

PUBLIC UTILITIES COMMISSION  
505 Van Ness Avenue  
San Francisco CA 94102-3298



**Southern California Gas Company**  
**GAS (Corp ID 904)**  
**Status of Advice Letter 5920G**  
**As of April 27, 2022**

Subject: Modifications to Rule No. 45 to Provide Lower and Upper Action Level Specifications for Ammonia, Mercury, and Siloxanes Pursuant to Decision (D.) 20-12-031.

Division Assigned: Energy

Date Filed: 12-30-2021

Date to Calendar: 01-03-2022

Authorizing Documents: D2012031

<b>Disposition:</b>	<b>Accepted</b>
<b>Effective Date:</b>	<b>04-13-2022</b>

Resolution Required: No

Resolution Number: None

Commission Meeting Date: None

CPUC Contact Information:

[edtariffunit@cpuc.ca.gov](mailto:edtariffunit@cpuc.ca.gov)

AL Certificate Contact Information:

Grisel Juarez Velazquez

213-244-2822

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**PUBLIC UTILITIES COMMISSION**  
505 Van Ness Avenue  
San Francisco CA 94102-3298



To: Energy Company Filing Advice Letter

From: Energy Division PAL Coordinator

Subject: Your Advice Letter Filing

The Energy Division of the California Public Utilities Commission has processed your recent Advice Letter (AL) filing and is returning an AL status certificate for your records.

The AL status certificate indicates:

- Advice Letter Number
- Name of Filer
- CPUC Corporate ID number of Filer
- Subject of Filing
- Date Filed
- Disposition of Filing (Accepted, Rejected, Withdrawn, etc.)
- Effective Date of Filing
- Other Miscellaneous Information (e.g., Resolution, if applicable, etc.)

The Energy Division has made no changes to your copy of the Advice Letter Filing; please review your Advice Letter Filing with the information contained in the AL status certificate, and update your Advice Letter and tariff records accordingly.

All inquiries to the California Public Utilities Commission on the status of your Advice Letter Filing will be answered by Energy Division staff based on the information contained in the Energy Division's PAL database from which the AL status certificate is generated. If you have any questions on this matter please contact the:

Energy Division's Tariff Unit by e-mail to  
**[edtariffunit@cpuc.ca.gov](mailto:edtariffunit@cpuc.ca.gov)**



Joseph Mock  
Director  
Regulatory Affairs

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December 30, 2021

Advice No. 5920  
(U 904 G)

Public Utilities Commission of the State of California

**Subject: Modifications to Rule No. 45 to Provide Lower and Upper Action Level Specifications for Ammonia, Mercury, and Siloxanes Pursuant to Decision (D.) 20-12-031**

**Purpose**

Pursuant to Ordering Paragraph (OP) 11 in D.20-12-031, *Adopting the Standard Renewable Gas Interconnection and Operating Agreement*, Southern California Gas Company (SoCalGas) hereby submits this Tier 2 Advice Letter to modify Rule No. 45, Standard Renewable Gas Interconnection, to provide lower and upper action level specifications for ammonia, mercury, and siloxanes in Renewable Gas (RG).<sup>1</sup>

**Background**

On February 13, 2013, Rulemaking (R.) 13-02-008 was opened to implement Assembly Bill (AB) 1900 (Gatto, 2012), which added Health and Safety Code (HSC) § 25421 and requires the California Public Utilities Commission (Commission or CPUC) to take certain actions with respect to biogas and biomethane.

Specifically, HSC § 25421(c) requires the Commission to adopt biomethane standards that specify the concentration of allowable constituents in biomethane injected into a common carrier pipeline. The adoption of the biomethane standards is to ensure the protection of human health, and to ensure pipeline and pipeline facility integrity and safety. HSC § 25421(a) specifies that the process for creating and updating human health protection biomethane standards starts with the Office of Environmental Health Hazard Assessment (OEHHA), in consultation with the California Air Resources Board (CARB) and other agencies, which shall compile a list of constituents of concern that could pose risks to human

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<sup>1</sup> Pacific Gas & Electric Company, SoCalGas, San Diego Gas and Electric Company, and Southwest Gas Corporation (collectively, the Joint Utilities) have developed the proposed constituent specifications.

health and that are found in biogas. This review and update procedure is to take place every five years, or earlier if new information becomes available.

D.14-01-034 adopted the original biomethane standards pursuant to the process established by AB 1900. OP 7 of D.14-01-034 requires the Joint Utilities to file an application with the Commission to formally update biomethane standards within five years from the effective date of the decision. OP 8 of D.14-01-034 states that either OEHHA or CARB can send a letter to the Commission requesting updates to the biomethane standards if they deem it necessary prior to the five-year mark. OP 9 of D.14-01-034 requires the Joint Utilities to specify lower and upper action levels for Integrity Protective Constituents (IPC) ammonia, biologicals, hydrogen, mercury, and siloxanes as part of the process of updating biomethane standards for the first time.

The Joint Utilities requested and received a waiver of their five-year filing obligation by the Commission's Executive Director on December 10, 2018, given that CARB had not published any updated guidance for constituents of concern at that time.

OP 11 of D.20-12-031 states that the Joint Utilities shall provide upper and lower action level specifications in a joint filing to be submitted to the Commission no later than April 1, 2021 for biologicals<sup>2,3</sup> and January 1, 2022 for ammonia, mercury, and siloxanes. Upper and lower action levels of hydrogen will be established pursuant to Phase 4 of R.13-02-008.

### **Proposed Lower and Upper Constituent Specifications**

SoCalGas, in conjunction with the Joint Utilities, proposes the following Trigger Level, Lower Action Level (LAL), and Upper Action Level (UAL) constituent specifications for ammonia, mercury, and siloxanes as shown in Table 1 below.

**Table 1**

	<b>Current</b>	<b>Proposed</b>	<b>Proposed</b>	<b>Proposed</b>
<b>Constituent</b>	<b>Trigger Level</b>	<b>Trigger Level</b>	<b>Lower Action Level</b>	<b>Upper Action Level</b>
Ammonia	0.001%	0.0004% (3 mg/m <sup>3</sup> )	0.001% (7 mg/m <sup>3</sup> )	0.0025% (18 mg/m <sup>3</sup> )
Mercury	0.08 mg/m <sup>3</sup>	0.08 mg/m <sup>3</sup> (No Change Proposed)	TBD	TBD
Siloxane	0.01 mg Si/m <sup>3</sup>	0.05 mg Si/m <sup>3</sup>	0.1 mg Si/m <sup>3</sup>	0.3 mg Si/m <sup>3</sup>

<sup>2</sup> On April 1, 2021, SoCalGas submitted Advice No. 5792 to establish lower and upper action levels for biologicals in Rule No. 45. Advice No. 5792 was made effective on May 1, 2021 and approved by the Commission on August 27, 2021.

<sup>3</sup> Pursuant to direction provided by Energy Division staff on March 19, 2021, the Joint Utilities were instructed to submit separate advice letters instead of a joint submittal. This allows each utility to submit their own tariff sheet modifications, which would not be possible with a joint advice letter submittal.

			(No Change Proposed)	
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### **Discussion on Ammonia**

Ammonia is a colorless gas with a noxious odor found in nature through the process of anaerobic decay of plant and animal matter. Ammonia may potentially be found in biogas sourced from dairies and other farming operations, wastewater treatment plants, landfills, food waste, and other organic wastes, and when combusted can increase nitrogen oxides (NO<sub>x</sub>) emissions from sensitive gas-fired equipment.

Based on findings available in the literature on the impact of ammonia on increasing NO<sub>x</sub> emissions on gas-fired equipment,<sup>4,5</sup> SoCalGas proposes a LAL of 10 parts per million (ppm<sub>v</sub>) or 0.001% (7 mg/m<sup>3</sup>). This LAL is an industry best practice that would allow SoCalGas to safely monitor the gas supply and shut-in gas with high ammonia levels that could increase NO<sub>x</sub> emissions on gas fired equipment.

SoCalGas proposes a UAL of 25 ppm<sub>v</sub> or 0.0025% (18 mg/m<sup>3</sup>) to control NO<sub>x</sub> emissions.

SoCalGas is unaware of any research studies that show a negative impact on integrity of pipeline system infrastructure at the LAL or UAL levels recommended above.

It should be noted that since the proposed LAL is the same as the current Trigger Level, SoCalGas proposes to reduce the Trigger Level from 0.001% to 0.0004% or 4 ppm<sub>v</sub> (3 mg/m<sup>3</sup>)<sup>6</sup> based on levels recommended by MarcoGaz,<sup>7</sup> Canadian Gas Association<sup>8</sup> and used by Fortis BC.

### **Discussion on Mercury**

Mercury in the gas stream has the potential to cause corrosion to metals such as aluminum and copper, depending on exposure time and operating conditions. The Trigger Level of 0.08 mg/m<sup>3</sup> implemented by the Joint Utilities in 2014 originated from a literature review and was consistent with professional publications which found that a mercury content of 0.085 mg/m<sup>3</sup>

<sup>4</sup> Pollutant Formation during Utilization of Renewable Natural Gas Containing Trace Ammonia Impurities at 19178, available at <https://pubs.acs.org/doi/10.1021/acs.iecr.0c03407>.

<sup>5</sup> Bay Area Air Quality Management Regulation 9, Rule 6: Nitrogen Oxides Emissions from Natural Gas-Fired Water Heaters-Adopted at 9-6-3, available at <https://www.baaqmd.gov/rules-and-compliance/rules/req-9-rule-6-nitrogen-oxides-emissions-from-natural-gasfired-water-heaters>.

<sup>6</sup> SoCalGas recognizes that OP 11 of D.20-12-031 does not specifically authorize revision of the Trigger Level. However, a reduced Trigger Level will permit monitoring of the ammonia concentration prior to the Lower Action Level being reached. If the Commission does not approve the reduced Trigger Level, SoCalGas requests that the current Trigger Level of 0.001% be retained.

<sup>7</sup> See [https://www.marcogaz.org/wp-content/uploads/2021/04/WG\\_GQ-187.pdf](https://www.marcogaz.org/wp-content/uploads/2021/04/WG_GQ-187.pdf).

<sup>8</sup> 2018 AGA-EPA Renewable Natural Gas Workshop Presentation at Slide 6, available at [https://www.epa.gov/sites/default/files/2018-11/documents/15\\_jim\\_tweedie\\_-\\_508.pdf](https://www.epa.gov/sites/default/files/2018-11/documents/15_jim_tweedie_-_508.pdf).

is a cause for concern.<sup>9</sup> Efforts by the Joint Utilities to establish an LAL and UAL have resulted in sponsored literature reviews and industry studies, along with data gathering through operational experience with active RG projects.

Industry research is largely limited to the impact of mercury on infrastructure used for cryogenic operations, where liquefied natural gas equipment shows corrosion, such as brazed aluminum heat exchangers, and as a result a cryogenic limit for mercury was established at 10 ng/m<sup>3</sup> (or 0.00001 mg/m<sup>3</sup> for reference). It is important to note that cryogenic operations are not applicable to the Joint Utilities' service territories in California. Additionally, it is common practice by cryogenic operators to use mercury guard beds to protect equipment integrity from the risks that mercury poses.

The focus of the Joint Utilities is on the effects of mercury on the natural gas pipeline infrastructure and end-user equipment rather than cryogenic operations. A literature review conducted by the University of Southern California's School of Engineering on Mercury in Natural Gas and Biogas<sup>10</sup> concluded that additional studies are necessary to assess the impact of mercury on non-cryogenic end-user equipment. This literature research sponsored by SoCalGas<sup>11</sup> did not identify any specific studies on the effects of mercury or its derivatives in natural gas pipeline systems.

Recently, the Joint Utilities financially supported an industry study by NYSEARCH (Gap Analysis of Limits of Trace Constituents in RNG)<sup>12</sup> with the intent of having mercury included to substantiate developing a LAL and UAL. However, the researchers did not consider future testing of mercury necessary for the next phase of their study on appliances because the industry already had an established cryogenic limit (10 ng/m<sup>3</sup>).

SoCalGas has interconnected numerous RG projects and collected operational data from a diverse mix of RG gas supplies, including dairy, wastewater, and other organic sources. Gas quality in these projects has not shown mercury at a concentration exceeding the current Trigger Level, suggesting that mercury concentration at a level that would present an integrity concern is not a likely occurrence for these RG sources. Landfill RG projects, a likely source of mercury, are not currently interconnected to any of the Joint Utilities' gas systems to facilitate gaining operational experience or performing any field tests. Landfill projects are expected to interconnect within the next two to three years. Therefore, SoCalGas proposes to continue to monitor available literature and gather operational data to support a UAL/LAL recommendation once sufficient information is available.

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<sup>9</sup> From R.13-02-008 (September 5, 2013), at 16. JOINT OPENING BRIEF OF SOUTHERN CALIFORNIA GAS COMPANY (U 904 G), SAN DIEGO GAS & ELECTRIC COMPANY (U 902 G), PACIFIC GAS AND ELECTRIC COMPANY (U 39 G), AND SOUTHWEST GAS CORPORATION (U 905 G) [Ex. Utilities-3 (Rivera/Raymundo/Frehse) at 10 (referencing American Society for Materials, Corrosion Handbook vol. 13 at 551)].

<sup>10</sup> Literature Review on Mercury in Natural Gas and Biogas in the RD&D Annual Report, available at <https://www.socalgas.com/sustainability/research-and-development>.

<sup>11</sup> *Id.*

<sup>12</sup> See [https://www.nysearch.org/tech-brief\\_4\\_05-2021.php](https://www.nysearch.org/tech-brief_4_05-2021.php).

## **Discussion on Siloxanes**

Siloxanes are often found in industrial and consumer beauty and personal hygiene products, such as cosmetics, cleaning agents and lubricants. Siloxanes may potentially be found in biogas sourced from dairies, wastewater, and landfills.

SoCalGas proposes no change to the current LAL of 0.1 mg Si/m<sup>3</sup> as this limit was re-confirmed by additional testing conducted by NYSEARCH on residential appliances.<sup>13</sup>

SoCalGas proposes that a UAL of 0.3 mg Si/m<sup>3</sup> would sufficiently protect the lifespan of residential customer appliances between test periods, as shown by testing conducted by NYSEARCH.<sup>14</sup> This limit is also supported by the European Committee for Standardization of specifications for biomethane as a fuel for engines (CEN/TC 408).<sup>15</sup>

Additionally, SoCalGas proposes a revised Trigger Level of 0.05 mg Si/m<sup>3</sup> based on demonstrated minimum detection level by commercial laboratories and monitors offering this service to RNG producers. The Joint Utilities are awaiting the results of an ASTM Inter-Laboratory study (ILS) conducted by the Gas Technology Institute for the Operations Technology Development group<sup>16</sup> to make future updates in testing standards for precision, repeatability, and reproducibility. The project is in progress and the results are expected to be available in 2024.<sup>17</sup>

## **Proposed Tariff Revisions to Rule No. 45**

- Modify Renewable Gas Quality And Specifications Section K.2.a. Table 1 Maximum Constituent Concentrations
- Ammonia – Trigger Level, LAL and UAL
- Mercury – No Change
- Siloxanes – Trigger Level and UAL

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<sup>13</sup> NYSEARCH Natural Gas RD&D: Testing of Residential Appliances for Impact of Siloxanes, available at <https://www.nysearch.org/tech-brief-4-siloxane-appliance-impact.php>.

<sup>14</sup> *Id.*

<sup>15</sup> CEN/TC 408 – Project Committee – Biomethane For Use in Transport and Injection in Natural Gas Pipelines, available at <https://standards.iteh.ai/catalog/tc/cen/4a70e2ba-a169-4c8a-97b2-dc59bc46aa93/cen-tc-408>.

<sup>16</sup> Operations Technology Development is a member-controlled partnership of gas distribution companies to develop, test, and implement new technologies related to safe and reliable operation of infrastructure.

<sup>17</sup> Considering the necessary reviews, statistics, ballots, and publication time for ASTM It is customary for ILS to be completed within 5 years of publishing a new ASTM standard and in this case by 2024.

**Protest**

Anyone may protest this advice letter to the Commission. The protest must state the grounds upon which it is based, including such items as financial and service impact, and should be submitted expeditiously. The protest must be made in writing and received within 20 days of the date of this advice letter, which is January 19, 2022. The address for mailing or delivering a protest to the Commission is:

CPUC Energy Division  
Attention: Tariff Unit  
505 Van Ness Avenue  
San Francisco, CA 94102

A copy of the protest should also be sent via e-mail to the attention of the Energy Division Tariff Unit ([EDTariffUnit@cpuc.ca.gov](mailto:EDTariffUnit@cpuc.ca.gov)). Due to the COVID-19 pandemic, SoCalGas is currently unable to receive protests or comments to this advice letter via U.S. mail or fax. Please submit protests or comments to this advice letter via e-mail to the addresses shown below on the same date it is mailed or e-mailed to the Commission.

Attn: Grisel Juarez Velazquez  
Sr. Regulatory Tariff Administrator  
555 West Fifth Street - GT14D6  
Los Angeles, CA 90013-1011  
Facsimile No.: (213) 244-4957  
E-mail: [GJuarezVelazquez@socalgas.com](mailto:GJuarezVelazquez@socalgas.com)  
E-mail: [Tariffs@socalgas.com](mailto:Tariffs@socalgas.com)

**Effective Date**

SoCalGas believes this advice letter is subject to Energy Division disposition and should be classified as Tier 2 (effective after staff approval) pursuant to General Order (GO) 96-B. It is in compliance with OP 11 of D.20-12-031. SoCalGas respectfully requests that this submittal be effective on January 29, 2022, which is 30 days after the date submitted.

**Notice**

A copy of this advice letter is being sent to SoCalGas' GO 96-B service list and the Commission's service list in R.13-02-008. Address change requests to the GO 96-B should be directed via e-mail to [Tariffs@socalgas.com](mailto:Tariffs@socalgas.com) or call 213-244-2837. For changes to all other service lists, please contact the Commission's Process Office at 415-703-2021 or via e-mail at [Process\\_Office@cpuc.ca.gov](mailto:Process_Office@cpuc.ca.gov).



/s/ Joseph Mock  
Joseph Mock  
Director - Regulatory Affairs

Attachments



# ADVICE LETTER SUMMARY

## ENERGY UTILITY



MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.:

Utility type:

ELC       GAS       WATER  
 PLC       HEAT

Contact Person:

Phone #:  
E-mail:  
E-mail Disposition Notice to:

EXPLANATION OF UTILITY TYPE

ELC = Electric      GAS = Gas      WATER = Water  
PLC = Pipeline      HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #:

Tier Designation:

Subject of AL:

Keywords (choose from CPUC listing):

AL Type:  Monthly     Quarterly     Annual     One-Time     Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #:

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL:

Summarize differences between the AL and the prior withdrawn or rejected AL:

Confidential treatment requested?  Yes     No

If yes, specification of confidential information:

Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information:

Resolution required?  Yes     No

Requested effective date:

No. of tariff sheets:

Estimated system annual revenue effect (%):

Estimated system average rate effect (%):

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected:

Service affected and changes proposed<sup>1</sup>:

Pending advice letters that revise the same tariff sheets:

<sup>1</sup>Discuss in AL if more space is needed.

**Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:**

CPUC, Energy Division  
Attention: Tariff Unit  
505 Van Ness Avenue  
San Francisco, CA 94102  
Email: [EDTariffUnit@cpuc.ca.gov](mailto:EDTariffUnit@cpuc.ca.gov)

Name:  
Title:  
Utility Name:  
Address:  
City:  
State: Zip:  
Telephone (xxx) xxx-xxxx:  
Facsimile (xxx) xxx-xxxx:  
Email:

Name:  
Title:  
Utility Name:  
Address:  
City:  
State: Zip:  
Telephone (xxx) xxx-xxxx:  
Facsimile (xxx) xxx-xxxx:  
Email:

ATTACHMENT A  
Advice No. 5920

Cal. P.U.C. Sheet No.	Title of Sheet	Cancelling Cal. P.U.C. Sheet No.
Revised 59478-G	Rule No. 45, STANDARD RENEWABLE GAS INTERCONNECTION, Sheet 27	Original 58069-G
Revised 59479-G	Rule No. 45, STANDARD RENEWABLE GAS INTERCONNECTION, Sheet 28	Revised 58724-G
Revised 59480-G	TABLE OF CONTENTS	Revised 58727-G
Revised 59481-G	TABLE OF CONTENTS	Revised 59396-G

Rule No. 45

Sheet 27

STANDARD RENEWABLE GAS INTERCONNECTION

(Continued)

K. Renewable Gas Quality and Specifications (Continued)

2. Renewable Gas Constituent Concentrations (Continued)

a. (Continued)

<b>Table 1 (Continued)</b>						
<b>Maximum Constituent Concentrations</b>						
Ethylbenzene	26 mg/m <sup>3</sup> 6.0 ppmv	260 mg/m <sup>3</sup> 60 ppmv	650 mg/m <sup>3</sup> 150 ppmv	X	X	X
n-Nitroso-di-n-propylamine	0.033 mg/m <sup>3</sup> 0.006 ppmv	0.33 mg/m <sup>3</sup> 0.06 ppmv	0.81 mg/m <sup>3</sup> 0.15 ppmv	X	X	
Vinyl Chloride	0.84 mg/m <sup>3</sup> 0.33 ppmv	8.4 mg/m <sup>3</sup> 3.3 ppmv	21 mg/m <sup>3</sup> 8.3 ppmv	X		X
<b>Health Protective Constituents (HPC) - Non-Carcinogenic <sup>2</sup></b>						
Antimony	0.60 mg/m <sup>3</sup> 0.12 ppmv	6.0 mg/m <sup>3</sup> 1.2 ppmv	30 mg/m <sup>3</sup> 6.1 ppmv	X		
Copper	0.060 mg/m <sup>3</sup> 0.02 ppmv	0.60 mg/m <sup>3</sup> 0.23 ppmv	3.0 mg/m <sup>3</sup> 1.2 ppmv	X		
Hydrogen Sulfide <sup>6</sup>	30 mg/m <sup>3</sup> 22 ppmv	300 mg/m <sup>3</sup> 216 ppmv	1500 mg/m <sup>3</sup> 1080 ppmv	X	X	X
Lead	0.075 mg/m <sup>3</sup> 0.009 ppmv	0.75 mg/m <sup>3</sup> 0.09 ppmv	3.8 mg/m <sup>3</sup> 0.44 ppmv	X		
Mercaptans (Alkyl Thiols) <sup>6</sup>	12 ppmv	120 ppmv	610 ppmv	X	X	X
Methacrolein	1.1 mg/m <sup>3</sup> 0.37 ppmv	11 mg/m <sup>3</sup> 3.7 ppmv	53 mg/m <sup>3</sup> 18 ppmv	X		
Toluene	904 mg/m <sup>3</sup> 240 ppmv	9000 mg/m <sup>3</sup> 2400 ppmv	45000 mg/m <sup>3</sup> 12000 ppmv	X	X	X
<b>Integrity Protective Constituents (IPC) <sup>3</sup></b>						
Ammonia	0.0004% (3 mg/m <sup>3</sup> )	0.001% (7 mg/m <sup>3</sup> )	0.0025% (18 mg/m <sup>3</sup> )	X	X	X

D,N

(Continued)

(TO BE INSERTED BY UTILITY)  
 ADVICE LETTER NO. 5920  
 DECISION NO. 20-12-031

ISSUED BY  
**Dan Skopec**  
 Vice President  
 Regulatory Affairs

(TO BE INSERTED BY CAL. PUC)  
 SUBMITTED Dec 30, 2021  
 EFFECTIVE Apr 13, 2022  
 RESOLUTION NO. \_\_\_\_\_

Rule No. 45

Sheet 28

STANDARD RENEWABLE GAS INTERCONNECTION

(Continued)

K. Renewable Gas Quality and Specifications (Continued)

2. a. (Continued)

<b>Table 1 (Continued)</b>						
<b>Maximum Constituent Concentrations</b>						
Hydrogen	0.10%	TBD <sup>5</sup>	TBD <sup>5</sup>	X	X	X
Mercury	0.08 mg/m <sup>3</sup>	TBD <sup>5</sup>	TBD <sup>5</sup>	X	X	X
Siloxanes	0.05 mg Si/m <sup>3</sup>	0.1 mg Si/m <sup>3</sup>	0.3 mg Si/m <sup>3</sup>	X	X	X

**Notes:**

1. Base Utility Gas Specifications are identified in K1.
2. Health Protective Constituents (HPC) are shown in Table V-3 of the CARB/OEHHA Report.
3. Integrity Protective Constituents are shown in Section 4.4.3.3 of D.14-01-034 and identified as pipeline integrity protective constituents.
4. Other organic sources, includes all Biogas sources other than landfill and dairy manure, including but not limited to, a sewage treatment plant or wastewater plant ("Publicly Owned Treatment Works" or "POTW").
5. The Lower and Upper Action Levels will be reviewed in the next update proceeding.
6. Testing requirement will be the stricter of the stated Renewable Gas values or other tariff requirements.
7. The Interconnector that meets this Rule's Section K.4.b certification requirements shall have reduced siloxanes testing requirements. Utility, at its discretion and at its own cost, may still test pursuant to Utility's applicable tariff rules. If the Utility test results show the siloxane levels exceed the Lower Action Level, the full siloxane testing requirements will apply as described in this Rule.

(Continued)

(TO BE INSERTED BY UTILITY)  
 ADVICE LETTER NO. 5920  
 DECISION NO. 20-12-031

ISSUED BY  
**Dan Skopec**  
 Vice President  
 Regulatory Affairs

(TO BE INSERTED BY CAL. PUC)  
 SUBMITTED Dec 30, 2021  
 EFFECTIVE Apr 13, 2022  
 RESOLUTION NO. \_\_\_\_\_

D,N

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(Continued)

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(TO BE INSERTED BY UTILITY)

ADVICE LETTER NO. 5920  
 DECISION NO. 20-12-031

ISSUED BY

**Dan Skopec**  
 Vice President  
 Regulatory Affairs

(TO BE INSERTED BY CAL. PUC)

SUBMITTED Dec 30, 2021  
 EFFECTIVE Apr 13, 2022  
 RESOLUTION NO. \_\_\_\_\_

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The following listed sheets contain all effective Schedules of Rates and Rules affecting service and information relating thereto in effect on the date indicated thereon.

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Table of Contents--Rate Schedules .....	59369-G,59395-G,59347-G
Table of Contents--List of Cities and Communities Served .....	58190-G
Table of Contents--List of Contracts and Deviations .....	58190-G
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(Continued)

(TO BE INSERTED BY UTILITY)  
 ADVICE LETTER NO. 5920  
 DECISION NO. 20-12-031

ISSUED BY  
**Dan Skopec**  
 Vice President  
 Regulatory Affairs

(TO BE INSERTED BY CAL. PUC)  
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