

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

Application **Not** for an Increase in Rates,
Pursuant to R.C. 4909.18

In the Matter of the Application of Co-)
lumbia Gas of Ohio, Inc. for Approval to) Case No. 20-1556-GA-ATA
Amend its Rules and Regulations for)
Service.)

**APPLICATION OF
COLUMBIA GAS OF OHIO, INC.**

1. APPLICANT RESPECTFULLY PROPOSES: (Check applicable proposals)

- | | |
|--|---|
| <input type="checkbox"/> New Service | <input type="checkbox"/> Change in Rule or Regulation |
| <input type="checkbox"/> New Classification | <input type="checkbox"/> Reduction in Rates |
| <input type="checkbox"/> Change in Classification | <input type="checkbox"/> Correction of Error |
| <input checked="" type="checkbox"/> Other, not involving increase in rates | <input type="checkbox"/> Various related and unrelated textual revision, without change in intent |

2. DESCRIPTION OF PROPOSAL:

Columbia Gas of Ohio, Inc. ("Columbia") proposes to amend its Rules and Regulations to incorporate into its tariffs changes to its gas quality standards. The changes requested mirror changes that were approved in Columbia's FERC Tariff on August 31, 2020. The gas quality standards proposed in this application will both align the PUCO Tariff with the FERC Tariff and allow Columbia to have a more comprehensive gas quality standard dependent upon the origin of natural gas entering Columbia's system.

3. TARIFF SHEET(S) AFFECTED: See Exhibit A.

4. ATTACHED HERETO AND MADE A PART HEREOF ARE:

 X Exhibit A – existing schedule sheets (to be superseded) if application is approved.

 X Exhibit B – proposed schedule sheets.

 X Exhibit B-1 – redline tariff sheets showing changes made to existing tariffs.

 Exhibit C-1

- a. if new service is proposed, describe;
- b. if new equipment is involved, describe (preferably with a picture, brochure, etc.) and where appropriate, a statement distinguishing proposed service from existing services;
- c. if proposed service results from customer requests, so state, giving, if available, the number and type of customers requesting proposed service.

 Exhibit C-2 – if a change of classification, rule or regulation is proposed, a statement explaining the reason for the change.

 X Exhibit C-3 – statement explaining the reason for any proposal not covered by Exhibit C-1 or Exhibit C-2.

5. This Application will not result in an increase in any rate, joint rate, toll, classification, charge or rental.

6. Columbia respectfully requests that the Commission expeditiously approve this Application and the proposed tariffs attached hereto.

Respectfully submitted by,

COLUMBIA GAS OF OHIO, INC.

/s/ Joseph M. Clark

Joseph M. Clark

Joseph M. Clark, Asst. Gen. Counsel
(0080711)

P.O. Box 117

290 W. Nationwide Blvd.

Columbus, Ohio 43216-0117

Telephone: (614) 460-6988

E-mail: josephclark@nisource.com

(Willing to accept service by e-mail)

Attorney for

COLUMBIA GAS OF OHIO, INC.

EXHIBIT A

COLUMBIA GAS OF OHIO, INC.

**RULES AND REGULATIONS GOVERNING THE DISTRIBUTION
AND SALE OF GAS**

on behalf of Customer to Company at point(s) of receipt with an interstate pipeline shall conform to the interstate pipeline's gas quality standards.

- B. **Quality of Gas at Other Point(s) of Receipt.** Gas delivered by or on behalf of Customer to Company at point(s) of receipt other than an interstate pipeline shall be commercially free from oil, water, air, salt, dust, gum, gum-forming constituents, harmful or noxious vapors, or other solid or liquid matter which might interfere with its merchantability or cause to or interference with proper operation of the lines, regulators, meters, and other equipment of Company or its customers.

Customer will indemnify and hold Company harmless from any suits, actions, debts, accounts, damages, costs, losses and expenses, including but not limited to, attorneys' fees and expenses, arising from personal injury, death, or damage to Company's equipment or facilities or arising from personal injuries, death, or damage to the facilities, products, or equipment of Company's other customers or third parties, or arising from additional hours worked by Company or its other customers or third parties, caused as a result of Customer's gas failing to meet the quality specifications set forth herein.

However, pursuant to the Commission's opinion and order in Case No. 85-1406-AU-COI, approval of the above tariff language by the Commission does not constitute a determination by the Commission that the limitation of liability imposed by the Company should be upheld in a court of law. Approval by the Commission merely recognizes that since it is a court's responsibility to adjudicate negligence and consequent damage claims, it is also the court's responsibility to determine the validity of the exculpatory clause.

To assure that the gas delivered by Customer to Company conforms to the quality specifications of this Section, Customer's gas shall be analyzed at the point(s) of receipt from time-to-time as Company deems necessary. Such analysis will be performed by Company at its expense. If, however, such analysis by Company discloses quality deficiencies, the cost of subsequent retesting to assure conformity with this Section shall be borne by Customer. The gas delivered shall not contain in excess of:

1. One percent (1%) by volume of oxygen,
2. Seven (7) pounds of water per million cubic feet of gas at the base pressure and temperature of fourteen and seventy-three hundredths (14.73) psia and sixty (60) degrees Fahrenheit. The water vapor will be determined by the use of the Bureau of Mines type dewpoint apparatus or in accordance with the latest approved methods generally in use in the natural gas industry;
3. Four percent (4%) by volume of nitrogen,
4. Two percent (2%) by volume of carbon dioxide,
3. Five percent (5%) by volume of a combined total of carbon dioxide and nitrogen components;

Filed Pursuant to PUCO Entry dated August 4, 2010 in Case No. 10-875-GA-ATA.

Issued: August 18, 2010

Effective: August 4, 2010

Issued By
J. W. Partridge Jr., Vice President

**RULES AND REGULATIONS GOVERNING THE DISTRIBUTION
AND SALE OF GAS**

3. Twenty-five hundredths (0.25) grains of hydrogen sulfide per one hundred (100) cubic feet of gas; and
4. Twenty (20) grains of total sulfur per one hundred (100) cubic feet of gas.

The Total Heating Value of the gas shall be determined by taking samples of the gas at the point(s) of receipt at such reasonable times as may be designated by Company. The Btu content per cubic foot shall be determined by an accepted type of calorimeter or other suitable instrument for a cubic foot of gas at a temperature of sixty (60) degrees Fahrenheit when saturated with water vapor and at a pressure of 14.73 psia. The Btu determination designated by Company shall be made by Company at its expense. Any additional Btu determinations requested by Customer shall be at Customer's expense.

Customer's gas delivered to Company shall have a total heating value of not less than nine hundred and sixty seven (967) Btu per standard cubic foot, and shall have a Utilization Factor of one thousand, three hundred (1,300) plus or minus six percent (6%). The Utilization Factor, as used herein, shall be the Btu content per cubic foot of the gas divided by the square root of the specific gravity of the gas. However, Company shall not be obligated to accept gas which it believes may adversely affect the standard of public utility service offered by Company, or gas which it believes may adversely affect the operation of the gas-burning equipment of its customers.

If any gas delivered hereunder fails to meet the quality specifications set forth herein, Company may, at any time, elect to refuse to accept all or any portions of such gas until Customer brings the gas into conformity with such specifications.

7. AUTHORIZED DAILY VOLUME

Customer's Authorized Daily Volume on any day consists of the sum of Customer's transported volumes (as determined herein) plus any Backup Service for which Customer has contracted, plus any additional volumes that Company, in its sole discretion, authorizes Customer to use on that day. Delivery of Customer's Authorized Daily Volume is firm, with no planned interruptions, except as provided in Part 8 hereof. Consumption at Customer's facility in excess of the Authorized Daily Volume is interruptible service, and upon notice to Customer, Company may require Customer to reduce consumption to Customer's Authorized Daily Volume whenever Company, in its discretion, deems necessary to do so. Company may, at its option, require such reductions in consumption by Large General Transportation Service Customers prior to imposing similar reductions on Small General and General Transportation Service Customers. The Authorized Daily Volume for an Aggregation Pool shall equal the sum of the Authorized Daily Volumes (including Backup Service) for each Customer in the Aggregation Pool.

Filed in accordance with Public Utilities Commission of Ohio Order dated August 4, 2010 in Case No. 10-875-GA-ATA.

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EXHIBIT B

RULES AND REGULATIONS GOVERNING THE DISTRIBUTION AND SALE OF GAS

on behalf of Customer to Company at point(s) of receipt with an interstate pipeline shall conform to the interstate pipeline's gas quality standards.

- B. Quality of Gas at Other Point(s) of Receipt.** Gas delivered by or on behalf of Customer to Company at point(s) of receipt other than an interstate pipeline shall be commercially free from oil, water, air, salt, dust, gum, gum-forming constituents, harmful or noxious vapors, or other solid or liquid matter which might interfere with its merchantability or cause to or interference with proper operation of the lines, regulators, meters, and other equipment of Company or its customers.

Customer will indemnify and hold Company harmless from any suits, actions, debts, accounts, damages, costs, losses and expenses, including but not limited to, attorneys' fees and expenses, arising from personal injury, death, or damage to Company's equipment or facilities or arising from personal injuries, death, or damage to the facilities, products, or equipment of Company's other customers or third parties, or arising from additional hours worked by Company or its other customers or third parties, caused as a result of Customer's gas failing to meet the quality specifications set forth herein.

However, pursuant to the Commission's opinion and order in Case No. 85-1406-AU-COI, approval of the above tariff language by the Commission does not constitute a determination by the Commission that the limitation of liability imposed by the Company should be upheld in a court of law. Approval by the Commission merely recognizes that since it is a court's responsibility to adjudicate negligence and consequent damage claims, it is also the court's responsibility to determine the validity of the exculpatory clause.

To assure that the gas delivered by Customer to Company conforms to the quality specifications of this Section, Customer's gas shall be analyzed at the point(s) of receipt from time-to-time as Company deems necessary. The gas delivered shall conform to the following gas quality specifications:

Gas Quality Specifications¹

Gas Quality Parameter Specification	Low	High
Heat Content (Btu/scf) ²	967	1110
Wobbe Number (+/- 4% from historical average gas, which is 1341 – 1383)	1287	1400
Water Vapor Content (lbs./MM scf)		< 7
Product Gas Mercaptans (ppmv, does not include gas odorants)		< 1
Hydrocarbon Dew Point, (°F) CHDP		15
Hydrogen Sulfide (grain/100 scf)		0.25
Total Sulfur (grain/100 scf)		20
Total Diluent Gases including the following individual constituent limits: Carbon Dioxide (CO ₂) 2% max Nitrogen (N) 4% max Oxygen (O ₂) 1% max		5%
Hydrogen		0.3%
Total Bacteria ³ (If no filter installed, then limit is 6.4x10 ⁷ per 100 scf total bacteria)	Comm Free (≤ 0.2 microns)	
Mercury	Comm Free (< 0.06 µg/m ³)	
Other Volatile Metals (Lead)	Comm Free (< 213 µg/m ³)	
Siloxanes as Octamethylcyclotetrasiloxane ⁴	Comm Free (< 0.5 mg Si/m ³)	
Ammonia	Comm Free (< 10 ppmv)	

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Vincent Parisi, President

COLUMBIA GAS OF OHIO, INC.

RULES AND REGULATIONS GOVERNING THE DISTRIBUTION AND SALE OF GAS

Gas Quality Specifications¹

Gas Quality Parameter Specification	Low	High
Non-Halogenated Semi-Volatile and Volatile Compounds	Comm Free (< 500 ppmv)	
Halocarbons (total measured halocarbons) ⁵	< 3 ppmv	
Aldehyde/Ketones	Aldehydes/Ketones must be at a level that does not unreasonably interfere with odorization of Company's gas.	
PCBs/Pesticides	Comm Free (< 1 ppbv)	

- For purposes of this Tariff, "Commercially Free" is defined as "Not Detectable" relative to typical pipeline gas flowing at the interconnect location that results in RNG being compositionally equivalent to flowing supplies. The analytical method, associated detection threshold, and testing facility shall be determined by the Company. Periodic testing will be required where potential Constituents of Concern are reasonably expected.
- Higher Heating Value is dry, @ 14.73 psia 60°F.
- An acceptable alternative to Total Bacteria testing would be to include installation of a 0.2 micron particulate filter, coupled with appropriate filter maintenance practices. Initial start-up testing may include filter effectiveness analysis. Customer shall be responsible for all costs associated with acceptable alternatives, including, but not limited to, initial start-up testing.
- Historical testing and data presented in this document include a siloxane detection threshold of <0.5mg Si/m³. Analytical methods have recently been improved resulting in a reduced detection threshold of <0.1mg Si/m³. Due to specific limitations of certain identified applications within an affected zone of influence, Company and Customer may agree upon a reduced threshold.
- Company may refuse to accept gas containing lower levels of halocarbons if Company reasonably determines that such gas is causing harm to its facilities or the gas-burning equipment of its customers, or is adversely affecting the operation of such facilities. In addition, Company and Customer may agree upon a different specification for halocarbons, provided that (1) Customer has delivered RNG to Company for a period of at least five years prior to the effective date of this tariff section, and (2) Customer has demonstrated, to the reasonable satisfaction of Company, that the RNG meeting the agreed-upon specification will not adversely affect (a) the quality of public utility service provided by Company; (b) the operation or Company's equipment; or (c) the operation of the gas-burning equipment of Company's customers.

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**RULES AND REGULATIONS GOVERNING THE DISTRIBUTION
AND SALE OF GAS**

As used in the foregoing table, "Btu" means British thermal unit; "scf" means standard cubic foot; "MM" means one million; "CHDP" means cricondenthem hydrocarbon dew point; "ppmv" means parts per million by volume; and "ppbv" means parts per billion by volume. As used in Section 6.2 and 6.3, "RNG" or "Renewable Natural Gas" means gas, consistently primarily of methane, which (1) is derived from biogas produced by landfills, animal farms, wastewater treatment plans, or other sources, and (2) is subsequently processed by removing carbon dioxide, nitrogen, and other constituents in order to convert the biogas into pipeline-compatible gaseous fuel.

The Total Heating Value of the gas shall be determined by taking samples of the gas at the point(s) of receipt at such reasonable times as may be designated by Company. The Btu content per cubic foot shall be determined by an accepted type of calorimeter or other suitable instrument for a cubic foot of gas at a temperature of sixty (60) degrees Fahrenheit when saturated with water vapor and at a pressure of 14.73 psia. The Btu determination designated by Company shall be made by Company at its expense. Any additional Btu determinations requested by Customer shall be at Customer's expense.

Company may, on a not-unduly discriminatory basis, accept volumes of gas, including renewable natural gas, that fail to meet the quality specifications set forth in this tariff section, if Company determines that it can do so without adversely affecting (1) system operations; (2) the operation of the Company's equipment; (3) the operation of gas-burning equipment of Company's other customers; or (4) the quality of public utility service provided by Company. In deciding whether to accept such volumes of gas, the Company shall consider, without limitation, (1) which specifications are not being met; (2) the sensitivity of customer equipment and potential impact on such equipment; (3) Customer's plan to improve gas quality; (4) the effect on system supply; (5) interchangeability; (6) the anticipated duration of the quality deviation; and (7) the blending ratio between geological natural gas and RNG in the area of Company's distribution system where RNG is being injected.

Company shall not be obligated to accept gas which it reasonably believes may adversely affect the standard of public utility service offered by Company, or gas which it reasonably believes may adversely affect the operation of its equipment or the gas-burning equipment of its customers. If any gas delivered hereunder fails to meet the quality specifications set forth herein, Company may, at any time, elect to refuse to accept all or any portions of such gas until Customer brings the gas into conformity with such specifications.

6.3. GAS QUALITY TESTING

Gas delivered to Company must be continuously monitored, at Customer's expense, to ensure it meets the quality specifications set forth in Section 6.2. Constituents that are not continuously monitored using currently-available technology must be tested in a laboratory once per year at Company's expense. If the quality of the gas, based on a laboratory test, does not meet the standards in Section 6.2, the gas must be tested in a laboratory monthly, at the Customer's expense, until the gas meets the standards in Section 6.2 for three consecutive months or the Customer otherwise demonstrates to the Company, in the Company's reasonable discretion, that it has remediated the constituent deficiency. Such tests shall include only the test method or methods that tests for the specific standard or standards that were not met, but Company may consider any results provided by such test method(s). Company will provide Customer with at least three (3) business days' notice of the tests described in this Section 6.3, and Customer will be given the opportunity to be present and observe such tests. Company may, at its option, require Customer to install automatic shutoff devices, at Customer's expense, to prevent gas that fails to meet the quality specifications set forth in Section 6.2 from entering Company's pipeline system.

Filed in accordance with Public Utilities Commission of Ohio Order dated in Case No. 20-1556-GA-ATA

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RULES AND REGULATIONS GOVERNING THE DISTRIBUTION AND SALE OF GAS

The scope of all gas testing shall follow the parameters below based on the origin of the gas. The parameters for each origin of gas are based on the source of gas and likelihood of a constituent being present in the source gas. The Company has the discretion to test for additional constituents on the list below, notwithstanding the origin of the gas, if the Company reasonably believes those constituents may be present.

Gas Quality Testing Parameters and Scope¹

Gas Quality Parameter	Testing Method ²	Origin of Gas			
		Geological	Landfill	Agricultural and Clean Energy	Waste Water Treatment Plant
Heat Content	In-field	X	X	X	X
Wobbe Number	In-field	X	X	X	X
Water Vapor Content	In-field	X	X	X	X
Product Gas Mercaptans	In-field	X	X	X	X
Hydrocarbon Dew Point	In-field	X	X	X	X
Hydrogen Sulfide	In-field or Lab	X	X	X	X
Total Sulfur	In-field or Lab	X	X	X	X
Total Diluent Gases including: Carbon Dioxide (CO ₂) Nitrogen (N) Oxygen (O ₂)	In-field	X	X	X	X
Hydrogen	Lab	X	X	X	X
Total Bacteria	Lab	X	X	X	X
Mercury	Lab		X		X
Other Volatile Metals (Lead)	Lab		X		
Siloxanes	Lab		X		X
Ammonia	Lab		X		X
Non-Halogenated Semi-volatile and Volatile Compounds	Lab		X		X
Halocarbons (total measured halocarbons)	Lab		X		X
Aldehyde/Ketones	Lab		X		
PCBs/Pesticides	Lab		X		

¹ Constituents to be tested for each category of gas are indicated with an "X."

² Testing method is defined as "In-Field" or "Lab." "In-Field" testing requires the Customer's use of readily available, continuously testing, industry-standard equipment, which has been reviewed and approved by Company. "Lab" testing requires the Customer and the Company to coordinate the sampling of gas and sending it to a laboratory for testing and analysis.

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**RULES AND REGULATIONS GOVERNING THE DISTRIBUTION
AND SALE OF GAS**

7. AUTHORIZED DAILY VOLUME

Customer's Authorized Daily Volume on any day consists of the sum of Customer's transported volumes (as determined herein) plus any Backup Service for which Customer has contracted, plus any additional volumes that Company, in its sole discretion, authorizes Customer to use on that day. Delivery of Customer's Authorized Daily Volume is firm, with no planned interruptions, except as provided in Part 8 hereof. Consumption at Customer's facility in excess of the Authorized Daily Volume is interruptible service, and upon notice to Customer, Company may require Customer to reduce consumption to Customer's Authorized Daily Volume whenever Company, in its discretion, deems necessary to do so. Company may, at its option, require such reductions in consumption by Large General Transportation Service Customers prior to imposing similar reductions on Small General and General Transportation Service Customers. The Authorized Daily Volume for an Aggregation Pool shall equal the sum of the Authorized Daily Volumes (including Backup Service) for each Customer in the Aggregation Pool.

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EXHIBIT B-1

COLUMBIA GAS OF OHIO, INC.
Sheet No. 37

RULES AND REGULATIONS GOVERNING THE DISTRIBUTION AND SALE OF GAS

on behalf of Customer to Company at point(s) of receipt with an interstate pipeline shall conform to the interstate pipeline's gas quality standards.

- B. **Quality of Gas at Other Point(s) of Receipt.** Gas delivered by or on behalf of Customer to Company at point(s) of receipt other than an interstate pipeline shall be commercially free from oil, water, air, salt, dust, gum, gum-forming constituents, harmful or noxious vapors, or other solid or liquid matter which might interfere with its merchantability or cause to or interference with proper operation of the lines, regulators, meters, and other equipment of Company or its customers.

Customer will indemnify and hold Company harmless from any suits, actions, debts, accounts, damages, costs, losses and expenses, including but not limited to, attorneys' fees and expenses, arising from personal injury, death, or damage to Company's equipment or facilities or arising from personal injuries, death, or damage to the facilities, products, or equipment of Company's other customers or third parties, or arising from additional hours worked by Company or its other customers or third parties, caused as a result of Customer's gas failing to meet the quality specifications set forth herein.

However, pursuant to the Commission's opinion and order in Case No. 85-1406-AU-COI, approval of the above tariff language by the Commission does not constitute a determination by the Commission that the limitation of liability imposed by the Company should be upheld in a court of law. Approval by the Commission merely recognizes that since it is a court's responsibility to adjudicate negligence and consequent damage claims, it is also the court's responsibility to determine the validity of the exculpatory clause.

To assure that the gas delivered by Customer to Company conforms to the quality specifications of this Section, Customer's gas shall be analyzed at the point(s) of receipt from time-to-time as Company deems necessary. ~~Such analysis will be performed by Company at its expense. If, however, such analysis by Company discloses quality deficiencies, the cost of subsequent retesting to assure conformity with this Section shall be borne by Customer.~~ The gas delivered shall conform to the following gas quality specifications not contain in excess of:

Gas Quality Specifications¹

<u>Gas Quality Parameter Specification</u>	<u>Low</u>	<u>High</u>
<u>Heat Content (Btu/scf)²</u>	<u>967</u>	<u>1110</u>
<u>Wobbe Number (+/- 4% from historical average gas, which is 1341 – 1383)</u>	<u>1287</u>	<u>1400</u>
<u>Water Vapor Content (lbs./MM scf)</u>		<u><7</u>
<u>Product Gas Mercaptans (ppmv, does not include gas odorants)</u>		<u><1</u>
<u>Hydrocarbon Dew Point, (°F) CHDP</u>		<u>15</u>
<u>Hydrogen Sulfide (grain/100 scf)</u>		<u>0.25</u>
<u>Total Sulfur (grain/100 scf)</u>		<u>20</u>
<u>Total Diluent Gases including the following individual constituent limits:</u> <u>Carbon Dioxide (CO₂) 2% max</u> <u>Nitrogen (N) 4% max</u> <u>Oxygen (O₂) 1% max</u>		<u>5%</u>
<u>Hydrogen</u>		<u>0.3%</u>
<u>Total Bacteria³ (If no filter installed, then limit is 6.4x10⁷ per 100 scf total bacteria)</u>	<u>Comm Free (< 0.2 microns)</u>	
<u>Mercury</u>	<u>Comm Free (< 0.06 µg/m³)</u>	
<u>Other Volatile Metals (Lead)</u>	<u>Comm Free (< 213 µg/m³)</u>	

Filed Pursuant to PUCO Entry dated August 4, 2010 in Case No. 1020-____ 875-GA-ATA.

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Issued By
J.-W. Partridge Jr. Vincent Parisi, Vice President

COLUMBIA GAS OF OHIO, INC.
 Sheet No. 37

**RULES AND REGULATIONS GOVERNING THE DISTRIBUTION
 AND SALE OF GAS**

<u>Siloxanes as Octamethylcyclotetrasiloxane⁴</u>	<u>Comm Free (< 0.5 mg Si/m³)</u>
<u>Ammonia</u>	<u>Comm Free (< 10 ppmv)</u>

1. ~~One percent (1%) by volume of oxygen,~~
2. ~~Seven (7) pounds of water per million cubic feet of gas at the base pressure and temperature of fourteen and seventy three hundredths (14.73) psia and sixty (60) degrees Fahrenheit. The water vapor will be determined by the use of the Bureau of Mines type dewpoint apparatus or in accordance with the latest approved methods generally in use in the natural gas industry;~~
3. ~~Four percent (4%) by volume of nitrogen,~~
4. ~~Two percent (2%) by volume of carbon dioxide,~~
3. ~~Five percent (5%) by volume of a combined total of carbon dioxide and nitrogen components;~~

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COLUMBIA GAS OF OHIO, INC.

RULES AND REGULATIONS GOVERNING THE DISTRIBUTION AND SALE OF GAS

Gas Quality Specifications¹

<u>Gas Quality Parameter Specification</u>	<u>Low</u>	<u>High</u>
<u>Non-Halogenated Semi-Volatile and Volatile Compounds</u>	<u>Comm Free (< 500 ppmv)</u>	
<u>Halocarbons (total measured halocarbons)⁵</u>	<u>< 3 ppmv</u>	
<u>Aldehyde/Ketones</u>	<u>Aldehydes/Ketones must be at a level that does not unreasonably interfere with odorization of Company's gas.</u>	
<u>PCBs/Pesticides</u>	<u>Comm Free (< 1 ppbv)</u>	

1. For purposes of this Tariff, "Commercially Free" is defined as "Not Detectable" relative to typical pipeline gas flowing at the interconnect location that results in RNG being compositionally equivalent to flowing supplies. The analytical method, associated detection threshold, and testing facility shall be determined by the Company. Periodic testing will be required where potential Constituents of Concern are reasonably expected.
2. Higher Heating Value is dry, @ 14.73 psia 60°F.
3. An acceptable alternative to Total Bacteria testing would be to include installation of a 0.2 micron particulate filter, coupled with appropriate filter maintenance practices. Initial start-up testing may include filter effectiveness analysis. Customer shall be responsible for all costs associated with acceptable alternatives, including, but not limited to, initial start-up testing.
4. Historical testing and data presented in this document include a siloxane detection threshold of <0.5mg Si/m³. Analytical methods have recently been improved resulting in a reduced detection threshold of <0.1mg Si/m³. Due to specific limitations of certain identified applications within an affected zone of influence, Company and Customer may agree upon a reduced threshold.
5. Company may refuse to accept gas containing lower levels of halocarbons if Company reasonably determines that such gas is causing harm to its facilities or the gas-burning equipment of its customers, or is adversely affecting the operation of such facilities. In addition, Company and Customer may agree upon a different specification for halocarbons, provided that (1) Customer has delivered RNG to Company for a period of at least five years prior to the effective date of this tariff section, and (2) Customer has demonstrated, to the reasonable satisfaction of Company, that the RNG meeting the agreed-upon specification will not adversely affect (a) the quality of public utility service provided by Company; (b) the operation or Company's equipment; or (c) the operation of the gas-burning equipment of Company's customers.
 1. One percent (1%) by volume of oxygen,
 2. Seven (7) pounds of water per million cubic feet of gas at the base pressure and temperature of fourteen and seventy three hundredths (14.73) psia and sixty (60) degrees Fahrenheit. The water vapor will be determined by the use of the Bureau of Mines type dewpoint apparatus or in accordance with the latest approved methods generally in use in the natural gas industry;
 3. Four percent (4%) by volume of nitrogen,
 4. Two percent (2%) by volume of carbon dioxide,
 3. Five percent (5%) by volume of a combined total of carbon dioxide and nitrogen components;

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RULES AND REGULATIONS GOVERNING THE DISTRIBUTION AND SALE OF GAS

~~3. Twenty five hundredths (0.25) grains of hydrogen sulfide per one hundred (100) cubic feet of gas; and~~

~~4. Twenty (20) grains of total sulfur per one hundred (100) cubic feet of gas.~~

As used in the foregoing table, "Btu" means British thermal unit; "scf" means standard cubic foot; "MM" means one million; "CHDP" means cricondenthem hydrocarbon dew point; "ppmv" means parts per million by volume; and "ppbv" means parts per billion by volume. As used in Section 6.2 and 6.3, "RNG" or "Renewable Natural Gas" means gas, consistently primarily of methane, which (1) is derived from biogas produced by landfills, animal farms, wastewater treatment plans, or other sources, and (2) is subsequently processed by removing carbon dioxide, nitrogen, and other constituents in order to convert the biogas into pipeline-compatible gaseous fuel.

The Total Heating Value of the gas shall be determined by taking samples of the gas at the point(s) of receipt at such reasonable times as may be designated by Company. The Btu content per cubic foot shall be determined by an accepted type of calorimeter or other suitable instrument for a cubic foot of gas at a temperature of sixty (60) degrees Fahrenheit when saturated with water vapor and at a pressure of 14.73 psia. The Btu determination designated by Company shall be made by Company at its expense. Any additional Btu determinations requested by Customer shall be at Customer's expense.

Company may, on a not-unduly discriminatory basis, accept volumes of gas, including renewable natural gas, that fail to meet the quality specifications set forth in this tariff section, if Company determines that it can do so without adversely affecting (1) system operations; (2) the operation of the Company's equipment; (3) the operation of gas-burning equipment of Company's other customers; or (4) the quality of public utility service provided by Company. In deciding whether to accept such volumes of gas, the Company shall consider, without limitation, (1) which specifications are not being met; (2) the sensitivity of customer equipment and potential impact on such equipment; (3) Customer's plan to improve gas quality; (4) the effect on system supply; (5) interchangeability; (6) the anticipated duration of the quality deviation; and (7) the blending ratio between geological natural gas and RNG in the area of Company's distribution system where RNG is being injected.

~~Customer's gas delivered to Company shall have a total heating value of not less than nine hundred and sixty seven (967) Btu per standard cubic foot, and shall have a Utilization Factor of one thousand, three hundred (1,300) plus or minus six percent (6%). The Utilization Factor, as used herein, shall be the Btu content per cubic foot of the gas divided by the square root of the specific gravity of the gas. However, Company shall not be obligated to accept gas which it believes may adversely affect the standard of public utility service offered by Company, or gas which it believes may adversely affect the operation of the gas-burning equipment of its customers.~~

Company shall not be obligated to accept gas which it reasonably believes may adversely affect the standard of public utility service offered by Company, or gas which it reasonably believes may adversely affect the operation of its equipment or the gas-burning equipment of its customers. If any gas delivered hereunder fails to meet the quality specifications set forth herein, Company may, at any time, elect to refuse to accept all or any portions of such gas until Customer brings the gas into conformity with such specifications.

6.3. GAS QUALITY TESTING

Gas delivered to Company must be continuously monitored, at Customer's expense, to ensure it meets the quality specifications set forth in Section 6.2. Constituents that are not continuously monitored using currently-available

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technology must be tested in a laboratory once per year at Company's expense. If the quality of the gas, based on a laboratory test, does not meet the standards in Section 6.2, the gas must be tested in a laboratory monthly, at the Customer's expense, until the gas meets the standards in Section 6.2 for three consecutive months or the Customer otherwise demonstrates to the Company, in the Company's reasonable discretion, that it has remediated the constituent deficiency. Such tests shall include only the test method or methods that tests for the specific standard or standards that were not met, but Company may consider any results provided by such test method(s). Company will provide Customer with at least three (3) business days' notice of the tests described in this Section 6.3, and Customer will be given the opportunity to be present and observe such tests. Company may, at its option, require Customer to install automatic shutoff devices, at Customer's expense, to prevent gas that fails to meet the quality specifications set forth in Section 6.2 from entering Company's pipeline system.

7. AUTHORIZED DAILY VOLUME

~~Customer's Authorized Daily Volume on any day consists of the sum of Customer's transported volumes (as determined herein) plus any Backup Service for which Customer has contracted, plus any additional volumes that Company, in its sole discretion, authorizes Customer to use on that day. Delivery of Customer's Authorized Daily Volume is firm, with no planned interruptions, except as provided in Part 8 hereof. Consumption at Customer's facility in excess of the Authorized Daily Volume is interruptible service, and upon notice to Customer, Company may require Customer to reduce consumption to Customer's Authorized Daily Volume whenever Company, in its discretion, deems necessary to do so. Company may, at its option, require such reductions in consumption by Large General Transportation Service Customers prior to imposing similar reductions on Small General and General Transportation Service Customers. The Authorized Daily Volume for an Aggregation Pool shall equal the sum of the Authorized Daily Volumes (including Backup Service) for each Customer in the Aggregation Pool.~~

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The scope of all gas testing shall follow the parameters below based on the origin of the gas. ~~The parameters for each origin of the gas.~~ The parameters for each origin of gas are based on the source of gas and likelihood of a constituent being present in the source gas. The Company has the discretion to test for additional constituents on the list below, notwithstanding the origin of the gas, if the Company reasonably believes those constituents may be present.

Gas Quality Testing Parameters and Scope¹

<u>Gas Quality Parameter</u>	<u>Testing Method²</u>	<u>Origin of Gas</u>			
		<u>Geological</u>	<u>Landfill</u>	<u>Agricultural and Clean Energy</u>	<u>Waste Water Treatment Plant</u>
<u>Heat Content</u>	<u>In-field</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>Wobbe Number</u>	<u>In-field</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>Water Vapor Content</u>	<u>In-field</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>Product Gas Mercaptans</u>	<u>In-field</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>Hydrocarbon Dew Point</u>	<u>In-field</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>Hydrogen Sulfide</u>	<u>In-field or Lab</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>Total Sulfur</u>	<u>In-field or Lab</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>Total Diluent Gases including:</u> <u>Carbon Dioxide (CO₂)</u> <u>Nitrogen (N)</u> <u>Oxygen (O₂)</u>	<u>In-field</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>Hydrogen</u>	<u>Lab</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>Total Bacteria</u>	<u>Lab</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>Mercury</u>	<u>Lab</u>		<u>X</u>		<u>X</u>
<u>Other Volatile Metals (Lead)</u>	<u>Lab</u>		<u>X</u>		
<u>Siloxanes</u>	<u>Lab</u>		<u>X</u>		<u>X</u>
<u>Ammonia</u>	<u>Lab</u>		<u>X</u>		<u>X</u>
<u>Non-Halogenated Semi-volatile and Volatile Compounds</u>	<u>Lab</u>		<u>X</u>		<u>X</u>
<u>Halocarbons (total measured halocarbons)</u>	<u>Lab</u>		<u>X</u>		<u>X</u>
<u>Aldehyde/Ketones</u>	<u>Lab</u>		<u>X</u>		
<u>PCBs/Pesticides</u>	<u>Lab</u>		<u>X</u>		

¹Constituents to be tested for each category of gas are indicated with an "X."

² Testing method is defined as "In-Field" or "Lab." "In-Field" testing requires the Customer's use of readily available, continuously testing, industry-standard equipment, which has been reviewed and approved by Company. "Lab" testing requires the Customer and the Company to coordinate the sampling of gas and sending it to a laboratory for testing and analysis.

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EXHIBIT C-3

Exhibit C-3
Statement Explaining the Reason for the Proposal

In FERC Docket No. PR20-32-001, Columbia Gas of Ohio, Inc. (“Columbia”) proposed to amend its FERC tariff, known as a “Statement of Operating Conditions,” to reflect a more comprehensive gas quality standard to capture multiple origins of natural gas supply that may enter its system. FERC approved these proposed changes by Order issued on August 31, 2020. To ensure that Columbia’s PUCO Tariff mirrors that of its FERC Tariff, Columbia is proposing the gas quality changes enclosed in Exhibit A, B, and B-1.

More specifically, these changes provide for a more detailed list of particulate and chemical compounds and levels that Columbia will require any gas to meet when introduced to its system. Likewise, these standards provide for a more formalized gas quality testing methodology to ensure that any supplier providing gas to Columbia’s system has a clear understanding of testing requirements. Finally, the standards set forth the multiple origins of natural gas supply and define which chemical and particulate standards would likely apply to the natural gas origin.

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