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 2

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 (#2):

(6) Calculable or estimated fugative emissions and non-graded gas leaks, as defined in Data Request SDG&E R15-01-008 2017 June Report.

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.

 $Facilities\ emissions\ that\ are\ based\ on\ a\ population\ count\ times\ an\ emission\ factor\ (See\ Appendix\ 9\ for\ guidance).$

Response:

Transmission M&R Station Total Leaks and Emissions:

| _ | Number of Stations | Station Classification | Emission Factor (Mscf/yr/ <mark>station</mark>) | Annual Emission (Mscf) | Explanatory Notes / Comments | | |
|---|--------------------------|---------------------------|---|---------------------------|------------------------------|--|--|
| • | 20 | D | 12.2 | 244 | | | |
| | 15 | T | 1,554.8 | 23,322 | | | |
| | | | Sum Total | 23,566 | | | |

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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. Response:

Transmission M&R Station Blowdowns:

| ID | Geographic Location | Number of Blowdown Events | Annual Emissions (Mscf) | Explanatory Notes / Comments |
|---------------------------------|------------------------|---------------------------------|-------------------------------|---|
| Pressure Limiting Station Insp. | SDG&E Territory | 87 | 1.74 / | Annual Insp. Vented gas = 20 scf/insp. |
| Pneumatic Device Insp. | SDG&E Territory | 12 | 0.01 [| Biannual Insp. Pneumatic Devices with avg. gas vent = 1 scf/insp. |
| Drip Operations | SDG&E Territory | 2 | 1.88 (| Pipeline Drip accumulation approx. emissions, bleed rate = 11,300 cfh for 5min per devi |
| Relief Valve Insp. | SDG&E Territory | 11 | 0.22 / | Annual test with Nitrogen. Only gas vented is volume of gas in valve @ 20 scf/insp. |
| | | Sum Total | 3.86 | |

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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 (#2):

(6) Calculable or estimated emissions and non-graded gas leaks, as defined in Data Request SDG&E R15-01-008 2017 June Report

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. Response:

Transmission M&R Station Component Vented Emissions:

| ID/Number of Devices | Geographic Location | Device Type | Bleed Rate | Manufacturer | Number of Days Emitting | Annual Emissions (Mscf) | Explanatory Notes / Comments | Emission Factor (Mscf/day/dev) |
|-------------------------|------------------------|----------------|------------|--------------|-------------------------------|----------------------------|--|-----------------------------------|
| 3 | SDG&E Territory | Р | I | Misc. | 366 | | ntermittent Bleed Pneumatic evices emissions are included in 0.0576 rans-to-trans Emission Factor f 1,554.8 Mscf/Station/Year | |
| 1 | SDG&E Territory | Р | I | Misc. | 366 | 21.08 | Intermittent Bleed Pneumatics = 0.0576 Mscf/day/dev | 0.0576 |
| 2 | SDG&E Territory | Р | Н | Bristol | 366 | NA | High Bleed Pneumatic Devices emissions are included in Trans- to-trans Emission Factor of 1,554.8 Mscf/Station/Year | 0.4457 |
| | | | | | Sum Total | 21.08 | | |

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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 (#2):

(6) Calculable or estimated emissions and non-graded gas leaks, as defined in Data Request SDG&E R15-01-008 2017 June Report

Notos:

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.

Response

Transmission M&R Station Component Fugitive Leaks:

| ID | Geographic Location | Device Type | Bleed Rate | Manufacturer | Discovery Date (MM/DD/YY) | Repair Date (MM/DD/YY) | Number of Days Leaking | Annual Emissions (Mscf) | Explanatory Notes / Comments |
|--------------|------------------------|----------------|------------|--------------|------------------------------|---------------------------|------------------------------|----------------------------|---|
| 510000423658 | 92114 | С | NA | NA | 1/7/2016 | 1/7/2016 | 7 | NA | Component leaks at Transmission M&R Stations - Emissions are included in Transmission M&R Facilities Emission Factor of 1,554.8 Mscf/Station/Yea |
| 510000446565 | 91950 | Other | NA | NA | 4/20/2016 | 4/20/2016 | 111 | NA | Component leaks at Transmission M&R Stations - Emissions are included in Transmission M&R Facilities Emission Factor of 1,554.8 Mscf/Station/Yea |
| 510000475512 | 92028 | C | NA | NA | 11/17/2016 | 11/17/2016 | 322 | NA | Component leaks at Transmission M&R Stations - Emissions are included in Transmission M&R Facilities Emission Factor of 1,554.8 Mscf/Station/Yea |
| 510000485470 | 92131 | С | NA | NA | 12/2/2016 | 12/2/2016 | 337 | NA | Component leaks at Transmission M&R Stations - Emissions are included in Transmission M&R Facilities Emission Factor of 1,554.8 Mscf/Station/Year |

Sum Tota

Note: Selection for "Other" types of component leaks was removed as a selection category. Suggest adding this category back into the list of Device Type.