COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

IN THE MATTER OF:

ETC Northeast Pipeline, LLC
6051 Wallace Run Extension
Wexford, PA 15090

ORDER

NOW, this 11th day of November, 2020, the Commonwealth of Pennsylvania, Department of Environmental Protection (“Department”), has made and determined the following FINDINGS and enters the following ORDER:


B. ETC Northeast Pipeline, LLC (“ETC”) is a foreign limited liability company doing business in Pennsylvania and maintains a local mailing address of 6051 Wallace Road Extension, 3rd Floor, Wexford, PA 15090.

C. At all times relevant to the matters set forth in this Order, ETC is the “owner” of, the “operator” of, and the “person” that is constructing and attempting to complete the
construction of the “Revolution Pipeline” and the “Revolution Pipeline Project,” as those terms are defined herein or in Section 1 of The Clean Streams Law, 35 P.S. § 691.1 (defines “person”); Section 3 of the Dam Safety Act, 32 P.S. §693.3 (defines “operator”); Section 3202 of the 2012 Oil and Gas Act, 58 Pa. C.S. § 3202 (defines “person”); and Sections 102.1 and 105.1 of the Regulations, 25 Pa. Code § 102.1 (defines “person” and “operator”) and 25 Pa. Code § 105.1 (defines “owner” and “person”).

**Summary of Order**

D. In this Order, the Department directs ETC to take measures to ensure that another catastrophic breach of the Revolution Pipeline does not occur, as happened on September 10, 2018, when the steep slope that the pipeline rested upon became unstable. Before filling the pipeline with natural gas, including flammable natural gas liquids, in locations of very steep slopes or areas of known instability and landslides, ETC must comply with the obligations it agreed to in a January 2020 Consent Order and Agreement: submit and, when approved, fully implement engineered designs demonstrating an acceptable factor of safety, and submit a Pollution Prevention and Control Plan which adequately addresses the substantial dangers of releases of gases and fluids to streams, aquatic life, and the environment.

**Factual Background**

E. The Revolution Pipeline is a gathering pipeline that is primarily intended to carry natural gas and/or liquids-rich natural gas from locations in Butler, Allegheny, and Washington Counties to the Revolution Cryogenic processing facility in Smith Township, Washington County, where the natural gas liquids are separated from the methane (“Revolution Pipeline”). The project of constructing, stabilizing, and placing the Revolution Pipeline into operation is named the Revolution Pipeline Project (“Revolution Pipeline Project”). The entirety of the
Revolution Pipeline Project is located in Jackson Township, Butler County; New Sewickley, Conway, Center, Raccoon, and Independence Townships, Beaver County; Findlay Township, Allegheny County; and Robinson and Smith Townships, Washington County. The Revolution Pipeline Project is approximately 40.5 miles in length and covers 690 acres. The natural gas that will flow through the Revolution Pipeline may include methane, natural gas liquids (natural liquids may include propane, butane, and pentane, “NGLs”; methane and NGLs are referred to as “Natural Gas”), and other fluid from geological formations that produce natural gas in Pennsylvania, commonly known as brine (“Brine”).

F. Earth disturbances necessary for the construction of the Revolution Pipeline Project are subject to Erosion and Sedimentation Control General Permit authorizations and associated modifications, numbers ESG 00007160001, ESG 000716001, and ESG 00 007 17 0002 (collectively, “Department Permits”). The Department Permits require ETC to assure that all earth disturbance activity is done in accordance with the drawings contained in the permit applications and terms and conditions as set forth in the Department Permits.

G. On January 3, 2020, pursuant to Section 20 of the Dam Safety and Encroachments Act, 32 P.S. § 693.20; Sections 5, 402, and 610 of The Clean Streams Law, 35 P.S. §§ 691.5, 691.402, and 691.610; Section 3253 of the 2012 Oil and Gas Act, 58 Pa. C.S. § 3253; and Section 1917-A of the Administrative Code, 71 P.S. § 510-17, the Department and ETC entered into a Consent Order and Agreement (“Consent Order”) regarding the Revolution Pipeline Project. The Consent Order (and its Exhibit E) is attached hereto as Exhibit A (the Consent Order’s other exhibits, A-D and F-H, are available upon request).

H. The Department found the following in the Consent Order, which references a December 13, 2019 letter from the Department (“Letter”):
Consent Order Paragraph H: “The earth disturbance associated with the construction of the Revolution Pipeline, including the placement of the pipe below the surface of the ground, the welding of the pipe, and the covering of the pipe, commenced on or about March 14, 2017. ETC reported that the Revolution Pipeline was mechanically complete and ready to be placed into commercial service on or about June 1, 2018. ETC had attempted to stabilize some areas of the LOD [limit of disturbance]; however, neither temporary nor permanent stabilization, as required pursuant to 25 Pa. Code Chapter 102, had been achieved within all areas of the LOD, as of September 10, 2018.” (Consent Order, p. 3, ¶ H.)

Consent Order Paragraph I: “On September 10, 2018, a landslide occurred at approximate pipeline station 1116+09, about 0.4 miles southwest of the intersection of Ivy Lane and Brodhead Road in Center Township, Beaver County, Pennsylvania ("Incident Site"). The landslide originated from unstabilized areas within the Revolution Pipeline LOD at that location. The landslide overtopped BMPs [Best Management Practices] beyond the LOD, and caused a sediment discharge into Raccoon Creek, a water of the Commonwealth. When the landslide occurred, a section of the Revolution Pipeline separated. Gas escaped from the Revolution Pipeline and ignited, causing a conflagration that: burned 2 to 4 acres of trees; destroyed a single-family home, a barn, and numerous vehicles; resulted in the evacuation of the residents living nearby; and caused six high voltage electric transmission towers to collapse.” (Consent Order, p. 3, ¶ I.)

Consent Order Paragraph K: “On October 29, 2018, the Department issued a Compliance Order ("2018 Order") to ETC addressing erosion and sedimentation and stability issues with the Revolution Pipeline LOD. The 2018 Order required ETC to, inter alia, cease all earth disturbance activities other than those necessary to repair and maintain existing BMPs, immediately cease all sediment laden discharges to waters of the Commonwealth, and prepare submittals for Department review. The 2018 Order is attached hereto as Exhibit A.” (Consent Order, p. 4, ¶ K.)

Consent Order Paragraph Q: “On December 13, 2019, the Department issued a letter, attached hereto as Exhibit E (the "Letter"), conditionally approving ETC's Stabilization Plan, Landslide Plan, and ESC Plan ("Plans").” (Consent Order, p.6, ¶ Q.)

Consent Order Paragraph X: “In January 2016, ETC analyzed the geology of the Revolution Pipeline and concluded that the area of the Incident Site had a high susceptibility to slope failure ("Geohazard Report").” (Consent Order, p. 9, ¶ X.)

(Consent Order, pp. 3, 4, 6, 9, emphasis added.)

I. In the Consent Order, ETC agreed to the following, inter alia, regarding the Letter:


b. “ETC shall fully comply with the terms and conditions of the Letter in accordance with the schedule set forth therein.” (Consent Order, p. 13, ¶ 3.a.iii.)

Requirements of the Letter Regarding Steep Slopes

J. The Letter\(^1\) addresses slopes and hillsides where there is a higher risk of instability including slope failures ("Steep Slopes") within the Revolution Project:

… are gradients of 40 percent or steeper where the pipeline is oriented parallel to contour (side slope) or oblique to contour as identified in Section 7 of the Landslide Plan.\(^2\)

(Consent Order, Ex. E, p. 4, ¶ 6.)

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\(^1\) As set forth above, the Letter is “Exhibit E” to the Consent Order, which is attached as Exhibit A to this Order.

\(^2\) In this context, “parallel to contour” means that the pipeline is running along the side of the hill and not along the vertical ascent or descent of the hill, i.e., not running up or down, but alongside the hill. “Oblique to contour” means that the pipeline is neither perpendicular nor parallel, meaning that it runs along a hillside at a slant or angle but not at a right angle to the contour of the hill, i.e., not exactly running up or down the hill.
K. For reference, the Incident Site had a slope of greater than 40 percent, and the Revolution Pipeline was parallel to the slope and therefore would have met the Letter’s description of Steep Slopes.

L. The Letter requires that ETC submit designs demonstrating a specific factor of safety will be achieved on the Steep Slopes as follows:

6. Steep Side Slope Fill Segments ("Steep Side Slope Fill Segments" [defined in this Order for brevity as “Steep Slopes’]) are gradients of 40 percent or steeper where the pipeline is oriented parallel to contour (side slope) or oblique to contour as identified in Section 7 of the Landslide Plan.

   a. In the design of the permanent stabilization ("Permanent Stabilization") of Steep Side Slope Fill Segments, ETC shall:

      i. Demonstrate that the pipeline is benched into bedrock or dense, weathered rock or dense residual soil and that the pipeline is not supported on fill or colluvium. In order to fulfill this demonstration ETC shall review all past construction records and perform drive probes, hand augers and/or soft digging methods or other methods approved in writing by the Department at adequate and sufficient locations to verify competent bearing soils. By no later than April 1, 2020 ETC shall submit the results of this investigation to the Department.

      ii. Propose a design that achieves a factor of safety of 1.5 unless ETC can demonstrate to the satisfaction of the Department that it cannot meet a factor of safety of 1.5 using generally accepted geotechnical engineering practices.

(Consent Order, Ex. E, the Letter, p. 4, ¶ 6.)

M. In the April 1, 2020 submission required by the Letter ("April 2020 Submission", the first 9 pages of which are attached hereto as Exhibit B), ETC described the stability of the Steep Slopes as follows:

   During our review of the construction photographic record, survey data, and drive probe and hand auger exploration results, we did not observe evidence of pipe embedment in loose, soft, or otherwise unsuitable bearing materials from a slope stability perspective in the referenced steep side
slope areas. As such, it is our opinion that there is low risk of slope movement that would affect the pipeline integrity.

It is GeoEngineers’ [i.e., ETC’s consultant] opinion that drive probe and other hand exploration methods provide useful indications of soil consistency and stratigraphy, but do not provide reliable strength data for numerical modeling purposes.

In addition, mechanical explorations would require construction of access roads and water crossings, which would disturb otherwise stable slopes and increase the risk of slope instability and delivery of sediment to the waters of the Commonwealth. Provided the steep side slopes continue to remain stable, it is our opinion that the risk of slope destabilization and potential delivery of sediment to the waters of the Commonwealth is not warranted.

(Exhibit B, April 2020, Submission, Memorandum to ETC Northeast Pipeline, LLC, p. 4.)

N. Neither the statements in the April 1, 2020 Submission, quoted in Paragraph M, above, nor any other statement therein include a proposal for “a design that achieves a factor of safety of 1.5” or a demonstration of stability “to the satisfaction of the Department that [ETC] cannot meet a factor of safety of 1.5 using generally accepted geotechnical engineering practices.” These requirements in Paragraph 6.a.ii of the Letter are referred to herein as the “Stability Analyses.”

O. ETC has not submitted the Stability Analyses for the Steep Slopes as required by Paragraph 6.a.ii of the Letter.

P. ETC is currently in violation of Paragraph 3.a.iii of the Consent Order and Paragraph 6.a.ii of the Letter by having failed to submit the Stability Analyses for the Steep Slopes.

Q. ETC’s failure to comply with the requirements of the Consent Order and the Letter that require it to meet the Stability Analyses requirements is a violation of an order of the Department and therefore constitutes unlawful conduct pursuant to Section 3259 of the 2012 Oil
and Gas Act, 58 P.S. § 3259, and Section 691.611 of The Clean Streams Law, 35 P.S. § 691.611; and a nuisance pursuant to Sections 402 and 610 of The Clean Streams Law, 35 P.S. §§ 691.402 and 691.610.

Unstable Slopes Risk Pollution and Nuisances

R. In addition to the requirement to analyze and design stabilization plans for all Steep Slopes described above, ETC has already studied certain other slopes along the Revolution Pipeline Project that lack stability. ETC has proposed designs with a factor of safety of 1.5 for these other slopes, some of which have been approved by the Department. Until such time as ETC implements approved designs, these other slopes remain unstable. These slopes that ETC has already identified as requiring additional construction and stabilization to achieve a factor of safety of 1.5, along with the Steep Slopes defined in Paragraph J, above, are collectively referred to herein as the “Unstable Slopes.”

S. The Unstable Slopes, along with the rest of the Revolution Pipeline Project, are part of ETC’s project-wide Permanent Stabilization Plan (“Permanent Stabilization Plan”) dated March 1, 2020. ETC submitted a revised Permanent Stabilization Plan on May 4, 2020. To allow ETC to stabilize certain areas of the project before the entirety of the Permanent Stabilization Plan is approved, the Department approved site-specific portions of the Permanent Stabilization Plan. ETC has not yet implemented the Permanent Stabilization Plan for the Unstable Slopes because, for each such slope, the work is in progress but not yet complete, the proposal is under review and not yet approved, or the slope is a Steep Slope, meaning the stability of the area has not been adequately studied yet. The Permanent Stabilization Plan (as approved), as well as the approved site-specific portions thereof, are collectively referred to herein as the “Permanent Stabilization Plan.”
T. The Department has prepared a table attached hereto as Exhibit C that describes the Unstable Slopes and contains information regarding their stability, proximity to buildings, proximity to waters of the Commonwealth, and other relevant information. The locations may be compared to a map prepared by ETC that is attached hereto as the last page of Exhibit B.

U. On October 20, 2020, and again on November 3, 2020, ETC stated that it intends to put the Revolution Pipeline into service (i.e., flowing Natural Gas through the pipeline) in the near future. ETC has not identified to the Department its intended date or time frame to put the Revolution Pipeline into service.

V. Should any landslides occur, there is a danger that soils and rocks would enter the waters of the Commonwealth near the Unstable Slopes. In addition, any landslide could displace and separate the Revolution Pipeline, resulting in damage similar to the damage that occurred at the Incident Site in 2018, as well as pollution to waters of the Commonwealth.

W. The impacts of a future landslide and pipeline separation could be more dangerous and pollutional than the explosion that occurred in 2018 at the Incident Site if NGLs and Brine are among the Revolution Pipeline’s contents. NGLs, if not volatilized, could flow into those waters of the Commonwealth along with any Brine. NGLs that do volatilize could create a low-lying flammable fog. If there is an ignition source, as in 2018, an explosion and fire could denude the land, as occurred at the Incident Site. Without vegetation, accelerated erosion and sedimentation follows. Landslides and explosions endanger structures or human activity nearby.

X. Because of ETC’s unlawful conduct of failing to submit the Stability Analyses required by the Consent Order and the Letter, and the landslide risks associated with the Unstable Slopes, placing Natural Gas and Brine in the Pipeline would constitute potential
pollution to the waters of the Commonwealth and a nuisance. These conditions create a risk of catastrophic landslides that threaten the waters of the Commonwealth and human health and safety, and cause adverse impacts that could exceed the impacts of the September 10, 2018 landslide and pipeline rupture at the Incident Site. (See Paragraph F, above).

Y. This Order requiring ETC to not put Natural Gas (or other flammable gases) and Brine in the Revolution Pipeline where it crosses the Unstable Slopes, is necessary because neither civil penalties nor other enforcement procedures would ensure that ETC effectively addresses the risks described above. See 35 P.S. § 691.610.

**ETC’s PPC Plan**

Z. Pursuant to 25 Pa. Code §§ 78a.55(a), 78a.68, 102.1, and 102.5(l), ETC is required to prepare, implement, and have available upon request by the Department, a Preparedness, Prevention and Contingency Plan for the Revolution Pipeline Project (“PPC Plan”) that describes, *inter alia*, how ETC will safely transport and remove fuels, chemicals, petrochemicals, and/or hazardous materials onto, on, or from the Revolution Pipeline Project. On May 1, 2019, ETC provided its PPC plan to the Department (“PPC Plan”).

AA. Section 5.2.2 of ETC’s PPC Plan states that if ETC believes the integrity of the Revolution Pipeline could be at risk from an existing slip or slide location, or a new slide is observed, the ETC Emergency Manager will consult with “Gas Control” to, *inter alia*, determine if the pipeline should be shut down, and the contents purged. The PPC Plan only states the following regarding purging: “The determination regarding shutdown and purging of the pipeline will be made in accordance with, and pursuant to, state and federal pipeline safety regulations.” (PPC Plan, p. 14.)
BB. ETC’s PPC Plan, described above, lacks any meaningful protections for the environment. Among other things, the PPC Plan does not include safeguards against creating a combustible atmosphere during purging, for containing a release of Brine or NGLs to the soil or ground or surface waters of the Commonwealth during purging, or that account for weather and/or atmospheric conditions when selecting the manner of purging. The PPC Plan also does not provide for abiding by Pennsylvania environmental laws or regulations.

CC. Despite the continued existence of land movement and numerous unstable areas upslope from or overtop of the Revolution Pipeline, ETC’s proposed PPC Plan fails to explain how natural gas or NGLs or any other Pipeline Liquid, such as Brine, will be removed from the Revolution Pipeline in a safe and environmentally protective manner in the event of a landslide or other earth movement that could separate, rupture, or otherwise compromise the integrity of the Revolution Pipeline.

DD. On June 3, 2019, the Department notified ETC that the PPC Plan was deficient and did not comply with the requirements of the Regulations, stating that “ETC’s failure to prepare and implement a PPC Plan that safely removes petrochemicals it is storing, using, or transporting within the charged Line is a violation of 25 Pa. Code §§ 78a.55(a) and 102.5(1).” (Exhibit D, hereinafter “PPC NOV”, p. 1.)

EE. As of the date of this Order, ETC has not submitted a revised PPC Plan to the Department that satisfies regulatory requirements and protects the public and environment by describing how the contents of the Revolution Pipeline would be removed in a safe and environmentally protective manner prior to permanent stabilization in the event of a leak or release caused by a landslide or otherwise.
FF. ETC’s failure to prepare and implement a PPC Plan that satisfies regulatory requirements and provides for safe and environmentally protective removal of petrochemicals, Natural Gas, or Brine it may store, use, or transport within the Revolution Pipeline is a violation of 25 Pa. Code §§ 78a.55(a) and 102.5(l).

GG. The violations described in Paragraphs AA through FF, above, constitute unlawful conduct under Section 3259 of the 2012 Oil and Gas Act, 58 Pa C.S. § 3259, and Section 611 of The Clean Streams Law, 35 P.S. § 691.611.

ORDER

NOW, THEREFORE, pursuant to Section 3253 of the 2012 Oil and Gas Act, 58 Pa. C.S. § 3253; Sections 5, 316, 402, and 610 of The Clean Streams Law, 35 P.S. §§ 691.5, 691.316, 691.402, and 691.610; and Section 1917-A of the Administrative Code, 71 P.S. § 510-17, the Department hereby ORDERS the following:

1. **Cessation of and Prohibition on Use of Sections of the Revolution Pipeline.**
   a. ETC shall not place or flow Natural Gas, or other flammable gases, or Brine in any part of the Revolution Pipeline located in the Unstable Slopes (as identified by pipeline station numbers in Exhibit C), and the same is prohibited, until:
      i. the Department has approved, in writing, the Stability Analyses as required by Paragraph 6.a. of the Letter; and
      ii. the Department has determined, in writing, that the Stability Analyses and the Permanent Stabilization Plan have been fully implemented by ETC.
   b. If ETC has already placed Natural Gas, other flammable gases, or Brine in the Revolution Pipeline, ETC shall promptly and safely remove those gases and fluids from the
Revolution Pipeline using techniques and procedures that will prevent fire, explosion, and pollution, and otherwise protect human health and safety and the environment.

2. **Submission of PPC Plan.**
   
a. Within **thirty (30) calendar days** of the date of this Order, ETC shall develop an adequate PPC Plan that includes, but is not limited to, how Natural Gas, other flammable gases, petrochemicals, or Brine will be safely removed from the Revolution Pipeline, and/or prevented from reaching the environment, in an environmentally safe and protective manner in the event of a leak or release or catastrophic incident, such as a landslide that separates or ruptures, or risks the separation or rupture of, the Revolution Pipeline and submit it to the Department, correcting the deficiencies set forth in Paragraphs AA-FF, above.

   b. ETC shall fully address any deficiencies identified by the Department in the submission(s) required under this paragraph within fourteen (14) calendar days of notice of the deficiency.

3. All correspondence with the Department concerning this Order shall be addressed as follows:

   Daniel F. Counahan  
   District Oil and Gas Operations  
   Pennsylvania Department of Environmental Protection  
   400 Waterfront Drive  
   Pittsburgh, PA 15222-4745

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board) pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A. The Board’s address is:
TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800-654-5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board’s rules of practice and procedure may be obtained online at http://ehb.courtapps.com or by contacting the Secretary to the Board at 717-787-3483. The Notice of Appeal form and the Board’s rules are also available in braille and on audiotape from the Secretary to the Board.

IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717-787-3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.
IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.

FOR THE COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION:

Daniel F. Counahan
District Oil and Gas Manager
Southwest District Oil and Gas Operations
EXHIBIT A
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

IN THE MATTER OF:

ETC Northeast Pipeline, LLC
6051 Wallace Road Extension, 3rd Floor
Wexford, PA 15090

: The 2012 Oil and Gas Act
: The Clean Streams Law
: Dam Safety and Encroachments Act

CONSENT ORDER AND AGREEMENT

This Consent Order and Agreement is entered into this 2nd day of
January 2020, by and between the Commonwealth of Pennsylvania, Department
of Environmental Protection ("Department") and ETC Northeast Pipeline, LLC ("ETC").

The Department has found and determined the following:

A. The Department is the agency with the duty and authority to administer and
- 691.1001 ("The Clean Streams Law"); the Oil and Gas Act, Act of February 14, 2012, P.L. 87,
No. 13, 58 Pa. C.S. §§ 3201 – 3274 ("2012 Oil and Gas Act"); the Dam Safety and
693.27 ("Dam Safety Act"); Section 1917-A of the Administrative Code of 1929, Act of April 9,
1929, P.L. 177, as amended, 71 P.S. § 510-17 ("Administrative Code"); and the rules and
regulations ("Regulations") promulgated thereunder.

B. ETC is a Delaware limited liability company doing business in Pennsylvania with
a local mailing address of 6051 Wallace Road Extension, 3rd Floor, Wexford, PA 15090. ETC
owns and operates multiple pipelines in Pennsylvania used to transport natural gas products,
including the Revolution Pipeline.
C. At all times relevant to the matters set forth in this Consent Order and Agreement, ETC has been a “person” and the “owner” and “operator” of the Revolution Pipeline, as those terms are defined in Section 1 of The Clean Streams Law, 35 P.S. § 691.1, Section 3 of the Dam Safety Act, 32 P.S. § 693.3, and Sections 102.1 and 105.1 of the Regulations, 25 Pa. Code §§ 102.1 and 105.1.

D. With a length of approximately 40.5 miles, the Revolution Pipeline is located in Jackson Township, Butler County; New Sewickley, Conway, Center, Raccoon, and Independence Townships, Beaver County; Findlay Township, Allegheny County; and Robinson and Smith Townships, Washington County. Construction of the Revolution Pipeline was permitted to disturb approximately 700 acres of land. Construction of the Revolution Pipeline commenced in 2017. Site work and restoration of the Revolution Pipeline is continuing as of the date of this Consent Order and Agreement.

E. Earth disturbances necessary for the construction of the Revolution Pipeline are subject to Erosion and Sedimentation Control General Permit authorizations ESG 00007160001, ESG 000716001, and ESG 00007170002 (collectively “ESCGPs”). The ESCGPs provide that “[a]ny permit non-compliance constitutes a violation of The Clean Streams Law, the 2012 Oil and Gas Act….” The ESCGPs also require ETC to assure that the all earth disturbance activity is done in accordance with the drawings contained in the permit applications as well as the terms and conditions set forth in the ESCGPs.

F. The ESCGPs include the boundary/limit of earth disturbance within which ETC can perform earth disturbance activities (including installation of best management practices (“BMPs”) to construct the Revolution Pipeline (“LOD”)). The earth disturbance permitted under the ESCGP generally included the installation of the BMPs to minimize accelerated erosion and
sedimentation and manage stormwater, moving earth to install the pipeline, and stabilizing the site within the LOD.

G. ETC also received general permit registrations granted pursuant to the Dam Safety Act ("Encroachment Permits") for limited "encroachments" upon specified waters of the Commonwealth.

H. The earth disturbance associated with the construction of the Revolution Pipeline, including the placement of the pipe below the surface of the ground, the welding of the pipe, and the covering of the pipe, commenced on or about March 14, 2017. ETC reported that the Revolution Pipeline was mechanically complete and ready to be placed into commercial service on or about June 1, 2018. ETC had attempted to stabilize some areas of the LOD; however, neither temporary nor permanent stabilization, as required pursuant to 25 Pa. Code Chapter 102, had been achieved within all areas of the LOD, as of September 10, 2018.

I. On September 10, 2018, a landslide occurred at approximate pipeline station 1116+09, about 0.4 miles southwest of the intersection of Ivy Lane and Brodhead Road in Center Township, Beaver County, Pennsylvania ("Incident Site"). The landslide originated from unstabilized areas within the Revolution Pipeline LOD at that location. The landslide overtopped BMPs beyond the LOD, and caused a sediment discharge into Raccoon Creek, a water of the Commonwealth. When the landslide occurred, a section of the Revolution Pipeline separated. Gas escaped from the Revolution Pipeline and ignited, causing a conflagration that: burned 2 to 4 acres of trees; destroyed a single-family home, a barn, and numerous vehicles; resulted in the evacuation of the residents living nearby; and caused six high voltage electric transmission towers to collapse.
J. Between September 10 and October 28, 2018, at certain sections along the length of the Revolution Pipeline, ETC:

i. Failed to properly implement and maintain BMPs;

ii. Failed to either temporarily or permanently stabilize numerous sections of the LOD along the length of the pipeline;

iii. Impacted numerous streams and wetlands without authorization;

iv. Conducted earth disturbance activities outside the approved LOD along numerous sections of the pipeline;

v. Failed to install numerous BMPs in accordance with the ESCGPs; and

vi. Permitted sediment laden discharges to waters of the Commonwealth to occur.

K. On October 29, 2018, the Department issued a Compliance Order ("2018 Order") to ETC addressing erosion and sedimentation and stability issues with the Revolution Pipeline LOD. The 2018 Order required ETC to, inter alia, cease all earth disturbance activities other than those necessary to repair and maintain existing BMPs, immediately cease all sediment laden discharges to waters of the Commonwealth, and prepare submittals for Department review. The 2018 Order is attached hereto as Exhibit A.

M. On January 10, 2019, ETC was notified via letter that it had failed to comply with the 2018 Order ("Noncompliance Notice"). The Noncompliance Notice is attached hereto as fully incorporated into this Consent Order and Agreement as Exhibit B. As of the date of the Noncompliance Notice, ETC:

i. Failed to cease sediment laden discharges to waters of the Commonwealth at certain sections along the Revolution Pipeline;

ii. Failed to install flagging, markers, or signs at the site;

iii. Failed to temporarily stabilize disturbed areas, including areas of ongoing mass earth movement at certain sections along the Revolution Pipeline;

iv. Failed to submit a Temporary Stabilization Plan describing all temporary stabilization activities and sequences, including the proper placing, grading, constructing, reinforcing, lining, and covering of soil, rock, or earth to ensure their resistance to erosion, sliding, or other movement;

v. Failed to submit an updated Erosion and Sediment Control Plan ("E&S Plan") that fully complied with the requirements of 25 Pa. Code §102.4(b)(5)(i-xv); and

vi. Failed to submit an updated Post Construction Stormwater Management Plan ("PCSM Plan") that fully complied with the requirements of 25 Pa. Code §102.8(f)(1-15) and 102.8(g).

N. On February 8, 2019, the Department petitioned Commonwealth Court to enforce the 2018 Order. On March 26, 2019, the Department and ETC resolved the petition to enforce through a Stipulated Order entered before the Commonwealth Court at docket number 69 M.D. 2019 ("Stipulated Order"). The Stipulated Order is attached hereto as Exhibit C.
O. Also on February 8, 2019, the Department issued a letter providing: “[E]ffective immediately the Department of Environmental Protection (Department) will be withholding the issuance of any approvals (as specified below) requested by ETC Northeast Pipeline LLC (ETC); Sunoco Pipeline LLP; Energy Transfer LP (ET); and any other subsidiary of ET.” (“Permit Bar”). The Permit Bar further provided that “[t]his hold on approvals applies to any requests for approvals/permits or permit amendments made by ET or its subsidiaries pursuant to…the August 10, 2017 Corrected Stipulated Order docketed with the Pennsylvania Environmental Hearing Board at 2017-009-L.” The Permit Bar is attached as Exhibit D. ETC, Sunoco, and ETLP appealed the Department’s action to the Environmental Hearing Board. The appeal was subsequently docketed at 2019-021-R.

P. On or about April 30, 2019, ETC submitted an updated PCSM Plan. Review of the PCSM Plan has been pending while the Department reviewed ETC’s multiple revisions of its Temporary Slope Stabilization Plan (“Stabilization Plan”), Landslide Hazard Evaluation and Temporary Slope Stabilization Plan (“Landslide Plan”), and the Updated Erosion and Sedimentation Pollution Control Plan (“ESC Plan”) that were required by the Department.

Q. On December 13, 2019, the Department issued a letter, attached hereto as Exhibit E (the “Letter”), conditionally approving ETC’s Stabilization Plan, Landslide Plan, and ESC Plan.

R. Based upon the subsequent revisions to ETC’s Temporary Slope Stabilization Plan, Landslide Hazard Evaluation and Temporary Slope Stabilization Plan, and Erosion and Sedimentation Pollution Control Plan noted in Paragraph Q, above, and approved in the Letter, the PCSM Plan submitted on April 30, 2019 will require revisions.
S. The violations identified in Paragraphs M.i. and M.iii. through M.v., above, were ongoing as of December 9, 2019.

T. In addition, from February 5, 2018 to December 13, 2019, the following occurred at the Revolution Pipeline:

i. At least nineteen (19) distinct sections of the Revolution Pipeline were not temporarily or permanently stabilized, which resulted in numerous slides within and outside of the LOD;

ii. At least 352 separate occurrences of accelerated erosion and sedimentation;

iii. At least 868 BMPs were not properly implemented or maintained;

iv. Construction of the Revolution Pipeline went beyond the approved LOD in at least 823 distinct areas;

v. Sediment laden water was discharged on at least 540 different occasions into, at minimum, the following waters of the Commonwealth and/or their tributaries – Raccoon Creek, Service Creek, Frames Run, Pine Run, Crows Run, Brush Creek, Obney Run, and wetlands;

vi. At least 1,359 BMPs were either not installed or installed improperly, contrary to the ESCGPs; and

vii. On at least 244 occasions, ETC did not submit corrective action reports after BMP failures.

U. On or before the effective date of this Consent Order and Agreement, while constructing the Revolution Pipeline project, ETC, *inter alia*:
i. Eliminated at least twenty-three (23) streams by removing and/or filling the stream channels with soil during construction activities, resulting in a loss of approximately 1,857 linear feet of stream channel;

ii. Changed the length of at least one hundred twenty (120) streams by manipulating and/or filling the stream channels with soil during construction activities resulting in a net loss of approximately 1,310 feet of stream channel; and

iii. Eliminated at least seventeen (17) and altered at least seventy (70) wetland areas by manipulating and/or filling wetlands with soil.

iv. These encroachments and water obstructions are collectively referred to herein as the “Unpermitted Water Obstructions and Encroachments.” (The list of ETC’s stream and wetland impacts identified to date is attached as Exhibit F).

V. The Unpermitted Water Obstructions and Encroachments were not identified in ETC’s application materials for the Encroachment Permits and were not permitted in either the ESCGPs or the Encroachment Permits.

W. On May 14, 2019 the Department issued a second Compliance Order (“2019 Order”) to ETC regarding the violations identified in Paragraph U, above. ETC appealed the 2019 Order to the Environmental Hearing Board. That appeal was docketed at 2019-054-R. The 2019 Order required ETC to, inter alia,

i. Identify all waters of the Commonwealth impacted by the Revolution Pipeline;

ii. Submit a report to the Department summarizing its investigation (“Waters Restoration Plan”);
iii. Submit a plan and schedule to restore impacted waters of the Commonwealth ("Waters Restoration Plan"); and

iv. Submit permit applications to conduct restoration and mitigation work needed to achieve compliance. (The 2019 Order is attached hereto as Exhibit G).

X. In January 2016, ETC analyzed the geology of the Revolution Pipeline and concluded that the area of the Incident Site had a high susceptibility to slope failure ("Geohazard Report").

Y. Section 2.3 of the narrative portion ("Narrative") of the ESCGPs states that "Construction activities in areas susceptible to slope failure should be investigated and evaluated by a licensed Geotechnical Engineer to address any stability issues. Underdrains are to be installed at locations determined by the Geotechnical Engineer, if saturated zones are encountered...." ("ESCGP Geohazard Requirements"). The Department’s investigation found that ETC did not inform the engineers who sealed the ESCGP application with their P.E. seal of the Geohazard Report or the findings contained therein.

Z. In April 2018, during the restoration of the Revolution Pipeline, an internal ETC report stated that:

[a] slip that developed from the unrestored right of way near station 1115+00 went down the slope of the right of way under the power transmission line all the way down to Raccoon Creek. . . . The slip broke off at the edge of the right of way very close to the ditch line and there is a significant and very steep drop off on the edge of the ditch-line which will make it difficult to restore properly.

This "slip" occurred approximately thirty (30) feet from the landslide at Incident Site. ETC was in the process of attempting to stabilize the area by drying out saturated soil, moving that soil back uphill, and installing underdrains without a permit at locations in this saturated zone as determined by persons in the field. The Department’s investigation found that neither an
engineer nor any other geotechnical expert was consulted by field staff when this work was performed.

AA. The Narrative contained in the ESCGP permit application and incorporated into the ESCGP required ETC to follow a construction sequence (the “Construction Sequence”) by having only fifty (50) feet of excavated trench open at any one time and requiring ETC to backfill the trench and apply soil supplements, mulch, and seed to the filled trench within seven (7) days after installation of the pipeline. More specifically, Section 2.7.2, No. 11, of the Narrative stated that, “The total length of excavated trench open at any one time should not be greater than the total length of the pipeline that can be placed in the trench and back-filled in one (1) working day.” ETC did not follow those requirements.

BB. The Department’s investigation found that, from the commencement of construction on March 14, 2017 to September 10, 2018, ETC failed to inform the people that performed construction work on the Revolution Pipeline of the ESCGP Geohazard Requirements, the Construction Sequence, or any other part of the Narrative of the ESCGP.

CC. On the dates and at the locations set forth above, ETC:

i. Violated 25 Pa. Code §§ 78a.53 and 102.22(b)(1) by failing to implement and maintain temporary stabilization of the Revolution Pipeline;

ii. Violated 25 Pa. Code §§ 78a.53 and 102.22(a) by failing to permanently stabilize areas of the Revolution Pipeline and protect it from accelerated erosion and sedimentation;

iii. Violated 25 Pa. Code §§ 78a.53, 102.4(b)(1), and 102.11(a)(1) by failing to implement and maintain BMPs on areas of the Revolution Pipeline to minimize the potential for accelerated erosion and sedimentation;
iv. Violated 25 Pa. Code §§ 78a.53 and 102.5(m)(4) by failing to comply with
the terms of the ESCGPs;

v. Violated 25 Pa. Code §§ 78a.53and 102.5(c) by failing to obtain
modifications to its Erosion and Sediment Control General Permits prior to exceeding the LOD;

vi. Violated Sections 301 and 401 of The Clean Streams Law, 35 P.S.
§§ 691.301 and 691.401, by discharging industrial waste into waters of the Commonwealth in a
manner not authorized by the rules and regulations of the Department;

vii. Violated 25 Pa. Code § 78a.68(b) by failing to maintain flagging, markers,
or signs throughout earth disturbance activities and restoration or PCSM activities;

Code § 105.11(a) by encroaching upon waters of the Commonwealth without a permit;

ix. Violated Section 401 of The Clean Streams Law, 35 P.S. § 691.401, by
polluting waters of the Commonwealth by filling streams and wetlands with soil, resulting in
their alteration and/or elimination; and

x. Violated Section 3259 of the 2012 Oil and Gas Act, 58 Pa. C.S. § 3259 by
failing to comply with the 2018 Order.

DD. The violations described in Paragraph CC, above, constitute unlawful conduct
under Section 3259 of the 2012 Oil and Gas Act, 58 Pa. C.S. § 3259, Section 18 of the Dam
Safety Act, 32 P.S. § 693.18, and Section 611 of The Clean Streams Law, 35 P.S. § 691.611; a
statutory nuisance under Section 3252 of the 2012 Oil and Gas Act, 58 Pa. C.S. § 3252, Section
19 of the Dam Safety Act, 32 P.S. § 693.19, and Section 307 of The Clean Streams Law, 35 P.S.
§ 691.307; and subject ETC to a claim for civil penalties under Section 3256 of the 2012 Oil and

ORDER and AGREEMENT

After full and complete negotiation of all matters set forth in this Consent Order and Agreement and upon mutual exchange of covenants contained herein, the parties desiring to avoid litigation and intending to be legally bound, it is hereby ORDERED by the Department and AGREED to by ETC as follows:

1. **Authority.** This Consent Order and Agreement is an Order of the Department authorized and issued pursuant to Section 20 of the Dam Safety and Encroachments Act, 32 P.S. § 693.20; Sections 5, 402, and 610 of The Clean Streams Law, 35 P.S. §§ 691.5, 691.402, and 691.610; Section 3253 of the 2012 Oil and Gas Act, 58 Pa. C.S. § 3253; and Section 1917-A of the Administrative Code, 71 P.S. § 510-17.

2. **Findings.**
   a. ETC agrees that the findings in Paragraphs A through G, above, are true and correct, and, in any matter or proceeding involving ETC and the Department, ETC shall not challenge the accuracy or validity of these findings.
   b. The parties do not authorize any other persons to use the findings in this Consent Order and Agreement in any matter or proceeding.

3. **Corrective Action.**
   a. **Implementation of Plans.** ETC shall fully implement the approved Temporary Slope Stabilization Plan, Landslide Hazard Evaluation, and Erosion and Sedimentation Pollution Control Plan as required in the Letter.
i. The terms and conditions of the Letter are hereby incorporated herein as if fully set forth.

ii. The terms and conditions of the Letter constitute an Order of the Department.

iii. ETC shall fully comply with the terms and conditions of the Letter in accordance with the schedule set forth therein.

iv. Upon approval of the PCSM Plan and/or the Permanent Stabilization Plan by the Department, any outstanding work remaining under the Temporary Slope Stabilization Plan, Landslide Hazard Evaluation, and Erosion and Sedimentation Pollution Control Plan shall be superseded, and ETC shall implement the PCSM Plan and/or the Permanent Stabilization Plan.

b. EHB Appeals, Permit Bar.

i. Within five (5) days of the effective date of this Consent Order and Agreement, ETC shall settle the appeals docketed at 2019-021-R and 2019-054-R through a “Homes of Distinction” settlement on a form attached hereto as Exhibit H. ETC shall cause Sunoco Pipeline LP, and Energy Transfer LP to join in the settlement of the appeal docketed at 2019-021-R.

ii. Upon the Environmental Hearing Board marking the docket in all of these matters as settled and discontinued and not retaining jurisdiction, the Permit Bar shall be automatically lifted.

iii. Upon the appeals docketed at 2019-021-R and 2019-054-R being marked closed and discontinued, the Department shall proceed with the timely processing of any requests for approvals/permits or permit amendments
(“Requests”) addressed by the Permit Bar that have been reviewed by the Department and found to satisfy the requirements of applicable law and regulation. Approvals, permits, and permit amendments for pending Requests shall be issued in accordance with the requirements of law and regulation.

c. Wetland Verification.

i. The Department’s contracted consultant (“Consultant”) will conduct a wetland and stream evaluation of each site where ETC proposes to conduct on-site restoration and of all sites where off-site mitigation has been selected to confirm that the delineations submitted to the Department pursuant to the 2019 Order were accurate and that all damaged resources are being restored and/or mitigated under this Consent Order and Agreement (“Wetland/Stream Evaluation”). The Wetland/Stream Evaluation shall follow wetlands classification and delineation accepted by the U.S. Army Corps of Engineers. ETC will be notified of any field work conducted by the Consultant or the Department and have the opportunity but not the obligation to accompany the wetlands and stream specialist during all field work. ETC shall reimburse the Department for all expenses associated with the Wetland/Stream Evaluation within thirty (30) days of ETC’s receipt of invoice for the Consultant’s services described in this paragraph.

ii. ETC will be provided a copy of the Wetland/Stream Evaluation upon issuance. If the Wetland/Stream Evaluation determines that more water resources that were adversely impacted by the Revolution Pipeline Project than
has been represented by ETC, ETC shall create additional mitigation equal to the additional water resources identified in the Wetland/Stream Evaluation.

d. Off-Site Mitigation.

i. On or before January 15, 2020, ETC shall submit full and complete plans, including, but not limited to, waivers, registrations, and/or permit applications ("Mitigation Plans") to address off-site mitigation ("Mitigation Site") for those impacts described above that cannot be restored on-site. ETC shall also submit a plan to monitor the success of ETC’s proposed mitigation at the Mitigation Site, setting forth the quantitative performance measures that ETC proposes to use to verify the success of the proposed mitigation measures ("Monitoring Plan"). The Mitigation Plans and Monitoring Plan are collectively referred to herein as "Plans".

ii. Upon approval of the Plans, ETC shall fully implement the work authorized by the Department consistent with the mitigation measures proposed in the Mitigation Plans and the terms and conditions of the Department’s approvals.

iii. ETC shall initiate construction of the mitigation measures included in the Mitigation Plans within forty-five (45) days of approval of the Plans by the Department and the U.S. Army Corps of Engineers. On the day construction commences, ETC shall verify the commencement of construction by sending a status report describing the work that is being performed and photographs documenting that work.
iv. ETC shall complete construction of all proposed mitigation measures at the Mitigation Site within one hundred twenty (120) days of commencement of construction.

v. ETC shall monitor the Mitigation Site for not less than five (5) years and provide annual reports in the manner set forth in the Monitoring Plan.

e. **On-Site Restoration.**

i. Upon approval of the Chapter 105 Joint Permit Application permit ("Joint Permit") for on-site restoration, ETC shall fully implement the work authorized by the Joint Permit consistent with all terms and conditions contained therein and with the plans set forth in the joint permit application.

ii. ETC shall initiate construction of the restoration measures authorized by the Department and the U.S. Army Corp of Engineers within thirty (30) days of Joint Permit issuance. On the day construction commences, ETC shall verify the commencement of construction by sending a status report describing the work that is being performed and photographs documenting that work.

iii. ETC shall complete construction of all restoration measures proposed in its permit applications and approved by the Department within one hundred twenty (120) days of the issuance of the Joint Permit; however, if the approval date thereof falls between June 1st and March 15th, ETC shall begin implementing the work no later than the following April 1st, and such work shall be completed in conformance with the authorization within one hundred twenty (120) days from commencement of the work.
iv. ETC shall monitor the on-site restoration sites for not less than five (5) years and provide annual reports in the manner required in the Joint Permit and by the supporting permit application materials.

f. In addition to the Eleventh Amendment of the United States Constitution or other statutory and constitutional governmental immunities, ETC hereby releases the Department and any Department employee or agent of and for liability or responsibility, if any, related to this matter or ETC’s failure to meet any of deadlines set forth herein through the date of this Consent Order and Agreement.

g. Mitigation Reserve for On-Site Restoration. Upon execution of this Consent Order and Agreement, ETC must reserve within forty-five (45) days of the execution of this Consent Order and Agreement the equivalent of eight times the total on-site acreage that ETC proposes to restore, in mitigation credits to cover all on-site restoration acres. These credits shall be within the Revolution Pipeline watershed unless no such credits are available. ETC must hold those credits until the Department approves the year 5 report and the on-site restoration has been deemed successful and viable long term, at which time ETC can release, sell, or otherwise use those mitigation credits.

h. Deadlines, Compliance, Notice of Violations.

i. If ETC fails to meet any deadline contained in this Consent Order and Agreement or an approved plan addressed by this Consent Order and Agreement, upon receiving written notice from the Department of ETC’s failure to meet a deadline or deadlines herein, ETC must stop all non-remedial work previously approved by the Department on the Revolution Pipeline, and ETC
shall cease and desist all such work until ETC achieves compliance with the missed deadline, as determined by the Department.

ii. If the Department issues a Notice of Violation regarding the Revolution Pipeline project for conditions arising after the date of this Consent Order and Agreement, then the Department may hold a telephonic hearing no less than 24 hours after the issuance of the Notice of Violation in order to determine whether to invoke the penalty provision set forth in Section 609 of The Clean Streams Law, 35 P.S. § 691.609 ("Section 609"), until ETC achieves compliance with the matters set forth in the Notice of Violation, as determined by the Department.

iii. If, following the telephonic hearing set forth above, the Department invokes the penalty provision set forth in Section 609, ETC reserves the right to immediately raise any and all factual and legal issues it could have raised notwithstanding this Consent Order and Agreement in a proceeding before the Pennsylvania Environmental Hearing Board, subject to the Environmental Hearing Board’s rules and regulations and state law. However, the parties agree that the Department shall not raise the defense of administrative finality.

iv. The parties, on behalf of their subsidiaries also, hereby agree and confirm that in any future action the Department may take pursuant to pursuit of a permit bar under Section 609, both parties will not be prevented from and have mutually agreed upon rights to present evidence and legal arguments related to all prior CSL actions and activities by ETC and its related entities in support of or opposing the imposition of a Section 609 permit bar. This and other prior
settlements shall not preclude consideration of the full factual history of this matter by a court or tribunal.

i. On or before May 1, 2020, or within sixty (60) days after the Department approves the Permanent Stabilization Plan, whichever is later, ETC shall submit to the Department for review and approval an updated PCSM Plan that is consistent with the revisions in the approved Temporary Slope Stabilization Plan, Landslide Hazard Evaluation and Temporary Slope Stabilization Plan, and Erosion and Sedimentation Pollution Control Plan, and the requirements of 25 Pa. Code Chapter 102. The Department may approve, approve with modifications, or deny the PCSM Plan. Upon approval by the Department, ETC shall implement the PCSM Plan as approved in accordance with the approved implementation schedule and construction sequences.

j. If the Department notifies ETC in writing of deficiencies in any document submitted pursuant to this Consent Order and Agreement, ETC shall respond to those deficiencies in writing within fourteen (14) days of its receipt of the deficiency notice, unless the Department has indicated a different time for response or unless ETC requests in writing and receives from the Department a written extension of time for responding to the deficiencies, which extension shall not be unreasonably withheld.

k. Except as expressly addressed herein, nothing in this Consent Order and Agreement shall be construed to supersede ETC’s compliance with the Stipulated Order.

4. **Civil Penalty Settlement and Community Environmental Project.**

a. Within 30 days of signing this Consent Order and Agreement, ETC shall pay and consents to the assessment of a civil penalty of TWENTY-EIGHT MILLION, SIX HUNDRED ELEVEN THOUSAND, NINE HUNDRED DOLLARS ($28,611,900.00). This
payment is in settlement of the Department’s claim for civil penalties for the violations set forth in Paragraph CC, above, covering the period from initiation of construction to the entry of this Consent Order and Agreement. The payment shall be paid by corporate check or the like, made payable to the “Commonwealth of Pennsylvania” and sent to: Daniel F. Counahan, District Manager, Pennsylvania Department of Environmental Protection Southwest District Oil and Gas Operations, 400 Waterfront Drive, Pittsburgh, PA 15222-4745, or by wire transfer to the account number provided by the Department for deposit by the Department into the appropriate special funds, as identified by the Department.

b. In addition to the civil penalty set forth in Paragraph 4.a, above, ETC shall pay and consents to the assessment of TWO MILLION DOLLARS ($2,000,000.00) which may be paid by ETC by performing a community environmental project or projects (individually or collectively, “Community Environmental Project”) acceptable to the Department. If the Department does not approve ETC’s proposed Community Environmental Project within ninety (90) days of execution of this Consent Order and Agreement, then ETC shall pay the civil penalty amount in this Paragraph 4.b. within one hundred twenty (120) days of execution of this Consent Order and Agreement.

c. Within sixty (60) days of execution of this Consent Order and Agreement, ETC may submit a detailed proposal for a Community Environmental Project that will benefit to the environment of Pennsylvania and the waters of the Commonwealth for the Department’s review. No funds utilized under the Community Environmental Project shall be expended for administrative or oversight costs, nor used to fulfill any activity required of ETC under law. Any funds that have not been utilized to fulfill the purpose of the approved Community Environmental Project within three (3) years from the execution of this Consent Order and
Agreement shall be paid to the Department as civil penalties pursuant to Paragraph 4.b. and to the address and person set forth in Paragraph 4.a., within sixty (60) days of termination of that time period.

d. ETC shall not deduct any costs incurred in connection with or in any way associated with the Community Environmental Project described in Paragraph 4.c for any tax purpose or otherwise obtain favorable tax treatment for those costs. If requested to do so by the Department, ETC shall submit an affidavit of the official responsible for the financial affairs of ETC certifying that ETC has not deducted or otherwise obtained favorable tax treatment of any of the costs of the Community Environmental Project.

e. ETC agrees that whenever it publicizes, in any way, the Community Environmental Project, it will state that the Project was undertaken as part of the settlement of an enforcement action with the “Commonwealth of Pennsylvania, Department of Environmental Protection.”

f. ETC shall submit to the Department an affidavit of the official responsible for overseeing the Project every ninety (90) days, beginning upon the approval by the Department of ETC’s proposed Community Environmental Project. The affidavit shall describe the dates and amounts of all funds allocated and expended on the Community Environmental Project, including but not limited to details sufficient to indicate the uses of the funds and the progress of the Community Environmental Project. ETC shall provide the Department with any other documentation and information requested by the Department. This requirement does not waive any power the Department has to require ETC to provide documentation pursuant to law.
5. **Stipulated Civil Penalties.**

   a. In the event ETC fails to comply in a timely manner with any term or provisions of this Consent Order and Agreement, ETC shall be in violation of this Consent Order and Agreement and, in addition to other applicable remedies, shall pay a civil penalty in the amount of $20,000 per day for each violation.

   b. Stipulated civil penalty payments shall be payable monthly on or before the fifteenth day of each succeeding month, and shall be forwarded as described in Paragraph 4 (Civil Penalties), above.

   c. Any payment under this paragraph shall neither waive the ETC’s duty to meet its obligations under this Consent Order and Agreement, nor preclude the Department from commencing an action to compel ETC’s compliance with the terms and conditions of this Consent Order and Agreement. The payment resolves only ETC’s liability for civil penalties arising from the violations of this Consent Order and Agreement for which the payment is made.

   d. Stipulated civil penalties shall be due automatically and without notice.

6. **Additional Remedies.**

   a. In the event ETC fails to comply with any provision of this Consent Order and Agreement, the Department may, in addition to the remedies prescribed herein, pursue any remedy available for a violation of an order of the Department, including an action to enforce this Consent Order and Agreement.

   b. The remedies provided by this paragraph and Paragraph 5 (Stipulated Civil Penalties) are cumulative, and the exercise of one does not preclude the exercise of any other. The failure of the Department to pursue any remedy shall not be deemed to be a waiver of
that remedy. The payment of a stipulated civil penalty, however, shall preclude any further
assessment of civil penalties for the violation for which the stipulated penalty is paid.

7. **Reservation of Rights.** The Department reserves all other rights with respect to
any matter addressed by this Consent Order and Agreement, including the right to require
abatement of any conditions resulting from the events described in the Findings. ETC reserves
the right to challenge any action which the Department may take, but waives the right to
challenge the content or validity of this Consent Order and Agreement.

8. **Liability of Operator.** ETC shall be liable for any violations of the Consent
Order and Agreement, including those caused by, contributed to, or allowed by its officers,
agents, employees, or contractors. ETC also shall be liable for any violation of this Consent
Order and Agreement caused by, contributed to, or allowed by its successors and assigns.

9. **Transfer of Site.**

   a. The duties and obligations under this Consent Order and Agreement shall
      not be modified, diminished, terminated, or otherwise altered by the transfer of any legal or
      equitable interest in the Revolution Pipeline Project or any part thereof.

   b. If ETC intends to transfer any legal or equitable interest in the Revolution
      Pipeline Project which is affected by this Consent Order and Agreement, ETC shall serve a copy
      of this Consent Order and Agreement upon the prospective transferee of the legal and equitable
      interest at least thirty (30) days prior to the contemplated transfer and shall simultaneously
      inform the Southwest Oil and Gas District Office of the Department of such intent.

   c. The Department in its sole discretion may agree to modify or terminate
      ETC’s duties and obligations under this Consent Order and Agreement upon transfer of the
Revolution Pipeline Project. ETC waives any right that it may have to challenge the Department's decision in this regard.

10. **Correspondence with Department.** All correspondence with the Department concerning this Consent Order and Agreement shall be addressed to:

    April Weiland, Environmental Group Manager
    Pennsylvania Department of Environmental Protection
    Southwest District Oil and Gas Operations
    Cambria District Office
    286 Industrial Park Road
    Ebensburg, PA 15931-4119
    814-472-1820
    apweiland@pa.gov

11. **Correspondence with ETC.** All correspondence with ETC concerning this Consent Order and Agreement shall be addressed to:

    Eric Tkacik
    ETC Northeast Pipeline, LLC
    6051 Wallace Run Extension
    Wexford, PA 15090
    412-375-7542
    Eric.Tkacik@energytransfer.com

ETC shall notify the Department whenever there is a change in the contact person's name, title, or address. Service of any notice or any legal process for any purpose under this Consent Order and Agreement, including its enforcement, may be made by mailing a copy by first class mail to the above address.

12. **Force Majeure.**

   a. In the event that ETC is prevented from complying in a timely manner with any time limit imposed in this Consent Order and Agreement solely because of a strike, fire, flood, act of God, or other circumstance beyond ETC’s control and which ETC, by the exercise of all reasonable diligence, is unable to prevent, then ETC may petition the Department for an
extension of time. An increase in the cost of performing the obligations set forth in this Consent Order and Agreement shall not constitute circumstances beyond ETC’s control. ETC’s economic inability to comply with any of the obligations of this Consent Order and Agreement shall not be grounds for any extension of time.

b. ETC shall only be entitled to the benefits of this paragraph if it notifies the Department within five (5) working days by telephone and within ten (10) working days in writing of the date it becomes aware or reasonably should have become aware of the event impeding performance. The written submission shall include all necessary documentation, as well as a notarized affidavit from an authorized individual specifying the reasons for the delay, the expected duration of the delay, and the efforts which have been made and are being made by ETC to mitigate the effects of the event and to minimize the length of the delay. The initial written submission may be supplemented within ten working days of its submission. ETC’s failure to comply with the requirements of this paragraph specifically and in a timely fashion shall render this paragraph null and of no effect as to the particular incident involved.

c. The Department will decide whether to grant all or part of the extension requested on the basis of all documentation submitted by ETC and other information available to the Department. In any subsequent litigation, the ETC shall have the burden of proving that the Department’s refusal to grant the requested extension was an abuse of discretion based upon the information then available to it.

13. **Severability.** The paragraphs of this Consent Order and Agreement shall be severable, and should any part hereof be declared invalid or unenforceable, the remainder shall continue in full force and effect between the parties.
14. **Entire Agreement.** This Consent Order and Agreement shall constitute the entire integrated agreement of the parties regarding the matters set forth herein. No prior or contemporaneous communications or prior drafts shall be relevant or admissible for purposes of determining the meaning or extent of any provisions herein in any litigation or any other proceeding.

15. **Attorney Fees.** The parties shall bear their respective attorney fees, expenses, and other costs in the prosecution or defense of this matter or any related matters, arising prior to execution of this Consent Order and Agreement. For purposes of this paragraph, related matters will be limited to the appeals docketed at EHB Docket numbers 2018-118-R, 2019-021-R, 2019-054-R, and 2019-108-B, and the petition to enforce docketed before the Commonwealth Court at docket number 69 M.D. 2019.

16. **Modifications.** No changes, additions, modifications, or amendments of this Consent Order and Agreement shall be effective unless they are set out in writing and signed by the parties hereto.

17. **Titles.** A title used at the beginning of any paragraph of this Consent Order and Agreement may be used to aid in the construction of that paragraph, but shall not be treated as controlling.

18. **Decisions Under Consent Order.** Any decision which the Department makes under the provisions of this Consent Order and Agreement, including a notice that stipulated civil penalties are due, is intended to be neither a final action under 25 Pa. Code § 1021.2, nor an adjudication under 2 Pa. C.S. § 101. Any objection which ETC may have to the decision will be preserved until the Department enforces this Consent Order and Agreement.
19. **Execution of Agreement.** This Consent Order and Agreement may be signed in counterparts, each of which shall be deemed to be an original and all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Consent Order and Agreement to be executed by their duly authorized representatives. The undersigned representatives of ETC certify, under penalty of law, as provided by 18 Pa. C.S. § 4904, that they are authorized to execute this Consent Order and Agreement on behalf of ETC; that ETC consent to the entry of this Consent Order and Agreement as an Order of the Department; that ETC hereby knowingly waive any right to a hearing under the statutes referenced in this Consent Order and Agreement; and that ETC knowingly waive their right to appeal this Consent Order and Agreement, which rights may be available under Section 4 of the Environmental Hearing Board Act, Act of July 13, 1988, P.L. 530, 35 P.S. § 7514; the Administrative Agency Law, 2 Pa. C.S. § 103(a) and Chapters 5A and 7A; or any other provision of law. Signature by ETC attorney certifies only that the agreement has been signed after consulting with counsel.

FOR ETC NORTHEAST PIPELINE, LLC:

[Signature]

Joseph J. Perez  
Senior Vice President

FOR THE COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION:

[Signature]

daniel F. Counahan  
District Manager  
Southwest District Oil and Gas Operations

[Signature]

Curtis N. Stambaugh  
Attorney for ETC Northeast Pipeline, LLC

[Signature]

Nels J. Taber  
Senior Litigation Counsel
EXHIBIT E

of Consent

Order
December 13, 2019

Via Hand Delivery

Tom Glisson
ETC Northeast Pipeline, LLC
6051 Wallace Run Extension
Wexford, PA 15090

Re: Revolution Pipeline Project (“Project”)
   October 29, 2018 Administrative Order and March 26, 209 Commonwealth Court Order
   ESGCP-2 Permit Nos. ESG0007160001, ESG000716001, ESG0007170002 (“ESCGP’s”)
   Temporary Slope Stabilization Plan, Landslide Hazard Evaluation, and Updated Erosion
   and Sedimentation Pollution Control Plan

Dear Mr. Glisson:

The Department of Environmental Protection ("Department") has reviewed ETC Northeast
Pipeline, LLC’s ("ETC") Temporary Slope Stabilization Plan ("Stabilization Plan"), Landslide
Hazard Evaluation and Temporary Slope Stabilization Plan ("Landslide Plan"), and Erosion and
Sedimentation Pollution Control Plan ("ESC Plan") (collectively the "Plans") submitted pursuant
to the Department's October 29, 2018 Compliance Order regarding the Project. ETC modified
the Plans in response to the deficiencies identified by the Department.

The Plans with the final revisions received through December 9, 2019 are hereby approved
subject to the following conditions (this letter is referred to as the "Conditional Approval of the
Plans"). The terms and conditions of the above referenced Erosion and Sedimentation Control
General Permits remain in full force and effect unless modified herein. The approval of the
Plans does not constitute authorization to modify the pipeline, the pipeline route, or to place the
pipeline into service.

1. This approval is granted, in part, on the Plans provided by ETC. The information
   provided in the Plans by ETC including all appendices, attachments, plans and supporting
documentation are incorporated by reference as part of this approval and are enforceable as a
condition of this authorization. If there is a conflict between the Erosion and Sedimentation
Control General Permits and the Plans, the provisions of the Plans apply.

2. The Mechanized Equipment Use Requests ("MERs") previously authorized in writing by the
   Department are incorporated herein. These include but may not be limited to the following
   MERs: 001, 002, 006, 008, 009, 010, 012, 013, 015, 016, 017, 018 and 019. Any pending
   MERs that have been incorporated into the Plans are superseded by this authorization and are
   approved herein. If there is a conflict between the Plans and the MERs, the more
   environmentally protective provision applies.
3. In order to assess the soil and rock stability, all soil borings collected in accordance with the requirements of this Conditional Approval of the Plans and/or any approved MER shall penetrate through soil and into bedrock. This shall be done so that adequate data is collected and analyzed to complete the requisite stability analyses.

4. The Penny Hollow site (Station 1211+00 to 1219+50) is not subject to this approval and activities outlined in the Plans for the Penny Hollow site cannot commence until such time as this Conditional Approval of the Plans is modified in writing by the Department. By no later than April 30, 2020, ETC shall submit to the Department for review and approval a permanent stabilization plan for the Penny Hollow Site. By that same date, ETC shall determine if the installed sheet pile walls at the Penny Hollow site will be removed or incorporated into the permanent stabilization plan. If ETC intends to remove the sheet pile walls, then the design for permanent stabilization of the Penny Hollow site shall include details on sequencing of sheet pile removal and impacts to Penny Hollow Road.

The Penny Hollow permanent stabilization plan shall include, at a minimum, a stability analysis that achieves a factor of safety of 1.5, unless ETC can demonstrate to the satisfaction of the Department that it cannot meet a factor of safety of 1.5 using generally accepted geotechnical engineering practices, soil borings, collection of site-specific soil samples, and laboratory testing. The laboratory testing shall be performed to verify soil parameters used in the stability analysis. ETC shall conduct laboratory testing of native overburden soils and soft/weak layers within bedrock. Testing shall include moisture content, grain size analysis and Atterberg Limits testing. Testing shall also include shear strength testing of one or more of the following methods: in situ vane shear, direct shear, and/or triaxial shear strength testing. All test results shall be submitted with the stability analysis.

5. For the following sites, ETC shall commence activities in accordance with the Plans; however; by no later than March 1, 2020, ETC shall:

   a. **Elkhorn 1 Station 863+00 to 868+00**: Perform soil borings in accordance with the approved MER(s).

   b. **Elkhorn 2 Station 871+50 to 873+00**: Perform soil borings in accordance with the approved MER(s), collect site-specific soil samples, conduct laboratory testing on the site-specific soil samples, and perform a stability analysis. The laboratory testing shall be performed to verify soil parameters used in the stability analysis. ETC shall conduct laboratory testing of native overburden soils and soft/weak layers within bedrock. Testing shall include moisture content, grain size analysis and Atterberg Limits testing. Testing shall also include shear strength testing of one or more of the following methods: in situ vane shear, direct shear, and/or triaxial shear strength testing.

   c. **Elkhorn 3 Station 885+00 to 888+50**: Perform a stability analysis using the results of the hand augers and hand probes. The results of the hand augers and hand probes shall be submitted with the stability analysis.
d. Incident Site Station 1111+50 to 1125+00: Perform soil borings and geophysical testing in accordance with the approved MER(s), and conduct laboratory testing to verify soil parameters. Complete a revised stability analysis that incorporates the findings of all geotechnical testing. As part of the test boring program at the Incident site, laboratory testing shall be performed to verify soil parameters used in the stability analysis. ETC shall conduct laboratory testing of native overburden soils and soft/weak layers within bedrock. Testing shall include moisture content, grain size analysis and Atterberg Limits testing. Testing shall also include shear strength testing of one or more of the following methods: in situ vane shear, direct shear, and/or triaxial shear strength testing.

e. GAS Raccoon Creek Station 1169+50 to 1173+50: Verify results of the stability analysis using the results of shear testing on structural fill materials.

f. SR151 Station 1495+00 to 1500+00: Perform soil borings in accordance with the approved MER(s), collect site-specific soil samples, conduct laboratory index testing, and verify results of stability analysis using results of shear testing on structural fill materials. ETC shall conduct laboratory testing of native overburden soils and soft/weak layers within bedrock. Testing shall include but not be limited to moisture content, grain size analysis and Atterberg Limits testing.

g. CIS Clinton Frankfort Station 1734+75 to 1735+00: Perform hand augers and hand probes in the fill soils above the pipeline at Station 1734+75. Perform a stability analysis. As a temporary stabilization measure, ETC shall install cellular confinement system at this location.

h. Campbell Hill Road Station 2041+00 to 2044+00: Using the results of the recently performed soil borings, collect site-specific soil samples, conduct laboratory testing, and perform a stability analysis. The laboratory testing shall be performed to verify soil parameters used in the stability analysis. ETC shall conduct laboratory testing of native overburden soils and soft/weak layers within bedrock. Testing shall include moisture content, grain size analysis and Atterberg Limits testing. Testing shall also include shear strength testing of one or more of the following methods: in situ vane shear, direct shear, and/or triaxial shear strength testing.

i. Submit to the Department stability analyses as follows. All test results and boring logs required herein shall be submitted with stability analyses. Each stability analysis shall achieve a factor of safety of 1.5 for any proposed permanent conditions unless ETC can demonstrate to the satisfaction of the Department that it cannot meet a factor of safety of 1.5 using generally accepted geotechnical engineering practices. The borings and collection of samples shall be conducted under the supervision of a qualified, professional engineer and/or professional geologist licensed to practice in the Commonwealth of Pennsylvania with experience in soil and rock slope stability analysis.
6. **Steep Side Slope Fill Segments** ("Steep Side Slope Fill Segments") are gradients of 40 percent or steeper where the pipeline is oriented parallel to contour (side slope) or oblique to contour as identified in Section 7 of the Landslide Plan.

   a. In the design of the permanent stabilization ("Permanent Stabilization") of Steep Side Slope Fill Segments, ETC shall:

   i. Demonstrate that the pipeline is benched into bedrock or dense, weathered rock or dense residual soil and that the pipeline is not supported on fill or colluvium. In order to fulfill this demonstration ETC shall review all past construction records and perform drive probes, hand augers and/or soft digging methods or other methods approved in writing by the Department at adequate and sufficient locations to verify competent bearing soils. By no later than April 1, 2020 ETC shall submit the results of this investigation to the Department.

   ii. Propose a design that achieves a factor of safety of 1.5 unless ETC can demonstrate to the satisfaction of the Department that it cannot meet a factor of safety of 1.5 using generally accepted geotechnical engineering practices

   b. ETC shall submit written notification to the Department 3 days prior to the commencement of the bulk earth disturbance activities at each Steep Side Slope Fill Segment.

   c. By August 1, 2020 and in the event that 70 percent uniform vegetative cover is not established on any Steep Side Slope Fill Segment, ETC shall install an erosion and sedimentation control blanket in accordance with the Pennsylvania Stormwater Best Management Practices Manual (Document 363-0300-002 Dated December 30, 2006).

7. **Permanent Stabilization Plans**: The Permanent Stabilization Plan shall be submitted to the Department by March 1, 2020 and include but may not be limited to the sites in the Conditional Approval of the Plans. The Permanent Stabilization Plan shall include a discussion of the potential loss of cohesion based on wetting or drying of the slope over time and how the loss of cohesion will affect the factor of safety. ETC shall perform additional SPT borings and drive probes to characterize the soil conditions and those results shall be incorporated into the Permanent Stabilization Plans and stability analysis. At any location that borings are proposed, ETC shall conduct laboratory testing of native overburden soils and soft/weak layers within bedrock. Testing shall include moisture content, grain size analysis and Atterberg Limits testing. Testing shall also include shear strength testing of one or more of the following methods: in situ vane shear, direct shear, and/or triaxial shear strength testing. All test results shall be submitted with the stability analysis. The Permanent Stabilization Plan shall include the results of a seismic stability analyses along with the stability analyses.

8. All evidence of high strength material submitted to the Department shall be site specific. At any location where ETC has shown that existing soils will be removed and replaced with compacted structural fill benched into weathered rock and/or bedrock, a qualified, professional
geologist licensed to practice in the Commonwealth of Pennsylvania with experience in structural geology and rock stability evaluations. ("LPG of Record") shall observe the excavations in rock at each site and observe the rock layers, bedding, dip and dip direction of the bedding and fractures/joints, and determine if the underlying rock condition would lead to a factor of safety lower than previously reported by ETC. If unstable rock conditions exist, ETC shall make recommendations signed and sealed by the LPG of Record to provide the factor of safety previously reported by ETC. The rock mass should provide a factor of safety of 1.3 for the temporary condition and 1.5 for the permanent condition unless ETC can demonstrate to the satisfaction of the Department that it cannot meet a factor of safety of 1.5 using generally accepted geotechnical engineering practices. If the LPG of Record determines that field conditions will not provide the required factors of safety, then ETC shall notify the Department in writing of the LPG of Record’s findings within 24 hours of discovery and the recommendations for slope stability measures shall be submitted to the Department within fifteen days of the field inspection.

9. ETC shall provide a stability analysis for CIS Crow’s Run Creek, Elkhorn Run Number 1, GAS Tributary of Service Creek (1312+00 to 1314+50), UNT to Service Creek (1368+80 to 1369+30) and Clinton Frankfort (1734+75 to 1735+00) to demonstrate that the permanent stabilization provides a factor of safety of 1.5 unless ETC can demonstrate to the satisfaction of the Department that it cannot meet a factor of safety of 1.5 using generally accepted geotechnical engineering practices.

10. Malfunctioning, inadequate, missing and/or poorly constructed waterbars ("WBs") are cited in the Landslide Plan as the cause of several slope failures. During the implementation of the Plans, ETC shall record the removal or repair (by location) of all existing malfunctioning, inadequate WBs. A monthly written report of the status of each existing WB shall be submitted to the Department. Each existing WB shall be identified by station number and WB number. The monthly report is due the first day of the month and shall be submitted to April Weiland.

11. By no later than April 1, 2020, ETC shall submit a plan to the Department to assess the risk of slides or unstable conditions that may affect or displace the pipeline and a plan to determine if any segment of the pipeline has been displaced by slides, instability, or earth movement. The plan shall include, but not be limited to the use of drive probes, hand augers and/or soft digging methods or other methods at sufficient locations along the pipeline route. By the same date, ETC shall confirm that at the slide near Elkhorn Run (863+00 to 888+00) that the pipeline was installed within competent dense residual soils, dense weathered rock or competent bedrock. The written report shall be submitted to April Weiland.

12. Terra Tubes: ETC shall inspect the Terra Tubes weekly and after each precipitation event using a licensed Professional Engineer licensed to practice engineering in the Commonwealth of Pennsylvania and competent in this field of expertise ("Engineer of Record") to ensure that the intended use of this product is achieved. A designee may not be used in place of the Engineer of Record.

   a. In the event that a modification is recommended by the Engineer of Record, ETC shall immediately notify the Department that a modification is recommended. ETC shall
implement the recommended modification within 24 hours of inspection. Upon completion of the recommended modification, ETC shall immediately notify the Department that the modification has been completed. Notifications shall be sent to the attention of April Weiland.

b. Inspection reports of the Terra Tube installation shall be submitted to the Department on the first day of the month. The reports should include the weekly inspections of the preceding month. The reports shall be sent to the attention of April Weiland.

c. ETC shall inspect the additional areas of the Incident Site at the locations were Terra Tubes are not proposed for installation. The inspections shall be at the same frequency as the location of the Terra Tube installation and shall be conducted by the Engineer of Record. If the Engineer of Record or the Department determines that additional temporary stabilization measures are necessary at these locations, then ETC shall submit a written proposal to the Department. Inspection reports of these areas shall be submitted to the Department on the first day of the month. The inspection reports shall be sent to the attention of April Weiland. If the Department requests additional temporary stabilization measures, ETC shall submit a written plan to the Department within 14 days of the notice from the Department. If the Engineer of Record recommends additional temporary stabilization measures, ETC shall submit a written plan to the Department within 14 days of the recommendation.

13. **Park Road Station 1614+50 to 1616+00**: ETC shall inspect the seven drain pipes installed at this location weekly and after each precipitation event. ETC shall document the inspections and that documentation shall be made available to the Department upon request. ETC shall document, at a minimum, if there is any flow from any of the drain pipes. If there is flow from any of the pipes or if there are signs of saturation or instability, then ETC shall immediately notify the Department. Notifications shall be sent to the attention of April Weiland.

14. **Monitoring and Reporting**

a. ETC shall submit weekly written reports to the Department outlining the activities that occurred in the implementation of the Plans the preceding week. The reports are due by 3:00 p.m. on Monday and shall be submitted via email the attention of April Weiland.

b. ETC shall submit daily scatter sheets to the Department documenting work that is being conducted within the ROW. The daily scatter sheets shall be submitted via email to April Weiland.

c. By 3:00 p.m. every Friday, ETC shall submit a schedule of proposed earth moving for the following week. The proposed schedule shall be submitted via email to April Weiland.

d. ETC shall employ an Engineer of Record to inspect the erosion and sedimentation controls and best management practices. The Engineer of Record shall conduct monthly inspections of work performed during each calendar month. ETC shall submit monthly
reports signed and sealed by the Engineer of Record that work has been constructed in accordance with this approval. The written reports shall be submitted to the Department by the 15th of each month.

15. In the event that ETC determines that a modification to the approved Plans is necessary, then ETC shall submit a written request to modify the Plans to the Department. The written request shall be sent to the attention of April Weiland and include an original and two copies.

16. By December 20, 2019, ETC shall schedule a meeting date and time for a preconstruction meeting with the Department. The meeting date and time shall allow for a minimum of seven business days' notice to the Department. At a minimum, ETC shall include all contractors, the LPG of Record, the Engineer of Record, and a geotechnical engineer. By no later than the day before the date of the preconstruction meeting, ETC shall submit to the Department 7 sets of the Plans with all revisions received through December 9, 2019. Three full size drawing sets shall be submitted to the Southwest District Office (attention of Kareen Milcic) and four half scale sets shall be submitted to the Ebensburg District Office (Attention of April Weiland). Additionally, by the same date, ETC shall submit a full-sized drawing sheet numbered Sheet 109A that depicts the Revolution pipeline from station 1111+00 to 1125+00.

17. ECT shall follow the construction sequence as outlined in the Plans. No modifications to the sequence can be made without prior written authorization from the Department.

18. Within 45 days of completion of all activities authorized in the Plans, ETC shall submit three full and complete sets of as built drawings to the Department. The as built drawings shall be submitted to the Southwest District Office (Attention of Kareen Milcic).

19. The Department in this Conditional Approval of the Plans is not approving the use of an Adaptive Management Plan.

20. If conditions encountered during implementation of the Plans or if supplemental analysis indicates that the either the Stabilization Plan or the Landslide Plan require modification, ETC shall submit proposed supplemental temporary stabilization measures in a Revised Stabilization Plan. If the temporary stabilization measures that are implemented in accordance with the Plans are found to be inadequate to achieve the designed result based on additional analysis, site inspections, or evaluation, ETC shall submit proposed modifications to the Plans. The proposed modifications to the Plans shall be designed to achieve a factor of safety of 1.5 for permanent condition unless ETC can demonstrate to the satisfaction of the Department that it cannot meet a factor of safety of 1.5 using generally accepted geotechnical engineering practices.
Nothing in this Conditional Approval of the Plans affects or waives the requirement that ETC permanently stabilize the Project pursuant to Chapter 102 of the Department’s regulations and other applicable laws and regulations. Any measures, features, disturbances, or construction of any type conditionally approved herein may need to be replaced or altered after the analysis of the soil and rock testing required herein, including but limited to soils, stability, geologic, and seismic testing and analyses. ETC has stated that it fully accepts the responsibility to re-engineer and re-build any features approved herein as part of the permanent stabilization of the project.

The review of the Stabilization Plan and the Landslide Plan and the comments set forth in this letter were conducted and compiled by staff under the responsible charge of Mr. Brian Bailey, P.E. and Ms. Kareen Milcic, P.E. and/or were conducted and compiled by Mr. Brian Bailey and Ms. Kareen Milcic.

This letter does not alter in any way the Department’s October 29, 2018 Field Order or the Commonwealth Court’s Order of March 26, 2019 at Docket No. 69 M.D. 2019.

If you have should have any questions regarding this matter, please contact April Weiland at 814.472.1820.

Sincerely,

Daniel F. Counahan
District Oil and Gas Manager
Southwest District Oil and Gas Operations

cc:
M. Futch
E. Tkacik
L. Gremminger
N. Taber
R. Watling
M. Seigel
B. Bailey
K. Milcic
D. Davis
M. Stephan
D. Counahan
A. Weiland
D. McDermott
S. Foulk

KAM
EXHIBIT B
April 1, 2020

Via Hand Delivery
Ms. April Weiland
Southwest District Oil and Gas Operations
Pennsylvania Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, PA 15222-4745

Re: Revolution Pipeline Project ("Project") Conditional Approval Letter Items 6 and 11

Dear Ms. Weiland:

In accordance with item 6.a.i. of the conditional approval letter for the Revolution Pipeline Project Temporary Slope Stabilization Plan, Landslide Hazard Evaluation, and Updated Erosion and Sedimentation Control Plan, dated December 13, 2019 ("the Conditional Approval Letter"), ETC Northeast Pipeline LLC ("ETC") commissioned GeoEngineers to perform an investigation to evaluate whether the Revolution Pipeline is benched into bedrock or dense, weathered rock or dense residual soil and not supported on fill or colluvium at Steep Side Slope Fill Segments (as defined in the Conditional Approval Letter) along the Revolution Pipeline route. The results of that investigation are detailed in a memorandum from Jonathan Robison, P.E. and Trevor Hoyles, P.E., dated April 1, 2020 (the "Steep Side Slope Fill Segments Evaluation").

In addition, in accordance with item 11 of the Conditional Approval Letter, ETC requested that GeoEngineers draft a plan to assess the risk of slides or unstable conditions that may affect or displace the Revolution Pipeline and a plan to determine if any segment of the pipeline has been displaced by slides, instability or earth movement ("Assessment Plan"). The Assessment Plan, which ETC intends to implement following approval by the Department, notes that these risks have already been evaluated at certain locations as part of the Temporary Stabilization Plans and Permanent Stabilization Plans previously submitted to the Department. As required by Item 11, the Assessment Plan also includes an evaluation of the subsurface conditions where the Revolution Pipeline is installed at the slides near Elkhorn Run (Station 863+00 to 888+00).

As required by the Conditional Approval Letter, ETC hereby submits to the Department copies of the Steep Side Slope Fill Segments Evaluation and the Assessment Plan. Consistent with Department instructions, three hard copies of these reports will be delivered via a courier service to the Southwest Regional Office. In addition, an electronic copy of all materials has been uploaded to the Department’s OneDrive site.

Please feel free to contact me at eric.tkacik@energytransfer.com or 570.980.8303 should you have any questions.
Sincerely,

Eric Tkacik  
Revolution Pipeline Project Manager  
Energy Transfer
INTRODUCTION

At the request of ETC Northeast Pipeline, LLC (ETC), GeoEngineers, Inc. (GeoEngineers) is providing this assessment of steep side slope fill segments along the Revolution Pipeline alignment in Pennsylvania. Specifically, this memorandum responds to Item 6a in the Pennsylvania Department of Environmental Protection (PADEP) Temporary Stabilization Plan (TSP) Conditional Approval Letter dated December 13, 2019. Item 6a reads as follows:

6. Steep Side Slope Fill Segments (“Steep Side Slope Fill Segments”) are gradients of 40 percent or steeper where the pipeline is oriented parallel to contour (side slope) or oblique to contour as identified in Section 7 of the Landslide Plan.

a. In the design of the permanent stabilization (“Permanent Stabilization”) of Steep Side Slope Fill Segments, ETC shall:

i. Demonstrate that the pipeline is benched into bedrock or dense, weathered rock or dense residual soil and that the pipeline is not supported on fill or colluvium. In order to fulfill this demonstration ETC shall review all past construction records and perform drive probes, hand augers and/or soft digging methods or other methods approved in writing by the Department at adequate and sufficient locations to verify competent bearing soils. By no later than April 1, 2020 ETC shall submit the results of this investigation to the Department.

ii. Propose a design that achieves a factor of safety of 1.5 unless ETC can demonstrate to the satisfaction of the Department that it cannot meet a factor of safety of 1.5 using generally accepted geotechnical engineering practices.

The follow sections present the steep side slope fill segment evaluation and field approach.
STEEP SIDE SLOPE FILL SEGMENTS

General

The steep side slopes along the Revolution Pipeline alignment were previously identified and discussed in GeoEngineers temporary and permanent stabilization plan reports, the most recent being the Landslide Hazard Evaluation and March 1 Deliverable Permanent Stabilization Plan (PSP) dated March 1, 2020, and the Landslide Hazard Evaluation and Permanent Stabilization Plan Addendum 1 dated March 20, 2020. GeoEngineers identified 11 steep side slope areas along the pipeline right-of-way (ROW) that are inclined at gradients of 40 percent or steeper using a Light Detection and Ranging (LiDAR) based digital elevation model (DEM) of the ground surface. Two steep side slope areas (SS-7 and SS-8) did not have to be considered and therefore were intentionally omitted from evaluation because the pipeline was installed by horizontal directional drilling (HDD) such that no earthwork was completed along those segments. Therefore, those segments are not included in this discussion. The table below summarizes the steep side slope areas where the pipeline was installed parallel (side slope) or oblique to contour. Note that the steep side slope numbering provided in the table below has been modified from the list provided in the referenced PSP report to be consistent with the TSP list and the naming scheme developed for the hand explorations. The steep side slope locations of interest to this study are shown in the attached Vicinity Map, Figure 1, which was similarly modified from the PSP and PSP Addendum 1 for the purpose of this report.

TABLE 1. SUMMARY OF STEEP SIDE SLOPE FILL SEGMENTS

<table>
<thead>
<tr>
<th>Steep Side Slope Fill Segment</th>
<th>Beginning Station</th>
<th>Ending Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS-1</td>
<td>665+77</td>
<td>670+24</td>
</tr>
<tr>
<td>SS-2</td>
<td>711+74</td>
<td>714+29</td>
</tr>
<tr>
<td>SS-3 (2)</td>
<td>864+26</td>
<td>867+28</td>
</tr>
<tr>
<td>SS-4</td>
<td>1098+81</td>
<td>1099+28</td>
</tr>
<tr>
<td>SS-5</td>
<td>1102+79</td>
<td>1103+20</td>
</tr>
<tr>
<td>SS-6 (3)</td>
<td>1111+71</td>
<td>1120+28</td>
</tr>
<tr>
<td>SS-7 (1)</td>
<td>1126+75</td>
<td>1128+24</td>
</tr>
<tr>
<td>SS-8 (1)</td>
<td>1130+50</td>
<td>1131+76</td>
</tr>
<tr>
<td>SS-9</td>
<td>1599+62</td>
<td>1607+27</td>
</tr>
<tr>
<td>SS-10 (4)</td>
<td>1734+26</td>
<td>1736+79</td>
</tr>
<tr>
<td>SS-11</td>
<td>1793+24</td>
<td>1793+73</td>
</tr>
</tbody>
</table>

Notes:
1. HDD Site is intentionally omitted.
2. Located within the vicinity of Elkhorn 1.
3. Located within the vicinity of Ivy Lane – Incident Site.
4. Located within the vicinity of Clinton Frankfort 1.

These steep side slopes fall into the following basic categories:

1. HDD sites that require no further discussion because the as-built pipeline depth is on the order of 50 feet below ground surface, or deeper, grading did not occur, and the ROW was not grubbed. Therefore, these sections are not considered for risk of sediment delivery or pipeline integrity issues related to shallow ground movement. The steep side slopes in this category are SS-7 and SS-8.
2. Steep side slopes that were discussed in detail in the PSP and PSP Addendum 1 will not be discussed further here. The slope stability analyses and results for these designs are presented in the PSP and PSP Addendum 1. The steep side slopes in this category are SS-3 (Elkhorn 1) and SS-6 (Incident Site).

3. A steep side slope that partially overlaps with an identified failure that was discussed in detail in the PSP. The steep side slope in this category is SS-10, which overlaps with Clinton Frankfort 1 slope failure. The following discussion for SS-10 will address the area outside of the Clinton Frankfort 1 slope failure area.

4. Steep side slopes that do not coincide with the slope failure sites referenced above and therefore were not discussed as part of the PSP or PSP Addendum 1. The steep side slopes in this category are SS-1, SS-2, SS-4, SS-5, SS-9, SS-10 (excepting the Clinton Frankfort 1 area), and SS-11 and are discussed in the remainder of this report.

Consistent with the above outlined categories, all subsequent analyses of side slopes in this report will apply only to currently stable side slope areas SS-1, SS-2, SS-4, SS-5, SS-9, SS-10 (excepting the Clinton Frankfort 1 area), and SS-11.

Construction and Survey Records

As previously discussed in the referenced PSP and PSP Addendum 1, GeoEngineers reviewed the ETC-provided field report photographic record to observe, where possible, indications of the bearing materials in which the pipeline was installed. The photographic record shows pipeline trench construction at intermittent locations along the side slope areas. We used this information to inform our interpretation of the construction benches on the steep side slope cross sections included at the end of this report. These field reports are attached as Revolution Pipeline Steep Side Slope Area Construction Field Reports.

ETC provided three sets of survey data, which we plotted on the attached steep Side Slope Fill Segment Plan and Profile drawings: (1) pre-construction LiDAR ground surface; (2) post-construction LiDAR ground surface; and (3) as-built pipe elevations. A comparison of these data sets indicates the pipeline was installed below the pre-construction existing ground surface in the currently stable steep side slope areas, not within fill placed to restore the pipeline ROW.

Existing Condition

The currently stable steep side slope areas have not exhibited signs of instability during or post pipeline construction. As discussed in the PSP, our review of historical photography and LiDAR imagery does not indicate evidence of historic landsliding in these areas. Additionally, the referenced steep side slopes are well-vegetated and appear stable, as shown in the attached Revolution Pipeline Steep Side Slope Fill Segment Photographs. We recommend that these sites should continue to be monitored in accordance with the PSP.

Pipeline Bearing Material

To assess the existing pipeline bearing material, GeoEngineers reviewed past construction records, pre- and post-pipeline construction survey, and performed drive probes and hand augers at approximately 100-foot spacing along the steep side slope alignments. The approximate hand exploration locations are shown in the attached Steep Side Slope Fill Segment Plan and Profile drawings. The interpreted subsurface profiles, shown in the attached Steep Side Slope Fill Segment Cross Sections drawings, present the as-built pipeline location and our interpretation of the pipeline construction fill, fill/overburden soil, competent soil, and bedrock.
The drive probe and hand-auger explorations logs are attached to this report and select drive probe logs are shown in the profile view of the Plan and Profile drawings and the Cross Section drawings. See Appendix C of the PSP report for a detailed discussion of the exploration methods and a summary of results. See Appendix D of the PSP report for a detailed discussion of the laboratory test methods and results.

During our review of the construction photographic record, survey data, and drive probe and hand auger exploration results, we did not observe evidence of pipe embedment in loose, soft, or otherwise unsuitable bearing materials from a slope stability perspective in the referenced steep side slope areas. As such, it is our opinion that there is low risk of slope movement that would affect the pipeline integrity.

**PADEP EMAIL DATED MARCH 20, 2020**

ETC, GeoEngineers and PADEP met on March 11, 2020, via conference call to discuss the steep side slope investigation. Subsequently, at the request of the PADEP, GeoEngineers provided a draft side slope plan and profile and cross section package for SS-1 on March 18, 2020. PADEP provided the following email on March 20, 2020:

> The Department has reviewed ETC's draft examples of the steep side slope evaluations provided via email on March 18, 2020. As you are aware, the Department has requested that ETC demonstrate that it can achieve a factor of safety of 1.5 and demonstrate the stability of the pipeline against movement in steep side slopes. The subject matter of steep slide slopes and ETC's ability to obtain the necessary data to meet this request was discussed during a March 11, 2020 meeting with the Department and its consultant. During that meeting, ETC's consultant provided an opinion that it cannot provide a quantitative evaluation of the stability of the pipeline in steep side slopes areas without performing additional mechanical borings and potentially additional laboratory testing.

> Additional information relating to a quantitative evaluation is needed. Please explain why ETC cannot conduct a quantitative evaluation of the factor of safety and pipeline stability against potential movement in steep side slopes.

> Please consider that ETC has conducted quantitative evaluations at the following locations: SR 151, Raccoon Creek, McKibben, the Incident Site and Clinton Frankfort 1. These quantitative evaluations were conducted using hand augers and hand probing. ETC should justify why it cannot use these methods in the evaluation of the steep side slopes.

> Other methods may be available to provide a quantitative evaluation to the Department. ETC should not limit the evaluation to hand augers and hand probing. ETC should consider other methods including but not limited to geophysics to supplement field testing.

> Additional information relating to a quantitative evaluation is needed. Please explain why ETC cannot conduct a quantitative evaluation of the factor of safety and pipeline stability against potential movement in steep side slopes.

**Summarizing and Responding to the PADEP’s March 20, 2020 Email**

To respond to PADEP's March 20, 2020 email, GeoEngineers has consolidated the email into two basic questions and formulated a response to each question as follows:

1. Why does GeoEngineers believe that a quantitative factor of safety calculation at the side slope areas with existing data is not advisable?
As discussed on the March 11, 2020 conference call, it is GeoEngineers’ opinion that drive probe and other hand exploration methods provide useful indications of soil consistency and stratigraphy, but do not provide reliable strength data for numerical modeling purposes. We would not have confidence in a limit-equilibrium stability model based solely on these data sets.

In addition, mechanical explorations would require construction of access roads and water crossings, which would disturb otherwise stable slopes and increase the risk of slope instability and delivery of sediment to the waters of the Commonwealth. Provided the steep side slopes continue to remain stable, it is our opinion that the risk of slope destabilization and potential delivery of sediment to the waters of the Commonwealth is not warranted.

2. Regarding the sites listed in the March 20, 2020 PADEP email, at which quantitative evaluations have been completed, GeoEngineers generated additional soil shear strength data at these sites for use in limit-equilibrium stability models. In particular, many of the sites listed have mechanical boring data and/or exposed bedrock, and all of the sites were affected by one or more slope failure, which allowed us to develop soil strength parameters based on back-calculation analysis. Specifically, the data available at these sites is summarized as follows: SR 151 (mechanical borings, existing slope failure); Racoon Creek Hillside (existing slope failure); McKibben (existing slope failure); Incident Site (mechanical borings, existing slope failure, bedrock exposures); Clinton Frankfurt 1 (existing slope failure, bedrock exposure). Other methods, including geophysics, should be considered to supplement the field testing.

In GeoEngineers’ opinion and experience, geophysics can be a useful tool to give an indication of soil consistency and depth to bedrock. It does not, however, provide reliable data that can be used to estimate soil and rock strengths for stability modeling purposes. Furthermore, geophysics provides limited to no value when unconstrained by ground truth (mechanical borings and/or test pits) for interpretation and verification purposes.

The other methods that would be useful to further investigate the steep side slope areas, in our opinion, include mechanical borings and test pits. Mechanical borings (and subsequent laboratory testing) would provide soil and rock shear strength data of suitable quality for use in numerical analysis, and test pits could be used to expose the pipe and physically observe its embedment. However, as noted previously, the access required to implement these methods would result in widespread disturbance of the currently stable and well vegetated slopes.

CONCLUSION

In conclusion, the existing pipeline at HDD sites (SS-7 and SS-8) is embedded in competent bearing soils and no fill has been placed along those segments. The existing stability and pipeline embedment conditions at PSP sites are discussed in the PSP (SS-3) and PSP Addendum 1 (SS-6).

For the currently stable steep side slope areas SS-1, SS-2, SS-4, SS-5, SS-9, SS-10 (excepting the Clinton Frankfort 1 area), and SS-11, and based on the construction record evidence and post-construction geotechnical drive probe and hand auger explorations, it is our opinion that there is low risk of slope movement that would affect the pipeline integrity.
LIMITATIONS

We have prepared this report for use by ETC for evaluating steep side slope conditions along the Revolution Pipeline alignment. ETC may distribute copies of this report to their authorized agents and regulatory agencies as may be required for the project.

GeoEngineers services are intended to identify sites along the Revolution Pipeline that have an elevated risk for future slope movement because the site has experienced past slope failure, historical landsliding, and/or is composed of steep fill slopes. Our conclusions are based on a desktop review of readily available data and limited reconnaissance of select areas. Although GeoEngineers has identified sites with elevated risk, all slopes, particularly those that have been disturbed by construction activities, have a risk of slope movement. Construction on slopes involves risk, only part of which can be mitigated through the use of engineering controls and Best Management Practices (BMPs). Favorable performance of slopes in the near term does not imply a certainty of long-term performance, especially under conditions of adverse weather or seismic activity. GeoEngineers’ recommendations for preliminary stabilization measures are intended to reduce but not eliminate the risk of additional slope movement and delivery of sediment to Waters of the Commonwealth.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted practices in the field of geotechnical engineering and engineering geology in this area at the time this report was prepared. The conclusions, recommendations, and opinions presented in this report are based on our professional knowledge, judgment, and experience. No warranty or other conditions, express or implied, should be understood.

Please refer to Appendix Q titled “Report Limitations and Guidelines for Use” of the PSP dated March 1, 2020, for additional information pertaining to use of this report.

Attachments:
- Figure 1. Vicinity Map
- Revolution Pipeline Steep Side Slope Area Construction Field Reports
- Revolution Pipeline Steep Side Slope Fill Segment Photographs
- Revolution Pipeline Steep Side Slope Fill Segments Plan and Profiles
- Revolution Pipeline Steep Side Slope Cross Sections
- Revolution Pipeline Steep Side Slope Drive Probe and Hand Auger Logs
<table>
<thead>
<tr>
<th>Site Name</th>
<th>Station #</th>
<th>Population (homes within 1/2 mile radius)</th>
<th>Structures within 220 yd X 1 mile perimeter area measured from the centerline of the pipe</th>
<th>Steepness of Slope (%)</th>
<th>Side Slope Configuration</th>
<th>Depth into bedrock measured from top of bedrock to bottom of pipe</th>
<th>Inside or Outside Portion of Cut Bench</th>
<th>Slope Failures at Site (y)</th>
<th>Repair Status</th>
<th>Water of the Commonwealth Downstream?</th>
<th>Waters Information</th>
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<td>453±50 to 452±50</td>
<td>15</td>
<td>No</td>
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<td>PER Stream 9-42 (AKA 13-103, 968) Trib 34825 to Brush Creek</td>
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<td>SS-1</td>
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<td>0.7</td>
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<td>SS-2</td>
<td>711±74 to 714±29</td>
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<td>60</td>
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June 3, 2019

Certified Mail Receipt No. 7018 1130 0001 4475 7056

Eric Tkacik
ETC Northeast Pipeline, LLC
6051 Wallace Run Extension
Third Floor
Wexford, PA 15090

Subject: Notice of Violation
Revolution Pipeline: Handling of Fuels or Petrochemicals in Revolution Pipeline During Stabilization

Dear Mr. Tkacik:

On March 15, 2019, in a letter to ETC Northeast Pipeline, LLC (“ETC”), the Department requested that ETC provide the Department with an updated Preparedness, Prevention and Contingency Plan for the Revolution Pipeline pursuant to 25 Pa. Code §§ 102.1, 102.5(l) (“PPC Plan”) that describes how ETC will safely remove fuels and/or petrochemicals from the Revolution Pipeline’s pipelines while the Revolution Pipeline remains under order of the Department. The Department requested the PPC Plan be submitted no later than March 30, 2019. ETC submitted the PPC Plan to the Department on May 1, 2019. The March 15, 2019 letter also requested that ETC contact me immediately if any section of the Revolution Pipeline stores or transports any fuels or petrochemicals, including but not limited to natural gas or liquid hydrocarbons, and describe how those will be safely removed from the Revolution Pipeline prior to stabilization work pursuant to the Stabilization Order. On May 7, 2019, ETC confirmed there is natural gas in the Revolution Pipeline from Station 0+00 to 680+00 (“Charged Line”).

Section 5.2.2 of the PPC Plan states that if ETC believes the integrity of the pipeline could be a risk from an existing slip or slide location, or a new slide is observed, the ETC Emergency Manager will consult with Gas Control to, inter alia, determine if the pipeline should be shut down, and the contents purged. As stated in the March 15, 2019 letter, ETC identified seven (7) distinct areas of land movement (sliding, sloughing, cracks) over top of the Charged Line. Despite the existence of that land movement and the Department’s requests, ETC has not explained in its PPC plan how natural gas will be safely removed from Charged Line prior to stabilization work pursuant to the Stabilization Order.

ETC’s failure to prepare and implement a PPC Plan that safely removes petrochemicals it is storing, using, or transporting within the Charged Line is a violation of 25 Pa. Code §§ 78a.55(a) and 102.5(l).
This Notice of Violation is neither an order nor any other final action of the Department of Environmental Protection. It neither imposes nor waives any enforcement action available to the Department under any of its statutes. If the Department determines that an enforcement action is appropriate, you will be notified of the action.

If you should have any questions concerning this matter, please feel free to contact me at 412-442-4006.

Sincerely,

[Signature]

Daniel F. Counahan  
District Oil and Gas Manager  
Southwest District Oil and Gas Operations