	01942	DR	P	1/2" CTS	565	Less than or equal to 60	2	B	S	9/18/2023			9/28/2023			275	11	0.1154	11.3	
2113413	02064	MR	PC	3/4"	551	Greater than 60	1	B	S	4/14/2023			4/14/2023			146	2	0.1154	16.6	
2106248	02103	DR	PC	3/4"	755	Less than or equal to 60	1	B	S	3/28/2023			3/28/2023			87	1	0.1154	10.0	
2103975	02109	MR	PC	3/4"	551	Less than or equal to 60	2	B	S	2/8/2023			2/8/2023			47	5	0.1154	5.4	
2106151	01950	DR	PC	3/4"	551	Less than or equal to 60	2	B	M	3/20/2023			3/20/2023			1	1	0.1154	0.1	
2118828	02037	DR	PC	3/4"	42	Less than or equal to 60	2	B	S	9/14/2023			9/22/2023			205	9	0.1154	30.8	
2108466	02115	MR	PC	3/4"	923	Less than or equal to 60	2	B	S	4/29/2023			4/29/2023			1	1	0.1154	0.1	
2103287	01950	MR	PC	1 1/2"	743	Less than or equal to 60	2	B	S	9/29/2023			9/29/2023			280	8	0.1154	13.0	
2101280	02017	MR	PC	2"	627	Less than or equal to 60	2	B	M	1/26/2023			1/26/2023			2	2	0.1154	0.2	
2103845	01901	DR	P	3"	587	Less than or equal to 60	2	B	S	11/14/2023			11/17/2023			321	4	0.1154	17.0	
2117353	02054	MR	PC	3/4"	823	Less than or equal to 60	2	B	S	12/19/2023			12/19/2023			880	1	0.1154		

2012157	0211	DR	PC	3/4"	323	Less than or equal to 60	2	R	S	10/12/2023	10/12/2023	285	1	0.1534	12.9
2012766	0210	DR	3/4"	9	Less than or equal to 60	1	R	S	4/5/2023	4/5/2023	90	1	0.1534	11.0	
2012749	0210	DR	P	1/2"	81	Less than or equal to 60	2	R	M	10/26/2023	10/26/2023	7	7	0.1534	0.8
2012959	0200	DR	PC	3/4"	695	Less than or equal to 60	2	R	S	6/21/2023	6/21/2023	220	59	0.1534	28.4
2010311	0197	DR	PC	3/4"	815	Less than or equal to 60	2	R	S	5/17/2023	5/17/2023	17	0.1534	18.4	
2014720	0201	DR	PC	3/4"	791	Less than or equal to 60	2	R	S	7/17/2023	8/2/2023	215	18	0.1534	24.8
2013121	0191	DR	P	1/2"	823	Less than or equal to 60	1	M	S	12/22/2023	12/22/2023	1	1	0.1534	0.1
2009108	0200	DR	PC	3/4"	827	Less than or equal to 60	1	R	S	5/3/2023	5/3/2023	123	1	0.1534	14.2
2006705	0108	MR	P	1/4"	175	Less than or equal to 60	1	R	S	4/6/2023	4/6/2023	95	1	0.1534	11.0
2010320	0114	DR	PC	3/4"	795	Less than or equal to 60	1	R	S	5/17/2023	5/17/2023	137	1	0.1534	15.8
2010716	0114	MR	P	1/2"	955	Less than or equal to 60	1	R	S	6/29/2023	6/29/2023	186	186	0.1534	18.5
2006779	0113	DR	PC	3/4"	779	Less than or equal to 60	1	R	M	12/19/2023	12/19/2023	1	1	0.1534	0.1
2008751	0113	DR	PC	3/4"	827	Less than or equal to 60	1	R	S	12/18/2023	12/18/2023	152	1	0.1534	46.8
2008132	0184	MR	P	1/2"	923	Less than or equal to 60	1	R	S	17/12/2023	17/12/2023	2	2	0.1534	0.2
2014500	0078	DR	PC	3/4"	109	Less than or equal to 60	1	R	M	12/4/2023	12/4/2023	1	1	0.1534	0.1
2004761	0101	DR	PC	3/4"	923	Less than or equal to 60	1	R	S	3/7/2023	3/7/2023	28	1	0.1534	10.7
2000008	0273	DR	PC	3/4"	743	Less than or equal to 60	2	R	S	2/25/2023	5/4/2023	134	41	0.1534	14.7
2005777	0014	MR	P	1/4"	139	Less than or equal to 60	1	M	S	3/22/2023	3/22/2023	1	1	0.1534	0.1
2012784	0071	DR	PC	3/4"	823	Less than or equal to 60	2	R	S	11/14/2023	11/14/2023	138	1	0.1534	36.7
2009017	0059	DR	P	1/2"	443	Less than or equal to 60	2	R	M	5/2/2023	5/2/2023	144	29	0.1534	16.6
2006386	0207	DR	PC	3/4"	10	Less than or equal to 60	1	R	M	2/6/2023	2/6/2023	1	1	0.1534	0.1
2013312	0202	DR	PC	3/4"	7	Less than or equal to 60	1	R	S	6/26/2023	6/26/2023	177	1	0.1534	20.4
2017770	0224	MR	P	2"	5	Less than or equal to 60	1	R	S	6/29/2023	6/29/2023	22	0.1534	18.2	
2004541	0208	DR	PC	3/4"	947	Less than or equal to 60	1	R	S	5/31/2023	3/1/2024	90	1	0.1534	20.4
2013208	0077	MR	P	1/2"	608	Less than or equal to 60	2	R	S	6/28/2023	7/2/2023	182	4	0.1534	21.0
2005150	0002	DR	PC	3/4"	731	Less than or equal to 60	1	R	S	3/10/2023	3/10/2023	69	1	0.1534	8.0
2002177	0111	DR	P	1/4"	139	Less than or equal to 60	1	R	S	1/2/2023	1/2/2023	1	1	0.1534	0.6
2015649	0201	DR	PC	3/4"	767	Less than or equal to 60	2	R	S	7/18/2023	8/2/2023	235	24	0.1534	27.1
2008100	0207	DR	PC	3/4"	855	Less than or equal to 60	2	R	S	3/2/2023	3/2/2023	49	52	0.1534	40.0
2014178	0066	MR	P	1/4"	138	Less than or equal to 60	2	R	S	7/10/2023	7/10/2023	3	3	0.1534	0.3
2004804	0115	DR	PC	3/4"	875	Less than or equal to 60	1	R	M	3/4/2023	3/4/2023	1	1	0.1534	0.1
2013361	0101	DR	PC	3/4"	887	Less than or equal to 60	2	R	S	11/8/2023	11/8/2023	103	9	0.1534	38.9
2007475	0102	MR	PC	2"	1139	Less than or equal to 60	2	R	S	4/13/2023	4/7/2023	117	16	0.1534	13.5
2016306	0019	DR	PC	3/4"	683	Less than or equal to 60	2	R	S	11/8/2023	11/8/2023	138	1	0.1534	2.0
2017255	0113	DR	PC	3/4"	995	Less than or equal to 60	2	R	S	12/28/2023	12/18/2023	362	1	0.1534	41.8
2006764	0114	DR	P	1/2"	111	Less than or equal to 60	2	R	S	4/29/2023	4/29/2023	21	1	0.1534	12.5
2014480	0040	DR	PC	3/4"	435	Less than or equal to 60	1	R	S	11/22/2023	11/22/2023	126	1	0.1534	37.6
2015562	0105	MR	PC	1/2"	295	Less than or equal to 60	2	R	S	12/5/2023	12/5/2023	139	1	0.1534	39.1
2013226	0105	DR	PC	3/4"	118	Less than or equal to 60	2	R	S	6/24/2023	6/24/2023	175	1	0.1534	17.5
2000504	0207	DR	PC	3/4"	803	Less than or equal to 60	1	R	S	3/7/2023	3/7/2023	86	1	0.1534	8.9
2007079	0114	DR	PC	3/4"	803	Less than or equal to 60	2	R	S	5/23/2023	5/23/2023	145	1	0.1534	14.5
2012490	0210	MR	P	1/4"	512	Less than or equal to 60	1	R	M	9/22/2023	9/22/2023	1	1	0.1534	0.1
2014471	0201	DR	PC	3/4"	875	Less than or equal to 60	2	R	S	7/13/2023	6/29/2023	247	2	0.1534	27.8
2006612	0101	DR	PC	3/4"	959	Less than or equal to 60	2	R	S	5/18/2023	5/18/2023	123	47	0.1534	14.2
2004622	0059	DR	P	1/2"	95	Less than or equal to 60	1	R	S	11/27/2023	11/27/2023	351	1	0.1534	38.2
2018923	0117	DR	P	1/2"	115	Less than or equal to 60	1	R	S	9/14/2023	9/14/2023	1	1	0.1534	0.1
2012397	0114	MR	PC	1/2"	1168	Less than or equal to 60	2	R	S	6/14/2023	6/14/2023	167	3	0.1534	19.3
2012185	0207	DR	PC	3/4"	659	Less than or equal to 60	1	R	S	6/12/2023	6/12/2023	184	1	0.1534	18.4
2002876	0101	MR	PC	1/2"	827	Less than or equal to 60	1	R	S	2/8/2023	2/8/2023	39	1	0.1534	4.5
2013876	0207	DR	PC	3/4"	471	Less than or equal to 60	2	R	S	6/29/2023	7/15/2023	18	1	0.1534	22.1
2004415	0016	MR	P	2"	1	Less than or equal to 60	1	R	S	1/2/2023	1/2/2023	3	1	0.1534	7.0
2013995	0016	MR	P	1/4"	23	Less than or equal to 60	2	R	M	6/29/2023	6/29/2023	3	3	0.1534	0.2
2006548	0103	DR	PC	3/4"	755	Less than or equal to 60	2	R	S	4/19/2023	5/2/2023	122	30	0.1534	14.1
2008100	0206	DR	PC	3/4"	823	Less than or equal to 60	2	R	S	2/10/2023	2/10/2023	46	6	0.1534	5.3
2010462	0114	MR	P	1/2"	1152	Less than or equal to 60	2	R	S	10/11/2023	10/11/2023	146	1	0.1534	46.1
2012527	0104	DR	PC	1"	45	Less than or equal to 60	2	R	M	12/1/2023	12/8/2023	6	6	0.1534	0.7
2010861	0194	DR	PC	3/4"	719	Less than or equal to 60	2	R	S	7/25/2023	7/25/2023	47	1	0.1534	22.0
2009540	0204	DR	PC	1"	955	Less than or equal to 60	1	R	S	5/9/2023	5/2/2023	142	14	0.1534	16.4
2004662	0111	DR	P	1/4"	47	Less than or equal to 60	1	M	S	10/6/2023	10/6/2023	1	1	0.1534	0.1
2015455	0207	DR	PC	3/4"	719	Less than or equal to 60	1	R	M	12/4/2023	12/4/2023	1	1	0.1534	0.1
2014049	0205	DR	PC	3/4"	584	Less than or equal to 60	2	R	S	7/8/2023	7/8/2023	236	1	0.1534	21.0
2012413	0071	MR	PC	1/2"	367	Greater than 60	1	R	S	6/14/2023	6/14/2023	166	2	0.1534	19.2
2015339	0208	MR	PC	1"	791	Greater than 60	2	R	S	6/2/2023	6/2/2023	166	14	0.1534	19.2
2008705	0066	MR	P	1/4"	551	Less than or equal to 60	2	R	S	2/19/2023	2/19/2023	1	1	0.1534	0.1
2009359	0154	DR	P	1/4"	467	Less than or equal to 60	1	R	S	3/14/2023	3/14/2023	73	1	0.1534	8.4
2013146	0118	DR	P	1/2"	76	Less than or equal to 60	1	M	S	10/20/2023	10/20/2023	1	1	0.1534	0.1
2010086	0204	DR	PC	3/4"	1067	Less than or equal to 60	1	R	S	5/1/2023	5/1/2023	135	1	0.1534	15.6
2009911	0204	MR	PC	3/4"	115	Less than or equal to 60	2	R	S	6/13/2023	6/13/2023	156	1	0.1534	16.6
2014076	0203	DR	PC	3/4"	863	Less than or equal to 60	2	R	S	7/6/2023	8/2/2023	214	28	0.1534	24.7
2010541	0101	MR	PC	2"	913	Less than or equal to 60	2	R	S	6/2/2023	6/2/2023	156	17	0.1534	18.6
2008785	0126	MR	P	2"	479	Less than or equal to 60	1	R	S	3/7/2023	3/7/2023	38	1	0.1534	4.4
2013761	0113	DR	PC	3/4"	875	Less than or equal to 60	1	R	S	11/13/2023	11/13/2023	137	1	0.1534	36.8
2012111	0040	DR	PC	3/4"	623	Less than or equal to 60	2	R	S	11/8/2023	11/8/2023	118	1	0.1534	19.8
2013175	0208	DR	PC	3/4"	823	Less than or equal to 60	2	R	M	6/6/2023	6/6/2023	2	2	0.1534	0.2
2008066	0101	MR	PC	3/4"	171	Less than or equal to 60	2	R	S	4/13/2023	4/13/2023	131	34	0.1534	11.7
2016328	0204	MR	PC	1/2"	623	Less than or equal to 60	2	R	S	8/9/2023	8/9/2023	222	2	0.1534	25.6
2015479	0056	DR	P	1/2"	812	Less than or equal to 60	1	R	S	8/12/2023	8/12/2023	123	1	0.1534	12.7
2009441	0202	MR	P	2"	563	Less than or equal to 60	1	R	M	1/7/2023	1/7/2023	1	1	0.1534	0.1
2012058	0115	MR	PC	1/2"	100	Less than or equal to 60	2	R	S	8/9/2023	11/1/2023	117	158	0.1534	38.8
2012136	0211	MR	P	2"	551	Less than or equal to 60	2	R	S	2/12/2023	2/12/2023	2	2	0.1534	0.2
2012850	0208	MR	P	1/4"	555	Less than or equal to 60	2	R	S	10/21/2023	10/19/2023	303	10	0.1534	15.0
2006613	0194	DR	PC	3/4"	827	Less than or equal to 60	2	R	M	3/7/2023	3/7/2023	11	87	0.1534	1.1
2006284	0113	MR	P	2"	555	Less than or equal to 60	2	R	S	4/26/2023	4/26/2023	126	29	0.1534	13.4
2010471	0130	DR	PC	3/4"	763	Less than or equal to 60	2	R	S	10/22/2023	10/22/2023	1	1	0.1534	0.1
2016272	0206	MR	P	2"	823	Less than or equal to 60	2	R	S	8/9/2023	9/8/2023	251	31	0.1534	29.0
2008398	0115	DR	PC	3/4"	959	Less than or equal to 60	2	R	S	4/24/2023	4/24/2023	130	1	0.1534	15.0
2012854	0197	DR	PC	3/4"	755	Less than or equal to 60									

Exam Total	8.75
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SDG&E, July 1st, 2024

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, 2024 June Report

Appendix 4: Rev. 03/29/2024

Notes:

Definitions in Data Request R15-01-008, 2024 June Report

If highlighted cells are filled in, the other cells will auto-populate

The number of miles surveyed (Column C) should be the number of unique miles surveyed, and should not include any repeated miles surveyed multiple times per year.

To clarify the definition of O&M Leaks (Column O), the following criteria for O&M Leaks should be met: (1) occur stochastically across the whole territory, (2) are reported by customers, (3) found quickly after occurring, (4) found independently of survey activities but would have been found later by surveyors, and (5) considered a small number of leaks.

To clarify the definition of Survey Leaks (Column C), the following criteria for Survey Leaks should be met: (1) found from company employees or contractors actively searching for leaks (2) including, but not limited to, compliance survey leaks and non-compliance survey leaks (e.g. Super Emitter Programs, Aerial Methane Mapping, Corrosion Surveying.)

Summary of Data by Pipeline Facility/Material and Results for Annual System Leak Rate and Resulting Number of Unknown Leaks for Each Pipeline Facility/Material

Facility/Material	Total System Miles per material type	Miles on Annual Survey [M _{SA}]	Miles on Multi-Year Survey Cycles [M _{MC}]	Survey Interval (yrs) [I]	Miles Surveyed Annually from Multi- Year Survey Cycles [M _{SL}]	Total # of Leaks Detected from Survey [N _{SL}]	If using a 3-year trailing leak rate average then include - 2021 Annual Leak Rate [R _{SL}]	If using a 3-year trailing leak rate average then include - 2022 Annual Leak Rate [R _{SL}]	2023 Annual Leak Rate [R _{SL}]	$R_{SL} = \frac{N_{SL}}{M_{SL} + (I \times M_{SL})}$	If applicable, then calculate the 3- year Average Leak Rate [Leaks / Mile / Yr] $R_x = \frac{1}{3} \sum_{i=1}^3 R_{SL}$	# of Unknown Leaks $N_{SL,unk} = R_x \times (M_{SL}^{ave} -$ $M_{SL}) \times \frac{I}{2}$	Total # of Leaks Detected from O&M* [N _{SL,O}]
Main/Vintage* Plastic	1,475	1,475	-	1	0	46	0.0257	0.0287	NA	0.03120	0.02855	-	27
Main/Plastic	NA	NA	NA	3	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Main/Plastic	NA	NA	NA	4	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Main/Plastic	3,278	1,036	2,242	3	747	5	0.0003	0.0019	NA	0.00153	0.00124	2.77	2
Main/Unprotected Steel	NA	NA	NA	3	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Main/Unprotected Steel	NA	NA	NA	4	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Main/Unprotected Steel	NA	NA	NA	5	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Main/Vintage* Protected Steel	442	442	-	1	0	43	0.1139	0.0870	NA	0.09729	0.09939	-	6
Main/Protected Steel	NA	NA	NA	3	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Main/Protected Steel	NA	NA	NA	4	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Main/Protected Steel	3,118	1,096	2,022	3	674	75	0.0129	0.0265	NA	0.02405	0.02118	42.83	27
Main/Unknown	NA	NA	NA	1	NA	NA	NA	0.0184	0.0313	NA	0.02821	-	14
Service/Vintage* Plastic	1,230	1,230	-	1	0	43	0.0184	0.0313	NA	0.03496	0.02821	-	14
Service/Plastic	NA	NA	NA	3	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Service/Plastic	NA	NA	NA	4	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Service/Plastic	3,078	868	2,210	3	737	9	0.0023	0.0026	NA	0.00292	0.00264	5.83	12
Service/Unprotected Steel	NA	NA	NA	3	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Service/Unprotected Steel	NA	NA	NA	4	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Service/Unprotected Steel	NA	NA	NA	5	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Service/Vintage* Protected Steel	277	277	-	1	0	49	0.2181	0.1517	NA	0.17690	0.18225	-	11
Service/Protected Steel	NA	NA	NA	3	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Service/Protected Steel	NA	NA	NA	4	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Service/Protected Steel	2,529	1,089	1,439	3	480	148	0.0471	0.0789	NA	0.05853	0.06149	88.50	60
Service/Copper	NA	NA	NA	3	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Service/Copper	NA	NA	NA	4	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Service/Unknown	NA	NA	NA	5	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Service/Copper	NA	NA	NA	NA	NA	NA	N/A	NA	NA	NA	NA	NA	NA
Total	15,426	7,513	7,913	N/A	2,638	418	N/A	NA	NA	NA	N/A	140	159

*Definitions for "Vintage" materials:

Vintage Plastic Pipe installed before 1986 + "unknown" manufacture PE pipe

Vintage Protected Steel Pipe Installed before 1950

Estimated Emissions by Pipeline Facility/Material for Each Leakage Category

Leakage Category	Emission Factor (Mscf/day/leak)	2023 Emissions from Leaks detected Prior to 2023 (Mscf)	2023 Emissions from Leaks Detected from 2023 Survey (Mscf)	2023 Emissions from O&M* Leaks Detected in 2023 (Mscf)	2023 Estimated Emissions from Unknown Leaks (Mscf)	Total Estimated 2023 Emissions from Distribution Pipelines (Mscf)
Facility/Material						
Main/Vintage* Plastic	0.1154	0	1,008	6	0	1,014
Main/Plastic	0.1154	NA	NA	NA	NA	NA
Main/Plastic	0.1154	NA	NA	NA	NA	NA
Main/Plastic	0.1154	0	64	1	117	183
Main/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Main/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Main/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Main/Vintage* Protected Steel	0.1154	0	872	7	0	879
Main/Protected Steel	0.1154	0	1,814	28	1,804	3,646
Main/Protected Steel	0.1154	NA	NA	NA	NA	NA
Main/Protected Steel	0.1154	NA	NA	NA	NA	NA
Main/Unknown	0.1154	NA	NA	NA	NA	NA
Service/Vintage* Plastic	0.1154	0	836	6	0	842
Service/Plastic	0.1154	NA	NA	NA	NA	NA
Service/Plastic	0.1154	NA	NA	NA	NA	NA
Service/Plastic	0.1154	0	155	5	246	406
Service/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Service/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Service/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Service/Vintage* Protected Steel	0.1154	2	955	7	0	964
Service/Protected Steel	0.1154	NA	NA	NA	NA	NA
Service/Protected Steel	0.1154	NA	NA	NA	NA	NA
Service/Protected Steel	0.1154	0	2,996	37	3,727	6,760
Service/Copper	0.1154	NA	NA	NA	NA	NA
Service/Copper	0.1154	NA	NA	NA	NA	NA
Service/Copper	0.1154	NA	NA	NA	NA	NA
Service/Unknown	0.1154	NA	NA	NA	NA	NA
Total	N/A	2	8,700	96	5,893	14,691

O&M leaks include any other pipeline leaks that are discovered during the year from operations and maintenance activity, third party and gas odor reports, etc. that are not accounted for in other categories of this worksheet.

The cells below should be used for calculating emissions when a risk based leak detection and repair practice is used by the Utility. This table is intended to help categorize emissions associated with large leaks (Super Emitters (SEs)), and non-large leaks (non-SEs).

	2023 Emissions from Leaks detected Prior to 2023 (Mscf)	2023 Emissions from Leaks Detected from 2023 Survey (Mscf)	2023 Emissions from O&M* Leaks Detected in 2023 (Mscf)	2023 Estimated Emissions from Unknown Leaks (Mscf)	Total Estimated 2023 Emissions from Distribution Pipelines (Mscf)

Large Leak Emitter Program					
Compliance Leak Survey - Non-LL					-
Compliance Leak Survey - LL					-
Large Leak Emitter Program Outside Compliance Area - Non-LL					-
Large Leak Emitter Program Outside Compliance Area - LL					-
O&M - Non-LL					-
O&M - LL					-
TOTAL	-	-	-	-	-

Please Provide the following:	Total Count
The portion of the survey mileage that includes mileage that is surveyed multiple times per year. Repeated mileage will not be accounted for in the unknown leak calculation.	0

SDG&E, July 1st, 2024

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, 2024 June Report

Appendix 4; Rev. 03/29/2024

This summary purposefully should exclude damages, blowdowns, component emissions and component leaks.

	Count of Leaks Carried over from Prior Year	Count of Leaks Discovered in the Year of Interest	Count of Leaks Repaired in the Year of Interest	Average Days to Repair Leaks	Count of Estimated Unsurveyed Leaks in the Year of Interest	Count of Remaining Leaks at final day of the Year of Interest (12/31/23)	Emissions from Leaks Carried over from Prior Year.	Emissions from Leaks Discovered in the Year of Interest.	Emissions from Estimated Unsurveyed Leaks in the Year of Interest	Total Emissions in the Year of Interest [Mscf of Natural Gas]
Grade 1	-	182	182	1	NA	-	-	1,804	NA	1,804
Grade 2	2	394	393	21	NA	3	2	6,979	NA	6,982
Grade 3	-	1	1	1	NA	-	-	13	NA	13
Graded Leak Total	2	577	576	NA	-	3	2	8,796	-	8,798
Above Ground Hazardous	0	0	0	0	0	0	0	0	NA	-
Above Ground Non-Hazardous	0	0	0	0	0	0	0	0	NA	-
Above Ground Non-Hazardous Minor	0	0	0	0	0	0	0	0	NA	-
AG Total	-	-	-	-	-	-	-	-	-	-
Total of All Leaks	2	577	576	NA	-	3	2	8,796	-	8,798
Main/Plastic	0	7	7	7	3	0	0	65	117	181
Main Vintage Plastic	0	73	72	9	0	1	0	1,014	0	1,014
Main/Unprotected Steel	0	0	0	NA	NA	0	NA	NA	NA	-
Main/Protected Steel	0	102	102	16	43	0	0	1,842	1,804	3,646
Main Vintage Protected Steel	0	49	49	27	0	0	0	879	0	879
Main Unknown	0	0	0	-	NA	0	NA	NA	NA	-
Service/Plastic	0	21	21	6	6	0	0	160	246	406
Service Vintage Plastic	0	57	57	11	0	0	0	842	0	842
Service/Unprotected Steel	0	0	0	NA	NA	0	NA	NA	NA	-
Service Vintage Steel	2	60	62	22	0	0	2	962	0	964
Service/Protected Steel	0	208	207	13	89	1	0	3,033	3,727	6,760
Service Unknown	0	0	0	-	NA	0	NA	NA	NA	-
Service/Copper										
Total	2	577	577	NA	140	2	2	8,796	5,893	14,691

Large Leak or Super Emitter Program Categorization										
Compliance Leak Survey - Non-LL						0				0
Compliance Leak Survey - LL						0				0
Large Leak/Super Emitter Program Outside Compliance Area - Non-LL						0				0
Large Leak/Super Emitter Program Outside Compliance Area - LL						0				0
O&M - Non-LL						0				0
O&M - LL						0				0
TOTAL	-	-	-	-	-	-	-	-	-	-
Change Due to LL/SE Program on 2023:	(2)	(577)	(577)	#VALUE!	(140)	(2)	(2)	(8,796)	(5,893)	(14,691)
% Change Due to LL/SE Program on 2023:	(100.0%)	(100.0%)	(100.0%)		(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)

This section added to the template for 2020 Reporting. Send any suggestions to improve this worksheet to Staff for consideration.

SD&GE, July 1st, 2024

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.

to Response to Data Request, R15-01-008, 2024 Rule Report

Appendix 4: Rule

Notes:

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

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

Distribution Main & Service Pipeline Damage (3rd party dig-ins, natural disasters, etc.)

ID	Geographic Location	Damage Type	Pipe Classification	Flare Material	Pipe Size (nominal)	Pipe Age (months)	Pressure (psi)	Leak Code	Active Ground or Below Ground	Discovery Date (MM/DD/YYYY)	Repair Date (MM/DD/YYYY)	Number of Data Linking	Emission Factor or Engineering Estimate (lb/MMBtu)	Annual Emissions (Mscf)	Explanatory Notes / Comments	
2104018	02028	E	DR	P	1/2" CT5	439	Less than or equal to 60	1	0	9/12/2023	9/12/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2084015	02154	E	DR	P	1"	431	Less than or equal to 60	1	0	3/2/2023	3/2/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2077380	02159	E	DR	P	3/2" PS	787	Less than or equal to 60	1	0	1/27/2023	1/27/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2052525	02163	E	DR	P	1/2" CT5	707	Less than or equal to 60	1	0	11/20/2023	11/20/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2112306	02164	E	DR	P	1/4" PS	527	Less than or equal to 60	1	0	4/26/2023	4/26/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2113126	02169	E	DR	P	1/2" CT5	467	Less than or equal to 60	1	0	5/1/2023	5/1/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2077905	02209	O	DR	PC	3/4"	623	Less than or equal to 60	2	0	5/21/2023	5/22/2023	12	0.276	0.31	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.
2127293	02277	E	DR	P	1"	767	Less than or equal to 60	1	0	12/26/2023	12/26/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2060551	02280	E	DR	P	1/2" PS	560	Less than or equal to 60	1	0	3/27/2023	3/27/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2070957	02118	E	DR	P	1/2" CT5	587	Less than or equal to 60	1	0	10/5/2023	10/5/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2084778	02146	E	DR	P	1/2" CT5	323	Less than or equal to 60	1	0	3/7/2023	3/7/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2060452	02150	E	DR	P	1"	587	Less than or equal to 60	1	0	10/2/2023	10/2/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2121729	02021	E	DR	P	1/2" CT5	599	Less than or equal to 60	1	0	6/9/2023	6/9/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2106251	02051	E	DR	P	1"	375	Less than or equal to 60	1	0	2/9/2023	2/9/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2124211	02037	E	DR	P	1/2" CT5	251	Less than or equal to 60	1	0	10/18/2023	10/18/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2078189	02077	E	DR	P	1/2" CT5	203	Less than or equal to 60	1	0	4/17/2023	4/17/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2114018	02101	O	DR	P	1/2" PS	44	Less than or equal to 60	1	0	7/9/2023	7/9/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2124337	02113	N	DR	P	1/2" PS	375	Less than or equal to 60	1	0	10/18/2023	10/18/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2042431	02024	E	MR	P	2"	611	Less than or equal to 60	1	0	11/20/2023	11/20/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2118577	02154	E	DR	P	1"	263	Less than or equal to 60	1	0	8/11/2023	8/11/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2054540	02034	E	DR	P	1"	263	Less than or equal to 60	1	0	12/1/2023	12/1/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2121262	02037	E	DR	P	1/2" CT5	331	Less than or equal to 60	1	0	10/26/2023	10/26/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2113309	01950	E	DR	P	3/4"	779	Less than or equal to 60	1	0	7/25/2023	7/25/2023	5	0.276	0.14	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.
2117943	02032	E	DR	P	1/2" CT5	224	Less than or equal to 60	1	0	8/26/2023	8/26/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2112929	02130	E	MR	P	2"	27	Less than or equal to 60	1	0	10/21/2023	10/21/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2090902	02100	E	DR	P	3/4"	731	Less than or equal to 60	1	0	5/2/2023	5/2/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2124236	02130	E	DR	P	1/2" CT5	650	Less than or equal to 60	1	0	9/25/2023	9/25/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2110091	02118	E	DR	P	1"	551	Less than or equal to 60	1	0	5/15/2023	5/15/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2112384	02109	E	DR	P	1/2" PS	387	Less than or equal to 60	1	0	4/12/2023	4/12/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2039446	02110	E	DR	P	1/2" PS	564	Less than or equal to 60	1	0	2/17/2023	2/17/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2110113	02076	E	DR	P	1/2" PS	563	Less than or equal to 60	1	0	4/17/2023	4/17/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2086809	02110	E	DR	P	1/2" PS	564	Less than or equal to 60	1	0	4/17/2023	4/17/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2127764	02039	E	DR	P	1/2" PS	151	Less than or equal to 60	1	0	11/1/2023	11/1/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2100706	02109	E	DR	P	1/2" PS	599	Less than or equal to 60	1	0	5/15/2023	5/15/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2119361	02064	E	DR	P	1/2" CT5	574	Less than or equal to 60	1	0	9/26/2023	9/26/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2117271	02180	E	DR	P	1/2" CT5	515	Less than or equal to 60	1	0	8/22/2023	8/22/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2050437	02114	E	DR	PC	3/4"	851	Less than or equal to 60	2	0	4/20/2023	4/20/2023	1	0.276	0.14	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.
2105724	02141	E	DR	PC	3/4"	779	Less than or equal to 60	1	0	8/2/2023	8/2/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2105845	02021	N	DR	P	1/2" PS	469	Less than or equal to 60	1	0	4/17/2023	4/17/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2118924	02028	N	DR	P	1/4"	453	Less than or equal to 60	1	0	9/4/2023	9/4/2023	1	0.209	0.21	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.
2125206	02094	E	DR	P	1"	8	Less than or equal to 60	1	0	12/5/2023	12/5/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2112480	02021	E	MR	PC	2"	755	Less than or equal to 60	1	0	4/26/2023	4/26/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2124514	02124	O	MR	P	1"	35	Less than or equal to 60	2	0	7/1/2023	7/1/2023	6	0.288	0.30	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.
2127362	02124	E	DR	P	1/2" PS	421	Less than or equal to 60	1	0	10/17/2023	10/17/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2081788	02036	E	DR	PC	3/4"	995	Less than or equal to 60	1	0	1/26/2023	1/26/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2111316	02039	E	DR	P	1/2" PS	476	Less than or equal to 60	1	0	4/13/2023	4/13/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2114152	02037	E	DR	P	1/2" PS	491	Less than or equal to 60	1	0	7/7/2023	7/7/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2118883	02009	E	MR	P	2"	467	Less than or equal to 60	1	0	9/4/2023	9/4/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2107466	02039	E	DR	P	1/2" PS	150	Less than or equal to 60	1	0	10/30/2023	10/30/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2106600	02011	E	DR	P	1/2" CT5	445	Less than or equal to 60	1	0	2/18/2023	2/18/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2107466	02039	E	DR	P	1/2" PS	150	Less than or equal to 60	1	0	10/30/2023	10/30/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2125446	02117	E	DR	PC	3/4"	683	Less than or equal to 60	1	0	7/13/2023	7/13/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2127962	02084	E	DR	P	2"	683	Less than or equal to 60	1	0	12/6/2023	12/6/2023	1	0.298	0.14	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.
2125447	01902	E	DR	P	1/2" CT5	551	Less than or equal to 60	1	0	11/26/2023	11/26/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2134660	02021	N	DR	P	1/2" CT5	16	Less than or equal to 60	1	0	7/14/2023	7/14/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2125109	02037	E	DR	P	1/2" PS	476	Less than or equal to 60	1	0	2/12/2023	2/12/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2121338	02077	N	DR	P	1/2" PS	491	Less than or equal to 60	1	0	3/10/2023	3/10/2023	1	0.209	0.04	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.
2121389	02173	E	DR	P	1/2" PS	450	Less than or equal to 60	1	0	9/10/2023	9/10/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2118660	02129	E	DR	P	1/2" CT5	527	Less than or equal to 60	1	0	9/27/2023	9/27/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2121389	02111	E	DR	P	1/2" PS	451	Less than or equal to 60	1	0	10/4/2023	10/4/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2109509	02128	E	DR	P	1/2" PS	538	Less than or equal to 60	1	0	11/16/2023	11/16/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.		
2104462	02039	E	DR	P	1/2" PS	476	Less than or equal to 60	1	0	4/26/2023	4/2					

SDG&E, July 1st, 2024

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 2024 June Report

Appendix 4; Rev. 03/29/2024

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.

Distribution Main & Service Pipeline Blowdowns:

ID	Geographic Location	Number of Blowdown Events	Pipe Size (nominal) (inches)	Length of Pipe (feet)	Pressure (psi)	Annual Emissions (Mscf)	Explanatory Notes / Comments
N/A	SDG&E Territory	256	N/A	N/A	N/A	0.69	Distribution Odor intensity Tests
N/A	SDG&E Territory	1	6"	36	320	0.18	ABANDONED HP MAIN PIPE
N/A	SDG&E Territory	1	1"	1708	55	0.05	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	1 1/4"	194	55	0.01	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	1 1/2"	4548	55	0.30	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	2"	12224	55	1.35	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	3"	79	55	0.02	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	4"	1592	55	0.70	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	6"	284	55	0.29	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	10"	16	55	0.04	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	1"	3	55	0.00	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	1 1/4"	9219	55	0.41	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	2"	169330	55	16.27	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	3"	37190	55	7.93	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	4"	574	55	0.22	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	6"	218	55	0.18	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	3/4"	40049	55	0.60	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1"	1502	55	0.04	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1 1/4"	226	55	0.01	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1 1/2"	143	55	0.01	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	2"	80	55	0.01	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	2 1/2"	315	55	0.05	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	4"	40	55	0.02	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1/2"	158860	55	0.78	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1"	6206	55	0.18	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1 1/4"	4469	55	0.20	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	2"	879	55	0.08	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	3"	863	55	0.18	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	4"	26	55	0.01	ABANDONED MP SERVICE PIPE
BD-23-2	SDG&E Territory	1	20"	32.21	400	0.00	Distribution blowdown
BD-23-4	SDG&E Territory	1	20"	5702.4	400	3.68	Distribution blowdown
BD-23-5	SDG&E Territory	1	20"	32	400	0.00	Distribution blowdown
BD-23-7	SDG&E Territory	1	12"	6864	60	2.02	Distribution blowdown
BD-23-10	SDG&E Territory	1	20"	32	400	0.00	Distribution blowdown
BD-23-12	SDG&E Territory	1	20"	52.8	400	0.00	Distribution blowdown
BD-23-26	SDG&E Territory	1	20"	8025.6	301	5.65	Distribution Blowdown
BD-23-17	SDG&E Territory	1	16"	1742.4	350	0.02	Distribution Blowdown
			5' of 20"	5' of 20"			
BD-23-24	SDG&E Territory	24	24' of 24"	24' of 24"	320	3.23	Distribution Blowdown
BD-23-25	SDG&E Territory	5	18	18	320	0.94	Distribution Blowdown
BD-23-8	SDG&E Territory	1	20	7,603	320	5.14	Distribution Blowdown
Sum Total						51	

SDG&E, July 1st, 2024
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 2024 June Report
Appendix 4; Rev. 03/29/2024

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.

Distribution Main & Service Pipeline Component Vented Emissions (see note above):

Total Number of Devices	Device Type	Bleed Rate	Manufacturer	Engineering or Manufacturer's based Estimate of Emissions	Annual Emissions (Mscf)	Explanatory Notes / Comments
Sum Total					0	

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.

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

Total Number of Devices	Device Type	Bleed Rate	Manufacturer	Discovery Date (MM/DD/YY)	Repair Date (MM/DD/YY)	Number of Days Leaking	Emission Factor (Mscf/day)	Annual Emission (Mscf)	Explanatory Notes / Comments
							Sum Total	0	

Pipeline Leaks

Removed

2305529

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Header column "Comment" boxes displayed below for reference.	
Column Heading	Description and Definition of Required Contents (IF not self-explanatory)
Pipeline Leaks	
ID	
Geographic Location	GIS, zip code, or equivalent
Pipe Classification	MA = distribution main, above ground MB = distribution main, below ground DA = distribution service, above ground DB = distribution service, below ground
Pipe Material	C = copper CI = cast iron P = plastics (Acetyl, ABS, PE, PVC, etc.) PB = cathodically protected steel, bare PC = cathodically protected steel, coated UB = unprotected steel, bare UC = unprotected steel, coated
Pipe Size (nominal)	
Pipe Age (months)	
Pressure (psi)	MOP = maximum operating pressure over the past year
Leak Grade	If the utility uses grades for above ground leaks, it is unnecessary to use the AH,AN, or AM designations. 1 = grade 1 2 = grade 2 2+ = grade 2+ 3 = grade 3 AH = Above Ground Hazardous synonymous with Grade 1. AN = Above Ground Non-Hazardous, synonymous with Grade 2 and 2+. AM = Above Ground Non-Hazardous Minor (akin to grade 3 below ground leak). N = non-graded or ungraded
Upgraded Leak Grade or Downgraded Leak Grade	U: Upgraded Leak such as a grade 2 or 3 leak that was surveyed again and changed designation to grade 1 or 2. D: downgraded leak, such as a grade 1 or 2 leak that was surveyed again and changed designation to grade 2 or 3.
Above Ground or Below Ground	A = Above Ground B = below ground

Leak Discovery Method	<p>S = Routine Leak Survey (This discovery method should be parsed and the emissions summarized into leaks carried over from before 2016, and those detected in 2016. The totals for these subcategories should be carried over to column C43 through D63 on the Unsurveyed Pipeline Leaks tab.)</p> <p>M = O&M (E.G. O&M Activities, Third party reports, customer odor reports etc.)</p> <p>O = Other (This will be grouped with M in the summary categorization of leaks.)</p>
Discovery Date (MM/DD/YY)	
Re-Grade Date (MM/DD/YY)	
Repair Date (MM/DD/YY)	Date that the pipeline repair stopped the leak. Any associated blowdowns resulting from the repair should be included in the blowdowns tab.
Scheduled Repair Date (MM/DD/YY)	<p>If leak is open, specify the scheduled date of repair;</p> <p>Otherwise type "M," signifying that the leak is being monitored with no scheduled date of repair;</p> <p>Then, provide the reason for not scheduling a repair in Column P.</p>
Reason for Not Scheduling a Repair	If Repair Date is blank, and Scheduled Repair Date (Column O) = "M", then provide the reason for not scheduling a repair.
Number of Days Leaking	<p>If the leak was discovered by survey in the year of interest, then assume leaking from January 1st of subject year <u>thru</u> repair date or December 31st of subject year, which ever is earlier. (E.G. Days Leaking = Repair - Jan 1st + 1 day.)</p> <p>(For days leaking for leaks carried over use January 1st as start date for emissions calculations.)</p> <p>For O&M discovered leaks, assume that the leak begins with the discovery date <u>thru</u> repair date or December 31st of subject year, whichever is earlier.</p>
Number of Days to Repair	<p>Use only Repair-Discovery +1. Do not use January 1st for time to repair.</p> <p>For regraded leaks, use Repair Date - Regrade Date +1.</p>
Emission Factor (Mscf/Day)	
Annual Emissions (Mscf)	
Explanatory Notes / Comments	
Unknown Leaks	
Facility/Material	
Total System Miles per material type	
Miles on Annual Survey [$M_{X,A}$]	

Miles on Multi-Year Survey Cycles [M_X^{Tot}]	
Survey Interval (yrs) [I]	
Miles Surveyed Annually from Multi-Year Survey Cycles [$M_{X,I}$]	
Total # of Leaks Detected from Survey [$N_{X,L}$]	
If using a 3-year trailing leak rate average then include - 2019 Annual Leak Rate [$R_{X,1}$]	
If using a 3-year trailing leak rate average then include - 2020 Annual Leak Rate [$R_{X,2}$]	
2022 Annual Leak Rate [$R_{X,3}$]	$R_{X,3} = \frac{N_{X,L}}{M_{X,A} + (I \times M_{X,I})}$
If applicable, then calculate the 3-year Average Leak Rate [Leaks / Mile / Yr]	$\overline{R_X} = \frac{1}{3} \sum_{i=1}^3 R_{X,i}$
# of Unknown Leaks	$N_{X,unk} = \overline{R_X} \times (M_X^{Tot} - M_{X,I}) \times \frac{I}{2}$
Total # of Leaks Detected from O&M* [$N_{X,O}$]	
Pipeline Leaks Summary	
Count of Leaks Carried over from Prior Year	Based on a leak start date prior to the first day of the year of interest.
Count of Leaks Discovered in the Year of Interest	The total number of leaks by grade or category discovered in the year of interest. If a leak is downgraded to not leaking, do not count it.
Count of Leaks Repaired in the Year of Interest	

Average Days to Repair Leaks	The average days to repair leaks should be baase on the formula: (Repair Date/Time minus Discovery Date/Time) plus (one day, unless using a discrete time stamp for leak repairs), then take the sum and divide by number of leaks repaired by grade to get the average days to repair.
Count of Estimated Unsurveyed Leaks in the Year of Interest	For leaks identified in Unsurveyed areas extrapolate the proportion of leak counts by grade that were found in the respective areas based on the year or periods used to estimate the unsurveyed leak count. If the unsurveyed leak count was based on the current year leak count by grade detected then use the current proportion of graded leak count applied to the unsurveyed leaks.
Count of Remaining Leaks at final day of the Year of Interest (12/31/xx)	This count is only of the actual leaks detected in the operator's system that have not been repaired as of 12/31 of the year of interest.
Emissions from Leaks Carried over from Prior Year.	Based on a leak start date prior to the first day of the year of interest. This includes leaks discovered through O&M and survey activities.
Emissions from Leaks Discovered in the Year of Interest.	The total number of leaks by grade or category discovered in the year of interest. This includes leaks discovered through O&M and survey activities.
Emissions from Estimated Unsurveyed Leaks in the Year of Interest	The emissions by grade would be on the same basis that used to extrapolate the count of leaks in the unsurveyed areas. For example: For leaks identified in Unsurveyed areas extrapolate the proportion of leak emissions by grade that were found in the respective areas based on the year or periods used to estimate the unsurveyed leak count. If the unsurveyed leak count was based on the current year leaks detected then use the current proportion of graded leaks applied to the unsurveyed leak emissions.
Total Emissions in the Year of Interest [Mscf of Natural Gas]	
All Damages	
ID	
Geographic Location	GIS, zip code, or equivalent
Damage Type	E = excavation damage N = natural force damage O = other outside force damage
Pipe Classification	MA = distriibution main, above ground MB = distriibution main, below ground DA = distribution service, above ground DB = distribution service, below ground

Pipe Material	C = copper CI = cast iron P = plastics (Acetal, ABS, PE, PVC, etc.) PB = cathodically protected steel, bare PC = cathodically protected steel, coated UB = unprotected steel, bare UC = unptotected steel, coated
Pipe Size (nominal)	
Pipe Age (months)	
Pressure (psi)	MOP = maximum operating pressure over the past year
Leak Grade	1 = grade 1 2 = grade 2 2+ = grade 2+ 3 = grade 3 N = Non-Graded
Above Ground or Below Ground	AH = above ground, hazardous AN = above ground, non-hazardous B = below ground
Discovery Date (MM/DD/YY)	
Repair Date (MM/DD/YY)	
Number of Days Leaking	<p>If date and time stamp are reliable and used consistently by respondent, then emissions may be calculated based on actual time leaking. E.G. Repair time - damage event time = duration of event.</p> <p>If respondent has average or historical leak duration based on the nature and circumstances of damages, then these may be applied to like damage events. The emissions factors should be adequately supported and explained in the filing.</p> <p>If actual time stamps and historical averages are not available, then whole days should be used in the engineering calculation. The leak begins with the damage event date thru repair date or December 31st of subject year, whichever is later. E.G. Days Leaking = Repair date - date of damage + 1 day.</p>
Emission Factor or Engineering Estimate (Mscf/Day)	
Annual Emissions (Mscf)	
Explanatory Notes / Comments	
Blowdowns	
ID	
Geographic Location	GIS, zip code, or equivalent

Number of Blowdown Events	If counting a series of small blowdowns associated with services such as MSA replacement, or Service pipe of small diameter or section length then enter total and the formula in the explanation column.
Pipe Size (nominal)	
Length of Pipe	
Pressure (psi)	MOP = maximum operating pressure over the past year
Annual Emissions (Mscf)	
Explanatory Notes / Comments	
Component Vented Emissions	
Total Number of Devices	
Device Type	P = pneumatic device H = hydraulic valve operator T = turbine valve operator PR = pressure relief valve O = other devices
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	
Component Fugitive Leaks	
Total Number of Devices	
Device Type	P = pneumatic device H = hydraulic valve operator T = turbine valve operator PR = pressure relief valve O = other devices
Bleed Rate	L = low bleed I = intermittent bleed H = high bleed NA = not applicable
Manufacturer	
Discovery Date (MM/DD/YY)	List the actual discovery date. If the leak was discovered in the year of interest, then we will assume the component was leaking from the beginning of the year for emissions reporting purposes.

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.
Number of Days Leaking	Assume Leaking from January 1 of subject year or prior survey date, whichever is later, thru the repair date (if repaired in year of interest) or December 31 of subject year, whichever is earlier. For O&M discovered leaks, assume that the leak begins with the discovery date <u>thru</u> repair date or December 31st of subject year, whichever is earlier.
Emission Factor (Mscf/day)	
Annual Emission (Mscf)	
Explanatory Notes / Comments	