

NOTE: THIS MEASUREMENT PROCEDURE IS STANDARD LANGUAGE ATTACHED TO ALL CO<sub>2</sub> AGREEMENTS. AS SUCH, SOME PROVISIONS MAY NOT APPLY. ANY EXCEPTION TO THIS LANGUAGE MUST BE IN THE BASE AGREEMENT.

**EXHIBIT**  
**ENTERPRISE**  
**SUPERCritical CARBON DIOXIDE (CO<sub>2</sub>) MEASUREMENT PROCEDURES**

- 1) Acronyms and Definitions
  - a) **“AGA”** means American Gas Association.
  - b) **“Agreement”** means the agreement to which this Exhibit is attached.
  - c) **“API”** means American Petroleum Institute.
  - d) **“ASTM”** means ASTM International.
  - e) **“CO<sub>2</sub>”** means carbon dioxide as defined in the Agreement.
  - f) **“Customer”** means the customer (as defined in the Agreement), its affiliates, its designees, or its inspector.
  - g) **“Day”** means a period commencing at a local time on one calendar day agreed on by all Parties involved and ending at the same time on the next calendar day.
  - h) **“DB&B”** means double block and bleed.
  - i) **“Enterprise”** means the Enterprise Products Partners L.P. affiliate contracting in the Agreement.
  - j) **“Flowing Day”** means a day during which Product actually flows.
  - k) **“Force Majeure”** is defined in the Agreement.
  - l) **“GPA”** means GPA Midstream.
  - m) **“Meter Run”** has the means set forth in Section 2 below.
  - n) **“Meter Verification”** applies to Coriolis meters and means the use of proprietary software to:
    - i) Provides in-process flow meter health verification by analyzing the meter components related to measurement performance; and
    - ii) Evaluate other physical Coriolis meter characteristics.
  - o) **“MMB”** means Enterprise Measurement and Material Balance Department.
  - p) **“MPMS”** means the API Manual of Petroleum Measurement Standards.
  - q) **“Party”** or **“Parties”** refers to Enterprise and/or the Customer, as the case may be.
  - r) **“psig”** means pounds per square inch gauge.
  - s) **“Requesting Party”** means the Party requesting the applicable data.
  - t) **“Sending Party”** means the Party providing the applicable data.
- 2) Design and Installation
  - a) General
    - i) Enterprise’s intent is to design, operate, and maintain its custody transfer measurement facilities in a manner to meet or exceed the criteria set out in the MPMS, GPA standards, ASTM standards, relevant governmental regulations, the Liquid Measurement Policy, MMB standards, Enterprise Engineering standards, and other relevant Enterprise policies and standards, all as of the date of the Agreement.
    - ii) CO<sub>2</sub> shall be measured by mass measurement procedures using dual Coriolis meters in series (“Meter Run”).

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- iii) The measuring facility shall be operated at a pressure greater than 1,600 Psig. A backpressure control valve shall be installed at the outlet of the Meter Run to assure the product is in the supercritical range.
  - iv) Bi-directional flow through the Meter Run is not allowed unless approved by MMB. Unless otherwise approved by MMB, bi-directional flow shall be accomplished by valving.
  - v) All equipment employed in metering and sampling, and all equipment that might affect quantity and/or quality determination, shall be approved by MMB. Due consideration shall be given to the operating pressure, temperature, and other characteristics of the Product being measured.
  - vi) Enterprise reserves the right to implement any changes to these publications based on Enterprise's cost-benefit analysis of the change, the ready availability of equipment necessary to make the change, or such other assessment as Enterprise, in its sole discretion, may deem appropriate.
- b) Flow Meters
- i) The Meter Runs shall be installed in accordance with AGA Report No. 11, API MPMS Chapter 14, the MPMS, the Liquid Measurement Policy, MMB Standards, and Enterprise Engineering standards.
  - ii) The Meter Runs shall include sufficient valving to allow for the isolation of a particular Meter Run. Any valve, vent, drain or branch in the direct flow path of the parallel Meter Runs shall be isolated by methods that allow positive verification of isolation (e.g., DB&B valves). The first Coriolis meter in the Meter Run shall be the custody meter and the second Coriolis meter shall be the check (reference) meter.
  - iii) Each Coriolis meter shall be installed with adequate instrumentation to allow for the implementation of pressure compensation.
- c) Density
- i) If required, density shall be determined by a Coriolis meter in the Meter Run, or such other method as Enterprise, in its sole discretion, may determine. Such other method may include, but is not limited to, the methods outlined in MPMS 9.4, and an equation of state.
- d) Pressure Transmitters
- i) Pressure transmitters must exhibit a discrimination of 1.0 psig or better.
  - ii) Pressure transmitters shall be verified at the end device at the time of meter calibration and verification. The variation between the end device reading and the reference gauge must not exceed 3.0 psig.
- e) Temperature Transmitters
- i) Temperature transmitters must exhibit a discrimination of 0.1°F or better.
  - ii) Temperature transmitters shall be verified at the end device at the time of meter calibration and verification using a certified thermometer or a precision electronic temperature device. The variation between the end device reading and the certified thermometer or precision electronic temperature device must not exceed 0.2°F.
- f) Flow Computers

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- i) Unless otherwise approved by MMB, all CO<sub>2</sub> metering systems shall have an MMB approved flow computer.
- ii) Security shall be implemented on the flow computer to prevent access from unauthorized personnel.
- iii) Flow computers shall be capable of accepting a variety of signals, including, but not limited to, pulses from the flow meter, signals from the density transmitter (if installed), and signals from the pressure and temperature transmitters. The flow computer shall convert, as required, and totalize these signals into flow weighted pressure, flow weighted temperature, and flowing density.
- g) Meter Security and Sealing
  - i) Where required by contract or governmental regulation, or site-specific situations, measurement systems shall be designed to facilitate sealing all components that can directly affect quantity and quality determination.
  - ii) Site specific sealing requirements shall be determined by Enterprise operations personnel upon start up and may require additional seal points.
  - iii) Enterprise operations personnel shall determine who is authorized to remove Enterprise locks and seals.
  - iv) Enterprise considers the unauthorized removal of or tampering with measurement and security devices as sufficient justification to suspend transfer operations until the purpose and effect of such actions are determined and resolved.
- 3) Use of Inspector
  - a) Without limiting either Party's rights to witness the other Party's measurement activities (as described below), the non-measuring Party may, at its own cost, hire and appoint an inspector to perform the witnessing measurement activities.
- 4) Calibration and Verification Tolerances
  - a) If the CO<sub>2</sub> mass measured by the two Coriolis meters in a Meter Run differs by more than 0.50% (on a daily basis), the Enterprise technician shall trouble shoot both meters to determine what actions to take. The Enterprise technician may perform a zero calibration or such other action as he deems necessary. If the Enterprise technician determines the custody meter should be pulled, the check meter shall serve as the custody meter while the original custody meter is out of service.
  - b) All measurement activities including, but not limited to, calibration of instruments, and maintenance of measurement equipment will normally be performed by Enterprise personnel or delegated to 3<sup>rd</sup> party contractors under the direction of an Enterprise representative.
  - c) If the Customer's representative is not available, upon request, Enterprise shall: (a) provide a copy of the testing report to the Customer's representative; and (b) within two (2) business Days: (i) notify the Customer of findings; (ii) provide the Customer with a meter verification report stating findings, method of repair (if any), and calculations used in making any correction; and (iii) provide the Customer with a correction ticket for the amount corrected.
  - d) Calibration Intervals

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- i) Coriolis meters shall be Verified at least every ninety (90) Flowing Days, as well as before and after any repair or maintenance. The ninety (90) Flowing Days may be extended to one-hundred twenty (120) Flowing Days if operational or weather issues warrant. Regardless, when CO<sub>2</sub> is flowing, a Coriolis meter shall be Verified at least every 180 days. Should a meter fail the Verification process, the Enterprise technician shall troubleshoot the meter to determine what action(s) to take.
- ii) A Party may request a special calibration or verification of measurement equipment. In the event a Party desires a special test (a test not scheduled under the foregoing paragraphs), at least seventy-two (72) hours' advance notice shall be given to the other Party and both Parties shall cooperate to secure a mutually agreeable date and time for the test. If the measuring equipment tests result in a change in mass measurement of less than or equal to one-half of one percent (0.5%), or if an inspection of the primary measurement equipment indicates no problems, the Party which requested the test shall pay the costs of such special test including any labor and transportation costs pertaining thereto. If the measuring equipment tests result in a change in mass measurement of greater than one-half of one percent (0.5%), or if an inspection of the primary measurement equipment indicates a problem, the Party responsible for such measurement shall pay such costs and perform the corrections according to this Section.
- iii) If, during any test of the measuring equipment, an adjustment or calibration error is found which results in an incremental adjustment to the calculated hourly mass flow which does not exceed limits stated above, all prior recordings and electronic flow computer data shall be considered accurate for quantity determination purposes.

5) Ticket Corrections:

- a) The measurement technician shall record all required corrections to measured mass and shall describe the findings, method of repair, and calculations used in making the correction on the meter inspection report. A correction ticket for the amount of the correction shall be issued, provided, however, no ticket correction shall exceed the lesser of the number of Flowing Days since the previous calibration or, if the date of malfunction can be determined, the number of Flowing Days since the said malfunction and the current calibration date.

6) Custody Measurement Station Failure

- a) If a failure occurs on a custody measurement station or the station is out of service while Product is being delivered, then the volume shall be determined or estimated by one of the following methods and in the order stated:
  - i) By using the data recorded by any check measurement equipment that was accurately registering;
  - ii) By correcting the error if the percentage error can be ascertained by calibrations, tests, or mathematical calculations;
  - iii) By using historical pipeline gain/loss; or
  - iv) By using such other method as the Parties may agree.

7) Sampling

- a) Composite sampling is required.

8) On-line Analyzers

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- a) MMB shall determine the on-line analyzer(s) (if any ) required to determine CO<sub>2</sub> quality and quantity.
  - b) The on-line analyzer shall be installed to determine if the CO<sub>2</sub> meets the Enterprise specification for the CO<sub>2</sub> per the appropriate Enterprise test method(s). The sample probe shall be located at a point where the flowing stream is well mixed and homogenous. The probe tip, or sampling point, shall be located within the center one-third (1/3) of the pipe diameter.
- 9) Quality Testing: Where the CO<sub>2</sub> specification allows multiple test methods, Enterprise, in its sole discretion, shall determine the preferred test method. Enterprise reserves the right to, from time to time, modify or change the preferred test method, provided any modification may not reduce the repeatability or reproducibility of the test method, and, provided any change in test method is driven by industry practice, governmental regulations or the reasonable operational requirements of Enterprise. Any such modification or change shall be made on a non-discriminatory basis to similarly situated customers, and such modification or change shall become effective thirty (30) days after written notice of the changes is sent to the Customer).

#### 10) Ticketing

##### a) General:

- i) The measuring Party shall be responsible for preparation of the ticket. A copy of the ticket shall be given to the other Party when generated or the commencement of the next business Day.
- ii) The measuring Party shall provide the other Party with a ticket at the end of batch.
- iii) The batch may be closed on either quantity or time, depending on the Agreement. For a batch closed on time, the batch shall be closed at the start of Day on the first Day of the next period (e.g., month) as determined by Enterprise or as agreed to by the Parties.
- iv) The ticket shall:
  - (1) Identify the product;
  - (2) State the total mass measured in pounds;
  - (3) Show the pounds of each product based on its weight fraction as determined by analysis (if required); and
  - (4) Show product analysis; and

- b) Ticket support documentation shall be produced and retained by the measuring Party in accordance with industry standards and the audit provisions of this Exhibit. The measuring Party shall not refuse any reasonable request from the non-measuring Party to receive copies of the supporting documentation. The copies of the supporting documentation shall be provided within 10 business Days following any such request.

#### 11) Witnessing

- a) Each Party agrees to allow the other Party to witness all measurement activities including, but not limited to, testing, and calibration of measurement equipment under this Agreement.
- b) For scheduled measurement activities, if requested by the non-proving party, the measuring Party agrees to provide the other Party 72 hours' notice.

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12) Data Exchange

a) Data Access

- i) The Requesting Party may have access to the Sending Party's electronic measurement equipment for the purpose of acquiring the data listed below.
- ii) The Requesting Party will only have access to such electronic measurement data in a format reasonably established by the Sending Party, and such access shall not interfere with the operation of the Sending Party's facilities.
- iii) The Requesting Party recognizes the data acquired from any electronic equipment is "raw" data, subject to further refinement, correction, and/or interpretation.
- iv) The Sending Party has no obligation to provide data to the Requesting Party during times of maintenance, repair, or other activities by the Sending Party that interrupt operations, or due to events of Force Majeure.
- v) The Sending Party has no obligation to advise the Requesting Party of any such interruptions, or otherwise to verify the integrity of such data at any time.
- vi) The Sending Party shall make necessary connections to its electronic measurement equipment to provide the Requesting Party with the following categories of data:
  - (1) Pressure;
  - (2) Temperature;
  - (3) Instantaneous mass flow;
  - (4) Total mass flow today;
  - (5) Valve status and permissives; and
  - (6) Such other data as the Parties may agree to in writing.
- vii) Data transfer will occur via a serial data link between the Parties. The Requesting Party shall be responsible for the data and communications beyond this connection.

13) Audit Rights

- a) The Party owning the measurement equipment shall retain and preserve all test data, charts, and similar records for any calendar year for a period of at least twenty-four (24) Months following the end of such calendar year unless applicable law or regulation requires a longer time period or the Party has received written notification of a dispute involving such records, in which case records shall be retained until the related issue is resolved.
- b) Each Party and its duly authorized representatives shall have access (as provided below) to the measurement records and other documents maintained by the other Party which relate to the measurement, composition, or handling of the Products being delivered under the Agreement.
- c) Each Party shall have the right to audit such records once a year at any reasonable time or times within 24 months of the rendition of any statement or invoice forming the basis of such claim.
- d) Neither Party shall make claim on the other for any adjustment after the 24-month period.
- e) The Party requesting the audit must give the other Party at least 30 Days' written notice.
- f) No audit may cover a period that has previously been audited.

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14) Presumed Correct

- a) Except in the case of manifest error, fraud, or as provided in “Dispute,” the Enterprise’s results shall be presumed correct and binding on both Parties.

15) Disputes

a) Quantity Measurement:

- i) If both the Enterprise measurement facility and the Customer measurement facility are installed, operated, and maintained according to their respective measurement standard, and the difference in measurement of quantity is less than or equal to an absolute value of 0.50%, Enterprise’s measurement shall be deemed correct.
- ii) If the difference is more than an absolute value of 0.50%, the Parties shall resolve the disputes as provided in (c) below.

b) Analytical Measurement

- i) Analytical disputes must be based upon laboratory analysis utilizing the appropriate Enterprise approved test method. After analyzing their respective samples according to the Enterprise approved test method, if the Parties disagree, each shall send the other a copy of their respective sample results, and, if the sample results differ by more than the test method’s reproducibility limits for one or more components, then the referee sample shall be sent to a mutually agreed upon independent 3<sup>rd</sup> party laboratory, which shall analyze the sample using the Enterprise approved test method. If the 3<sup>rd</sup> party laboratory and the Enterprise analyses are within the test method’s reproducibility limits for the components in question, then the Enterprise analysis shall be accepted by the Customer and Enterprise as final and conclusive for the composition of the stream. Otherwise, the 3<sup>rd</sup> party laboratory results shall be accepted by the Customer and Enterprise as final and conclusive for the composition of the stream.

c) Other Measurement Disputes and Dispute Resolution

- i) If there is any other dispute, controversy, or claim arising out of or relating to this Exhibit (a “Measurement Dispute”), the Parties shall attempt to settle such Measurement Dispute by negotiation between executives who have authority to settle the Measurement Dispute.
- ii) A Party shall deliver to the other Party a written notice (a “Notice of Measurement Dispute”) to commence this process of mutual discussions.
- iii) Within 15 Days of the delivery of Notice of Measurement Dispute, the receiving Party shall submit to the other Party a written response.
- iv) The Notice of Measurement Dispute and the response must include:
  - (1) A statement of the respective Party’s position;
  - (2) A summary of the facts;
  - (3) Arguments supporting its position;
  - (4) Name and title of the executive who will represent that Party; and
  - (5) Name and title of any other individual who will accompany the executive.

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- v) Within 30 Days following delivery of a Notice of Measurement Dispute, the executives of both Parties shall meet at a mutually acceptable time and place in Houston, TX and thereafter as often as they reasonably deem necessary, to attempt to resolve the Measurement Dispute.
- vi) All information disclosed and positions taken during the negotiations and any mediation will be treated as confidential, and as compromise and settlement information for the purposes of any applicable rules of evidence.

16) Miscellaneous

17) Conflicts

- a) To the extent there is any conflict or inconsistency between the Agreement and this Exhibit, the provisions of the Agreement will control.

18) Right to Change

- a) Enterprise reserves, in its sole discretion, the right from time to time, as it deems necessary, to make:
  - i) Non-substantive changes to this Exhibit; and
  - ii) Changes to this Exhibit driven by industry practice, governmental regulations, or the reasonable operational requirements of Enterprise.
- b) Where multiple analytical test methods are allowed, Enterprise reserves, in its sole discretion, the right from time to time, as it deems necessary, to change the approved analytical test method.
- c) Any change to this Exhibit or the approved analytical test method must be made on a non-discriminatory basis to similarly situated Customers.

19) Change in Regulations or Industry Standards

- a) If at any time the basis of measurement set out in this Exhibit should conflict with rules, regulations or orders of any local, state or federal regulatory body having jurisdiction, or with any referenced industry standard, then the basis of measurement provided for in such rules, regulations, orders or referenced industry standard shall govern measurements hereunder.

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Rev. #	Date	Explanation
Rev 0	October 2023	Development of CO <sub>2</sub> Measurement Procedures
Rev. 1	February 2024	Eliminated "A Customer's witness signature does not constitute the approval of the use of out-of-tolerance equipment, but does attest to the validity of the proving report."
Rev. 2	August 2024	Composite sampling is required.

