

October 3, 2023

VIA ELECTRONIC MAIL TO: cbaker@equitransmidstream.com

Cliff Baker
Senior Vice President
Commercial Development & Operations
Equitrans Midstream Corporation
2200 Energy Drive,
Canonsburg, Pennsylvania 15317

CPF No. 1-2023-053-NOPSO

Dear Mr. Baker:

Enclosed please find a Consent Order incorporating the terms of the Consent Agreement between the Pipeline and Hazardous Materials Safety Administration (PHMSA) and Equitrans Midstream Corporation, which was executed on October 3, 2023. Service of the Consent Order and Consent Agreement by electronic mail is effective upon the date of transmission and acknowledgement of receipt as provided under 49 C.F.R. § 190.5.

Thank you for your cooperation in this matter.

Sincerely,

Alan K. Mayberry
Associate Administrator
for Pipeline Safety

Enclosure: Order and Consent Agreement

cc: Ms. Linda Daugherty, Deputy Associate Administrator for Field Operations, Office of Pipeline Safety, PHMSA
Mr. Robert Burrough, Director, Eastern Region, Office of Pipeline Safety, PHMSA
Mr. Keith Coyle, Esq., Babst Calland, Outside Counsel for Equitrans Midstream Corporation, kcoyle@babstcalland.com

CONFIRMATION OF RECEIPT REQUESTED

**U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
OFFICE OF PIPELINE SAFETY
WASHINGTON, D.C. 20590**

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|-----------------------------------------|---|---------------------------------|
| |) | |
| In the Matter of |) | |
| |) | |
| Equitrans Midstream Corporation, |) | CPF No. 1-2023-053-NOPSO |
| |) | |
| Respondent. |) | |
| |) | |

CONSENT AGREEMENT

Pursuant to Chapter 601 of title 49, United States Code, the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), initiated on-site inspections and investigation of Equitrans Midstream Corporation’s (Respondent) Mountain Valley Pipeline (MVP) in West Virginia and Virginia.¹

The MVP encompasses the proposed and partially constructed 303-mile natural gas transmission pipeline system in its entirety (Affected Facility). The Affected Facility, an interstate natural gas pipeline (42-inch diameter, coated steel pipe) that has been under construction since 2018, is subject to Federal pipeline safety laws and regulations, including the natural gas pipeline design and construction safety regulations in 49 C.F.R. Part 192.

As a result of the investigation, the Director, Eastern Region, OPS (Director), issued to Respondent, by letter dated August 11, 2023, a Notice of Proposed Safety Order (Notice). The Notice alleged that conditions exist on Respondent’s Affected Facility that pose a pipeline integrity risk to public safety, property, or the environment. The Notice also proposed that Respondent take certain corrective measures to remedy the alleged conditions and ensure that the public, property, and the environment are protected from the alleged integrity risk.

On August 12, 2023, Respondent responded to the Notice by timely submitting a request for an informal consultation under 49 C.F.R. § 190.239(b)(2). PHMSA and Respondent (the Parties) held informal consultation meetings beginning on August 14, 2023.

As a result of the informal consultation, the Parties agree that settlement of this proceeding by entry into this Consent Agreement (Agreement) is the most appropriate means of resolving the issues raised in the Notice, will avoid further administrative proceedings or litigation, and is in the

¹ The MVP is owned by Mountain Valley Pipeline, LLC, Series A (Mountain Valley), a joint venture of several entities. An affiliate of Equitrans Midstream Corporation (OPID 31604) serves as the operator of MVP.

public interest. Therefore, pursuant to 49 C.F.R. § 190.239(b)(2), without adjudication of any issue of law or fact, and upon consent and agreement, the Parties agree to the following terms and conditions.

I. General Provisions

1. Respondent acknowledges that as the operator of the pipeline facilities subject to the Notice, Respondent and its referenced pipeline facilities are subject to the jurisdiction of the Federal pipeline safety laws, 49 U.S.C. § 60101, *et seq.*, and the regulations and administrative orders issued thereunder. For purposes of this Agreement, Respondent acknowledges that it received proper notice of PHMSA's action in this proceeding and that the Notice states claims upon which relief may be granted pursuant to 49 U.S.C. § 60101, *et seq.*, and the regulations and orders issued thereunder.

2. Respondent does not admit or deny any of the allegations in the Notice but agrees, for purposes of this Agreement, to complete the actions specified in Section II of this Agreement (Corrective Measures) and to abide by the terms of this Agreement.

3. After Respondent returns this signed Agreement to PHMSA, the Agency's representative will present it to the Associate Administrator for Pipeline Safety, recommending that the Associate Administrator adopt the terms of this Agreement by issuing an administrative order (Consent Order) incorporating the terms of this Agreement. The terms of this Agreement constitute an offer of settlement until accepted by the Associate Administrator. Once accepted, the Associate Administrator will issue a Consent Order incorporating the terms of this Agreement.

4. Respondent consents to the issuance of the Consent Order, and hereby waives any further procedural requirements with respect to its issuance. Respondent waives all rights to contest the adequacy of notice, or the validity of the Consent Order or this Agreement, including all rights to administrative or judicial hearings or appeals, except as set forth in the Dispute Resolution provisions set forth herein.

5. This Agreement shall apply to and be binding upon PHMSA and Respondent, its officers, directors, and employees, and its successors, assigns, or other entities or persons otherwise bound by law. Respondent agrees to provide a copy of this Agreement and any incorporated work plans and schedules to all of Respondent's officers, employees, and agents whose duties might reasonably include compliance with this Agreement.

6. For all transfers of ownership or operating responsibility of Respondent's pipeline system referenced herein, Respondent will provide a copy of this Agreement to the prospective transferee at least 30 days prior to such transfer. Respondent will provide written notice of the transfer to the Director no later than 60 days after the transfer occurs.

7. This Agreement constitutes the final, complete and exclusive agreement and understanding between the Parties with respect to the settlement embodied in this Agreement. The Parties acknowledge that there are no representations, agreements or understandings relating to settlement other than those expressly contained in this Agreement.

8. Nothing in this Agreement affects or relieves Respondent of its responsibility to comply with all applicable requirements of the Federal pipeline safety laws, 49 U.S.C. § 60101, *et seq.*, and the regulations and orders issued thereunder. Nothing in this Agreement alters PHMSA's right of access, entry, inspection, and information gathering or PHMSA's authority to bring enforcement actions against Respondent pursuant to the Federal pipeline safety laws, the regulations and orders issued thereunder, or any other provision of Federal or State law.

9. This Agreement does not waive or modify any Federal, State, or local laws or regulations that are applicable to Respondent's pipeline systems, including the provisions in the Fiscal Responsibility Act of 2023, Pub. L. No. 118-5, § 324. This Agreement is not a permit, or a modification of any permit, under any Federal, State, or local laws or regulations. Respondent remains responsible for achieving and maintaining compliance with all applicable Federal, State, and local laws, regulations and permits.

10. This Agreement does not create rights in, or grant any cause of action to, any third party not party to this Agreement. The U.S. Department of Transportation is not liable for any injuries or damages to persons or property arising from acts or omissions of Respondent or its officers, employees, or agents carrying out the work required by this Agreement. Respondent agrees to hold harmless the U.S. Department of Transportation, its officers, employees, agents, and representatives from any and all causes of action arising from any acts or omissions of Respondent or its contractors in carrying out any work required by this Agreement.

11. This Agreement does not constitute a finding of violation of any Federal law or regulation and may not be used in any civil or administrative proceeding of any kind as evidence or proof of any fact, fault, or liability, or as evidence of the violation of any law, rule, regulation, or requirement, except in a proceeding to enforce the provisions of this Agreement.

II. Corrective Measures:

12. Upon issuance of the Consent Order, Respondent agrees to perform the Corrective Measures set forth below.

13. **Definitions.**

(A) "Director" means the Director, Eastern Region, OPS;

(B) "Effective Date" means the date on which the Consent Order is issued by the Associate Administrator, PHMSA, incorporating the terms of this Agreement; and,

(C) "Affected Facility" means the approximately 303-mile MVP pipeline traversing the states of West Virginia and Virginia, commencing at mile post (MP) 0.0 in Wetzel County, West Virginia, and ending at MP 303.0 in Pittsylvania County, Virginia, and includes all associated compressor stations and facilities.

(D) "Uninstalled Pipe" means pipe that:

(i) is stored on the pipeline right-of-way on or after the Effective Date (including in the Bradley, West Virginia Yard, or at any other location outdoors) and which must be installed to complete the construction of the Affected Facility; and

(ii) may have been installed on or after July 1, 2023, for which a deficiency must be corrected under Corrective Measure 17(B)(ii).

(E) “KTA” means KTA-Tator, Inc., an independent third-party with expertise and experience in assessing the coating type being utilized on the Affected Facility.

14. **Reports/Results.** Within 15 days of completing the actions specifically referenced in Corrective Measures 16(A), 17(A), 18(A), 19(A), and by the alternate reporting deadlines specified for Corrective Measure 19(B)-(C), Respondent must provide the written report describing the results of that action to the Director.

15. **Remedial Work Plan.** Within 30 days of completing the actions specifically referenced in Corrective Measures 16(B)(i), 17(A)-(C), and 18(B)(i), and 19(A)-(D), Respondent must develop and submit a written remedial work plan (Work Plan or RWP) to the Director that includes any necessary corrective measures. The Plan must include provisions to:

(A) Remediate any identified safety conditions, including the specific remedial actions described in Corrective Measures 16(B)(ii), 17(A)-(C), 18(B)(ii), and 19 below, and identify the location and type of any necessary remediation activities;

(B) Include a proposed timeline for completion of the corrective measures;

(C) Revise the Plan as necessary to incorporate new information obtained during the evaluations and associated remedial activities. Respondent must submit any such revisions to the Director for prior approval;

(D) Allow the Director to approve Plan elements incrementally. Once approved, the Plan shall become incorporated into the Consent Order; and

(E) Implement the Plan as it is approved by the Director, including any revisions to the Plan. Results of actions taken in accordance with the approved Plan must be available for review by PHMSA or its representative.

16. **ACVG/DCVG Surveys.**

(A) Prior to commissioning the Affected Facility, Respondent must:

(i) Conduct alternating current voltage gradient (ACVG), direct current voltage gradient (DCVG), or other comparable inspection, testing, or surveys capable of locating and assessing pipeline coating conditions indicative of potential corrosion

threats or anomalies, on all installed pipe segments, except for those installed and tested after January 1, 2023;

(ii) A minimum of two (2) coating survey assessment classifications for survey calibration must be excavated, classified, and/or remediated per each survey crew per each time a survey is performed for each External Corrosion Direct assessment (ECDA) region. ECDA regions are to be identified in accordance with NACE International Standard Practice 0502-2010, "Pipeline External Corrosion Direct Assessment Methodology," (NACE SP 0502-2010) Section 3.5 Identification of ECDA Regions. and,

(iii) Conduct excavations for each survey as provided in NACE SP 0502-2010, Section 5.3 Guidelines for Determining the Required Number of Direct Examinations.

(iv) A variance from the requirements of NACE SP 0502-2010 Sections 3.5 and 5.3, as applicable under 16(A)(ii)-(iii), may be obtained if Respondent submits a request with an adequate explanation and supporting plan in advance to the Director for approval.

(B) After completing the ACVG, DCVG, or other comparable inspection, testing, or surveys required under Corrective Measure 16(A), Respondent must:

(i) Provide a written report to the Director pursuant to Corrective Measure 14; and

(ii) Submit an RWP to the Director pursuant to Corrective Measure 15 for remediating any damaged coating indications found during the assessments that are classified as severe indications with voltage (IR) drop greater than 60 percent for DCVG or 70 dB μ V for ACVG, as provided in 49 C.F.R. § 192.461(h), or severe based on NACE SP 0502-2010.

(C) Respondent's plan for conducting the DCVG surveys required under this Corrective Measure is described in Appendix I to this agreement.

17. Coating.

(A) Respondent shall:

(i) Provide to the Director KTA's evaluation of the procedures that Respondent is using to assess and remediate any potential damage to the coating for the Uninstalled Pipe, including by performing adhesion tests to evaluate coating performance;

(ii) Adopt any changes to the procedures that KTA determines are necessary to ensure the safe installation of Uninstalled Pipe; and

(iii) Provide a written report to the Director pursuant to Corrective Measure 14 describing the results of KTA's evaluation and any changes adopted to the procedures under Corrective Measure 15.

(iv) The Director has received the evaluation, written report, and procedures required under Corrective Measure 17(A)(i)-(iii) and approved the procedures that Respondent is using to assess and remediate any potential damage to the coating for the Uninstalled Pipe.

(B) After submitting the written report to the Director required under Corrective Measure 17(A), Respondent shall:

(i) Require KTA to audit the implementation of the procedures for assessing and remediating any potential damage to the coating for the Uninstalled Pipe at all MVP spreads;

(ii) Take any actions that KTA, or the Director after consulting with KTA as the independent third-party, determines are necessary to correct any deficiency in implementing those procedures for any Uninstalled Pipe under the RWP; and

(iii) Notify the Director of any such deficiency and corrective actions within 24 hours.

(iv) The Director has received and approved Respondent's plan for auditing the implementation of the procedures for assessing and remediating any potential damage to the coating for the Uninstalled Pipe at all MVP spreads.

(C) If KTA determines in conducting the audit that a change to the coating assessment and remediation procedures is necessary to ensure the safe installation of Uninstalled Pipe, Respondent shall immediately adopt the change and include it in the RWP and notify the Director.

(D) If KTA is unable for any reason to perform the requirements in Corrective Measures 17(A)-(C), Respondent shall:

(i) Immediately notify the Director; and

(ii) Within 15 days of notification of the Director, submit an RWP pursuant to Corrective Measure 15 for approval of another independent third-party with expertise and experience in assessing the coating type being utilized on the Affected Facility. Coating assessment and remediation activities must cease upon KTA's end of performance and until another third party approved by the Director begins coating audit activities.

(E) Respondent is authorized to continue assessing and remediating any potential damage to the coating for the Uninstalled Pipe while completing the construction of the Affected Facility, subject to applicable provisions in this Agreement.

18. Cathodic Protection CIS Surveys.

(A) Within six months after commissioning, Respondent must assess the effectiveness of the Affected Facility's permanent CP system via a close interval survey (CIS) to ensure MVP's CP systems, including AC mitigation or interferences measures, are operating as designed per National Association of Corrosion Engineers (NACE) specified standards. The CIS must be conducted at a maximum 5-foot spacing and with interrupted on/off current to meet the requirements in §§ 192.463 and 192.465.

(B) After conducting the CIS, Respondent must:

(i) Provide a written report to the Director pursuant to Corrective Measure 14; and

(ii) Submit an RWP to the Director pursuant to Corrective Measure 15 for remediating any identified locations as necessary in accordance with 49 C.F.R. Part 192, Subpart I.

19. ILI/Tool Runs.

(A) Prior to commissioning of the Affected Facility, Respondent must run a low-resolution caliper tool capable of detecting dents and ovalities and remediate any identified imperfection or damage in accordance with the requirements of 49 C.F.R. § 192.309. Respondent must provide a report to the Director pursuant to Corrective Measure 14 within 15 days of completing the low-resolution caliper tool run. If any segments of pipe are determined to have imperfection or damage that requires remediation, Respondent must submit an RWP to the Director pursuant to Corrective Measure 15 for remediating those segments.

(B) Within 90 days of commencing commercial natural gas transportation service on the Affected Facility, Respondent must run a high-resolution inline inspection (ILI) tool consisting of a magnetic flux leakage (MFL) tool with incorporated inertial measurement unit (IMU) and high-resolution caliper/deformation capabilities. After completing the tool run, Respondent must analyze all areas on the Affected Facility to identify locations susceptible to excessive external stresses, including, but not limited, to all sag locations and tie-in welds, and for any corrosion-related or other integrity-related conditions that require remediation under the applicable provisions in Subpart M or Subpart O of

Part 192.² The tools required under this Corrective Measure 19(B) must have the required sensitivity of measurements, and the highest resolution presently available for sensor spacing and sampling rate, and capability of multiple readings per sensor on the mechanical arm/sensor carrier (e.g., capable of additional readings such as “stand-off” at the sensor carrier), with a required sensitivity of measurements that enables repeatability in characterization and prioritization based upon anomaly size. Respondent must provide preliminary and final analysis reports to the Director pursuant to Corrective Measure 14 within 90 and 180 days of completing the tool run. An analysis of areas potentially susceptible to excessive external stresses on the Affected Facility must commence immediately following the Effective Date.

(C) Within one year of completing the tool run required under Corrective Measure 19(B), Respondent must run another tool with IMU capabilities. After completing the tool run, Respondent must analyze areas on the Affected Facility susceptible to excessive external stresses, including, but not limited, to all sag locations and tie-in welds. Respondent must provide preliminary and final analysis reports to the Director pursuant to Corrective Measure 14 within 90 and 180 days of completing the tool run.

(D) Respondent must perform a comparative strain analysis utilizing the tool run data attained in Corrective Measures 19(B)-(C) to more accurately identify potential areas of strain that may warrant further investigation. If any segments of pipe are determined to be subject to excessive external stress, Respondent must submit an RWP to the Director pursuant to Corrective Measure 15 for remediating those segments. Respondent must consult with appropriate subject matter experts and determine appropriate acceptable action levels for geohazards and other conditions. In the absence of an acceptable action level determination as agreed upon with the Director, the default values of two (2) percent strain for pipe and 0.5 percent strain for girth welds will be utilized. After appropriate determination of the action levels, Respondent shall remediate any identified locations above the specified thresholds as required by the applicable provisions in Subpart M or Subpart O of Part 192. Any other conditions discovered during the tool runs performed under Corrective Measures 19(A)-(C) that are actionable under Part 192 must be remediated as contemplated by the applicable code sections and included in the RWP submitted to the Director pursuant to Corrective Measure 15.

² The requirements specified in the text of Subpart M or Subpart O of Part 192 on the Effective Date apply under the terms of this paragraph 19, regardless of whether their general applicability to the pipeline industry is presently effective (e.g., PHMSA’s enforcement discretion until February 2024 as to certain Part 192 requirements does not apply under this paragraph 19 requirement to the MVP. See, e.g., *LIMITED ENFORCEMENT DISCRETION FOR EXISTING ONSHORE GAS TRANSMISSION PIPELINES REGARDING COMPLIANCE WITH THE RECENTLY ISSUED GAS TRANSMISSION FINAL RULE (87 FR 52224 (AUG. 24, 2022))*; available online at: <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2022-12/PHMSA%20Onshore%20Gas%20Transmission%20Notice%20of%20Limited%20Enforcement%20Discretion.pdf>.

(E) Respondent may submit a request pursuant to Corrective Measure 23 to extend the deadlines for completing the tool runs required under Corrective Measures 19(A)-(C) for good cause, including tool availability concerns.

20. **Additional Measures.** After receiving and analyzing additional data during this proceeding and implementation of the Corrective Measures described above, the Director may identify other safety measures that need to be taken on the Affected Facility. In that event, the Director will notify the Respondent of any proposed additional measures and, if necessary, may seek to modify this Agreement pursuant to Paragraph 29.

21. **Quarterly Reports.** Respondent must submit quarterly reports to the Director that: (1) include available data and results of the testing and evaluations required by the Agreement; and (2) describe the progress of the repairs and other remedial actions being undertaken. The first quarterly report shall be due 90 days from the Effective Date.

22. **Final Summary Report.** A final summary report of work performed on the above items must be submitted to the Director within 30 days of the completion of the last action performed by Respondent that is set forth in this Agreement.

23. **Extensions of Time.** The Director may grant an extension of time for compliance with any of the terms of the Agreement upon a written request, timely submitted, demonstrating good cause for an extension. The Director shall respond in writing to any such request.

24. **Documentation of Costs.** It is requested that Respondent maintain documentation of the safety improvement costs associated with fulfilling this Agreement and submit the total to the Director. It is requested that these costs be reported in two categories: 1) total cost associated with preparation/revision of plans, procedures, studies, and analyses; and 2) total cost associated with replacements, additions, and other changes to pipeline infrastructure.

III. Review and Approval Process:

25. With respect to any submission under Section II (Corrective Measures) of this Agreement that requires the approval of the Director, the Director may: (a) approve, in whole or in part, the submission; (b) approve the submission on specified, reasonable conditions; (c) disapprove, in whole or in part, the submission; or (d) any combination of the foregoing. If the Director approves, approves in part, or approves with conditions, Respondent will take all actions as approved by the Director, subject to Respondent's right to invoke the dispute resolution procedures with respect to any conditions the Director identifies. If the Director disapproves all or any portion of the submission, the Director will provide Respondent a written notice of the deficiencies, subject to Respondent's right to invoke the dispute resolution procedures. Respondent will correct all deficiencies within the time specified by the Director and resubmit it for approval.

IV. Dispute Resolution:

26. The Director and Respondent will informally attempt to resolve any disputes arising under this Agreement, including any decision of the Director under the terms of Section II (Corrective Measures). If Respondent and the Director are unable to informally resolve the dispute within 15 calendar days after the dispute is first raised, in writing, to the Director, Respondent may submit a written request for a determination resolving the dispute from the Associate Administrator for Pipeline Safety, PHMSA. Such request must be made in writing and provided to the Director, counsel for Eastern Region, and to the Associate Administrator for Pipeline Safety, no later than 10 calendar days from the 15-day deadline for informal resolution referenced in this paragraph. Along with its request, Respondent must provide the Associate Administrator with all information Respondent believes is relevant to the dispute. Decisions of the Associate Administrator under this paragraph will constitute final agency action subject to judicial review pursuant to 49 U.S.C. § 60119. The existence of a dispute and PHMSA's consideration of matters placed in dispute will not excuse, toll, or suspend any term or timeframe for completion of any work to be performed under this Agreement during the pendency of the dispute resolution process.

V. Enforcement:

27. This Agreement is subject to all enforcement authorities available to PHMSA under 49 U.S.C. § 60101, *et seq.*, and 49 C.F.R. Part 190, including administrative civil penalties under 49 U.S.C. § 60122, of up to \$257,664 per violation for each day the violation continues and referral of the case to the Attorney General for judicial enforcement, if PHMSA determines that Respondent is not complying with the terms of this Agreement in accordance with the determinations made by the Director, or in accordance with decisions of the Associate Administrator if resolved pursuant to the Dispute Resolution process herein. The maximum civil penalty amounts are adjusted annually for inflation. *See* 49 C.F.R. § 190.223. All work plans and associated schedules set forth or referenced in Section II are automatically incorporated into this Agreement and are enforceable in the same manner.

VI. Recordkeeping and Information Disclosure:

28. Unless otherwise required in this Agreement, Respondent agrees to maintain records demonstrating compliance with all requirements of this Agreement for a period of at least five (5) years following completion of all work to be performed. For any reports, plans, or other deliverables required to be submitted to PHMSA pursuant to this Agreement, Respondent may assert a claim of business confidentiality or other protections applicable to the release of information by PHMSA, covering part or all of the information required to be submitted to PHMSA pursuant to this Agreement in accordance with 49 C.F.R. Part 7. Respondent must mark the claim of confidentiality in writing on each page and include a statement specifying the grounds for each claim of confidentiality. PHMSA determines release of any information submitted pursuant to this Agreement in accordance with 49 C.F.R. Part 7, the Freedom of Information Act, 5 U.S.C. § 552, DOT and PHMSA policies, and other applicable regulations and Executive Orders.

VII. Modification:

29. The terms of this Agreement may be modified by mutual agreement of the Parties. Such modifications must be in writing and signed by both parties.

VIII. Termination:

30. This Agreement will remain in effect until the Corrective Measures in Section II are satisfied, as determined by the Director. The Agreement shall not terminate until the Director confirms, in writing, that the Agreement is terminated in accordance with this paragraph. Nothing in this Agreement prevents Respondent from completing any of the obligations earlier than the deadlines provided for in this Agreement.

IX. Ratification:

31. The Parties' undersigned representatives certify that they are fully authorized to enter into the terms and conditions of this Agreement and to execute and legally bind such party to this document.

32. The Parties hereby agree to all findings, conditions, and terms of this Agreement.

[Signature Lines on Following Page]

For Equitrans Midstream Corporation:

Date

For PHMSA:

Director, Eastern Region, Office of Pipeline Safety

Date

**APPENDIX I:
DCVG PLAN**

Condition 16 of the Agreement requires Respondent to conduct alternating current voltage gradient (ACVG), direct current voltage gradient (DCVG), or other comparable inspection, testing, or surveys capable of locating and assessing pipeline coating conditions indicative of potential corrosion threats or anomalies, on certain pipeline segments prior to commissioning. Respondent has developed a plan for conducting the surveys required by Condition 16, and that plan will require Respondent to conduct a minimum of 14 DCVG surveys of varying lengths. Respondent considered the following technical, logistical, and personnel safety considerations in selecting the DCVG survey segments:

- Survey segments of adequate length to provide meaningful data that can be analyzed quickly to determine where excavations for further investigations are required.
- Survey segments that predominantly coincide with the existing construction Spread breaks. These Spread breaks also coincide with changes in the topography and similar geologic conditions.
- Survey segment breaks where large installation gaps existed prior to 2023 construction activities or at test segment break points. These break points ensure that additional welding will not interfere with the testing or results conducted in those segments.
- Survey segments based on the availability of permanent cathodic protection groundbeds to use as the anode source during testing.
- Survey sections based on the schedule for completing continuous pipe sections to minimize the number of excavations that need to occur during winter months.

Respondent may divide the 14 survey segments described in Table 1 below into smaller sections to facilitate coordination with other ongoing construction activities. If that occurs, Respondent will still conduct the minimum number of excavations required under Condition 16 of the Consent Agreement.

Table 1: Description of DCVG Survey Segments

| Survey Segment # | Start (MP) | End (MP) | Segment Length (miles) | Pre-2023 Pipe (miles) | Start of Survey | End of Survey |
|------------------|------------|----------|------------------------|-----------------------|--------------------------------|----------------------------|
| 1 | 0 | 33.02 | 33.02 | 32.38 | Start of Line | End of Test Section A4 |
| 2 | 33.02 | 76.19 | 43.17 | 41.79 | Start of Test Section B1 | End of Test Section B3 |
| 3 | 76.19 | 98.55 | 22.58 | 20.26 | Start of Test Section C1 | End of Test Section C6 |
| 4 | 98.62 | 118.28 | 19.66 | 17.65 | Start of Test Section D1 | Gauley River Crossing Area |
| 5 | 119.01 | 154.43 | 35.42 | 32.71 | GAS Gauley River Crossing Area | Stallworth CS |
| 6 | 154.45 | 167.33 | 12.88 | 12.56 | Stallworth CS | End of Test Section F1 |

| | | | | | | |
|----|--------|--------|-------|-------|--------------------------|------------------------|
| 7 | 167.33 | 195.09 | 27.76 | 24.6 | Start of Test Section F2 | End of Test Section F7 |
| 8 | 201.65 | 219.55 | 17.9 | 14.5 | Main Line Valve 24 | End of Test Section G1 |
| 9 | 221.5 | 234.02 | 12.52 | 10.01 | Start of Test Section G2 | CIS I-81 Crossing |
| 10 | 234.38 | 241.41 | 7.03 | 2.18 | GAS I-81 Crossing | CIS Bent Mtn Area |
| 11 | 245.9 | 253.95 | 8.05 | 6.67 | GAS Bent Mtn Area | End of Test Section H6 |
| 12 | 253.95 | 270.9 | 16.95 | 13.62 | Start of Test Section I1 | End of Test Section I3 |
| 13 | 270.9 | 289.59 | 18.69 | 15.6 | Start of Test Section I4 | End of Test Section I4 |
| 14 | 289.59 | 303.36 | 14.61 | 11.25 | Start of Test Section I5 | End of Line |