Appendix A-11
Quality Record Requirements – Pipeline Construction
Revision 6/01/2022

TC Energy

Contractor shall provide the ITPs, Forms, and Quality Records indicated in the tables below. Failure of Contractor to provide the required Quality Records during the associated Work will result in Company rejecting the materials and/or workmanship. Any associated replacement or rework will be at Contractor's expense. The following table summarizes project Quality Record deliverables however it is the responsibility of the Contractor to review the Company Specifications and Scope of Work to ensure all deliverables are met.

Pipeline Construction							
			Quality Records				
No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
1.	**General:** General Documentation Requirements	• All plans as detailed in the SOW / Specifications (i.e. PQP, PSSSP, etc)	• Calibration Certificates	• Inspection Test Plan Template • Request for Information (RFI) • Design Change Notice (DCN) • Non-Conformance Report (NCR) • Geotechnical Report (as required)	• Calibration Certificates	• TES-CT-ITP-GL Inspection Test Plan Specification for Construction and Fabrication (CAN-US-MEX) • Inspection Test Plan Master Index	• Contractor shall adhere to the Company-accepted Inspection Test Plan (ITP). Contractor may choose to adopt the supplied Standardized ITP Template. • Contractor shall issue RFIs to Company, as needed. • Company will provide RFI responses back to Contractor. • Company will issue DCNs and NCRs to Contractor, if/as needed. • Contractor will submit applicable equipment calibration certificates to the Company. • Contractor will generate reports on activities that are being performed. • Company will review all submittals and either accept or reject. • Contractor will progressively maintain the permanent file with all associated records unless otherwise instructed by the Company. These records will be turned over to the Company by Substantial Completion.
2.	**Operator Qualifications:** Ensure workers are qualified to perform tasks that fall under project's Op-Qual program	• N/A	• Field Verification Report (Contractor personnel)	• Field Verification Report (Company personnel) • OQ Task List	• Field Verification Report (Contractor personnel)	• TC Operator Qualification Program	• Company will provide Contractor with OQ Covered Task List • Contractor shall provide a List of Employees and Roles to Company Inspection weekly and each time a new employee comes to site. • Contractor shall verify operator qualifications for all Contractor personnel in Veriforce and provide a Field Verification Report to Company Inspection weekly. • Company Inspection will verify operator qualifications for all Company personnel in

Pipeline Construction							
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No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
							Veriforce and maintain a Field Verification Report weekly. • Contractor to verify and document span of control when utilized. • Company Inspection will maintain the permanent file with all associated records.
3.	**Material Receiving, Stockpiling & Storage:** Inventory management and document collection for all Contractor-supplied and Company-supplied materials	• Material Receiving ITP • Material Management Plan • Material Receiving, Stockpiling & Storage Inspection & Test Procedure	• Materials Receiving Report	• TEF-CT-ITPP-G Material Receiving, Stockpiling, and Storage ITP - Pipeline (US-MEX)	• Third Party Inspection (3PI) Reports • Material Testing Reports (MTRs) • Certificates of Compliance (COC) • Packing slips • Pipe Tally Reports	• TES-CT-GEN-G Pipeline Construction Specification (US-MEX) • TES-CT-THSSP-GL Transportation, Handling and Stockpiling of Steel Pipe and Pipe Assemblies Specification (CAN-US-MEX)	• Contractor shall maintain the Material Receiving Report until Substantial Completion is achieved. • Contractor shall collect all documentation as part of the material receipt process and maintain a file in an organized and accessible manner until Mechanical Completion is achieved. • Company Inspection will review the Material Receiving Report and documentation file at least once daily. • Contractor will turn over to Company Inspection the Material Receiving Report and documentation file at Substantial Completion.
4.	**Redline Drawings:** Capture as-built conditions using redlined drawings	• N/A	• Redline As-built drawings / Surveys	• N/A	• Redline As-built drawings / Surveys	• TES-DR-REDLN-GLE Engineering Drawing Redline Specification	• Contractor shall maintain a master set of redlined drawings for all Contractor fabrication and site construction Work until Substantial Completion is achieved. • As-built survey will be performed per the Scope of Work (Contractor or Company) • Company will provide Contractor with redlined drawings for Company-furnished fabrications and equipment, where applicable. Contractor shall incorporate into the master redline set. • Company Inspection will review the master set of drawing redlines at least once daily at all Contractor Work locations. • Contractor will turn over to Company Inspection the master set of drawing redlines at Substantial Completion.

Pipeline Construction							
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No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
5.	**Survey:** Documentation required for site survey	• N/A	• N/A	• N/A	• Survey Report	• TES-CI-FSURV-GLE Facilities Survey Specification	• Contactor will perform survey activities per the SOW • Contractor shall complete Survey Reports, drawings, field notes, and closure calculations for all survey Work. • Contractor shall have the final Survey Reports and drawings stamped by the licensed surveyor who performed or supervised the work. • Contractor shall incorporate all surveyed locations into the master set of drawing redlines. • Company Inspection will review the survey records at least once daily during survey Work. • Contractor will turn over to Company Inspection the final survey records within ten (10) days of completing the survey Work. • Company Inspection will maintain the permanent file with all associated records.
6.	**Right of Way (ROW) Preparation:** Documentation required for ROW & access road construction	• ROW Preparation ITP • ROW Preparation Inspection and Test Procedure	• ROW Preparation Daily Inspection Report / Checklist • One Call Report (as required)	• TEF-CI-ITPP-G ROW Preparation ITP - Pipeline (US-MEX)	• N/A	• TES-CT-GEN-G Pipeline Construction Specification (US-MEX) • TES-CT-SLOPE-GL Slope Work Specification (CAN-US-MEX) • TES-CT-TAS-GL Temporary Access Roads Specification (CAN-US-MEX)	• Contractor will complete daily reports / checklists for ROW Preparation for each location being worked to support activities on the ITP. • Contractor will perform and record utility sweeps including the development of a stakeout report and obtain One Call Reports for all areas requiring ground disturbance. One Call Reports will be kept current.
7.	**Loading & Stringing:** Documentation required for loading performed by the contractor from pipe yards and stringing on the ROW.	• Loading and Stringing ITP • Loading and Stringing Inspection and Test Procedure	• Loading and Stringing Daily Inspection Report / Checklist • Pipe Tallies	• TEF-CT-ITPP-G Loading & Stringing ITP (US-MEX)	• N/A	• TES-CT-GEN-G Pipeline Construction Specification (US-MEX) • TES-CT-THSSP-GL Transportation, Handling and Stockpiling of Steel Pipe and Pipe Assemblies	• Contractor will complete daily reports / checklists for Loading & Stringing Preparation for each location being worked to support activities on the ITP. • Contractor will complete daily pipe tallies and submit to the company for review.

Pipeline Construction							
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No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
						Specification (CAN-US-MEX)	
8.	**Field Bending:** Documentation required for field bending	• Field Bending ITP • Field Bending Inspection and Test Procedure	• Field Bending Daily Inspection Report / Checklist	• TEF-CT-ITPP-G Field Bending ITP (US-MEX) • TET-BEND-TRACK Bend Tracking Template (CDN-US-MEX)	• N/A	• TES-CT-GEN-G Pipeline Construction Specification (US-MEX)	• Contractor will report required bend information in TET-BEND-TRACK Bend Tracking Template (CDN-US-MEX) for each bend. • Contractor will complete daily reports / checklists for ROW Preparation for each location being worked to support activities on the ITP.
9.	**Trenching:** Documentation required for trenching	• Trenching ITP • Trenching Inspection and Test Procedure	• Trenching Daily Inspection Report / Checklist • One Call Report	• TEF-CT-ITPP-G Trenching ITP (US-MEX)	• N/A	• TES-CT-GEN-G Pipeline Construction Specification (US-MEX) • TES-CT-EXC-GLE Excavation Specification (CAN-US-MEX)	• Contractor will complete daily reports / checklists for Trenching for each location being worked. • Contractor will perform and record utility sweeps including the development of a stakeout report and obtain One Call Reports for all areas requiring ground disturbance. One Call Reports will be kept current.
10.	**Rock Blasting:** Documentation required for blasting	• Blasting ITP • Test Blasting Plan • Blasting Plan • Blasting design (engineer stamped) • Applicable permits • Pre-blast survey • Geotechnical engineering assessment (if required) • Blasting Inspection and Test Procedure	• Blasting Daily Inspection Report / Checklist	• TEF-CT-ITPP-GLE Blasting (CAN-US-MEX)	• N/A	• TES-CT-BLAST-GL Pipeline and Construction Blasting Specification (CAN-US-MEX)	• Contractor will submit all required pre-activity deliverables prior to the start of the activity to the Company. • Contractor will complete daily reports / checklists for Blasting for each location being worked.
11.	**Welding:** Documentation required for welder qualification	• N/A	• N/A	• TEF-WELD-QUA-US Welders Qualification Form	• N/A	• TES-WL-APIWL-GL Welding of Pipelines and Facilities Specification (US-MEX)	• Company Inspection will conduct welder testing and complete the associated Welders Qualification Form.

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No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
							• Company Inspection will compile a list of Contractor's qualified welders.
	Welding: Documentation required for both manual and mechanized weld procedures	• Welding Procedures (if submitting) Repair Welding Procedure • Mechanized proposed Weld Procedure (pWPS) – if applicable • Repair Welding Procedure	• Qualified Weld Procedure Specifications	• N/A	• N/A	• TES-WL-APIWL-GL Welding of Pipelines and Facilities Specification (US-MEX) • TEP-WL-QMECH-GL Qualification of • Mechanized Welding Procedure Specifications (CAN-US-MEX)	• Contractor shall submit alternative Welding Procedures / mechanized pWPS and PQRs to Company for acceptance at least two (2) weeks prior to starting welding.
	Welding: Documentation required for welding	• Welding ITP • Welding Inspection & Test Procedure • Consumable Management Plan • Welding Plan (as required)	• Visual Weld Inspection Report / log	• TEF-ME-PRESW GL Non-Pressure Tested Tie-in Weld Waiver Approval Request Form • TEF-WELD-TIE-IN Tie-in Weld In-Process Examination Form • TEF-WELD-BACKBEVEL Back Bevel Transition Weld Parameter Form	• N/A	• TES-WL-APIWL-GL Welding of Pipelines and Facilities Specification (US-MEX)	• Company Inspection will witness production welding and complete Inspection Daily Report. • Contractor will complete a Welding Inspection Report / Checklist daily to support requirements in the ITP. This report will include all welds from that day. • Contractor will keep an up to date weld log of all welding performed unless otherwise instructed by the Company. • Company will complete the Non-Pressure Tested Tie-in Weld Waiver Approval Request Form, where applicable, prior to starting the associated pressure test. • Company Inspection will witness all tie-in welds and complete the In-Process Examination Form and Back Bevel Transition Weld Parameter Form, where applicable. • The Contractor will submit a process for performing Quality Control for Welding activities. This procedure will include Visual Inspection requirements.

Pipeline Construction							
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No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
12.	**Non-Destructive Examination (NDE):** Documentation requirements for the qualification of NDE personnel and performing NDE	• NDE Procedures (if not already approved)	• NDE Log (can be included on the weld log)	• TFF-RT-QUAL Radiographic Examination Procedure Qualification Form	• Level II or Level III radiographic testing certification • Level II or Level III certification for other testing methods used • Visual Acuity Report • Radiographic Test Reports • Magnetic Particle Inspection Reports • UT Inspection Reports • Liquid Penetrate Inspection Reports	• TES-RT-API Radiographic Examination of Welds Specification • TES-UT-API Ultrasonic Examination of Girth Welds Specification (US-MEX) • TES-NE-MT-GLE Magnetic Particle Inspection (CAN-US-MEX) • TEP-NE-VT-GLE Visual Examination (CAN-US-MEX)	• NDE technicians will provide Company Inspection with all certifications and test radiographs. • Company Inspection will complete the Radiographic Examination Procedure Qualification Forms. • Company NDE technicians will complete all NDE Reports and Film and submit to Company Inspection. • Company will review all NDE Reports and Film as they are completed and either accept or reject.
13.	**Coating:** Documentation for transitions, and below ground coating	• Below Ground Coating ITP • Contractor Above / Below Ground Painting & Coating Inspection & Test Procedure(s)	• N/A	• TEF-CO-EPU-GL Coating Inspection Form for Below Ground Liquid Coatings • TEF-CO-PETX-GL Coating Inspection Form for Transitioning Coating Systems • TEF-CO-ITPP-GL Below Ground Coating ITP (CAN-US-MEX)	• Manufacturer Training Record for each applicator • Dry Film Thickness Testing Equipment Calibration Certifications • Micrometer Gauge Calibration	• TES-CO-EPU-GL Field-Applied External Liquid Coating Systems for Steel Pipe Specification (CAN-US-MEX)	• Contractor shall submit Manufacturer Training Record for each coating applicator and the Contractor-furnished NACE Level 1 CIP inspector to Company Inspection prior to coating. • Contractor shall submit calibration certifications for all dry film thickness testing equipment to Company Inspection prior to use. • Contractor's NACE Level 1 CIP inspector shall complete all applicable Inspection Forms transition and below grade coating application. • The Contractor will submit a Coating / Painting Inspection and Test Procedure(s) detailing how the activities will be inspected & tested.
14.	**Buoyancy Control:** Documentation requirements for the installation of buoyancy control including weight,	• Lowering-in Procedure for dry or wet ditch (concrete weights & CCC only). • Screw Anchor Installation procedure	• Daily Buoyancy Control Installation Report / Checklist	• TEF-CT-ITPP-GL Buoyancy Control ITP (CAN-US-MEX)	• N/A	• TEN-ME-BUOY-GL Buoyancy Control Design and Construction Standard (CAN-US-MEX) • STDS-02-ML-02-249 Concrete Swamp Weight Standard NPS 6 to NPS 48	• Contractor will supply applicable installation procedures prior to the start of the activity • Contractor will complete a Buoyancy Inspection Report / Checklist daily to support requirements in the ITP. This report will include location of inspection.

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No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
	anchor and concrete coating.	• Geotextile Weight Installation Quality Procedure				• STDS-02-ML-02-251 River Weight Standard NPS 4 to 48 • STDS-02-ML-02-250 Continuous • Concrete Coating Standard • STDS-02-ML-02-252 Typical Cyntech Screw Anchor Detail for NPS 10 to 48	
15.	**Lowering-in:** Documentation requirements for the lowering of pipe into the ditch	• Lowering-in ITP • Lowering-in inspection & Test Procedure(s)	• Daily Lowering-in Report / Checklist	• TEF-CT-ITPP-G Lowering-In ITP (US-MEX)	• N/A	• TES-CT-GEN-G Pipeline Construction Specification (US-MEX)	• Contractor will complete a Lowering-in Inspection Report / Checklist daily to support requirements in the ITP. This report will include location of inspection. • The Contractor will submit a Lowering-in Inspection and Test Procedure detailing how the activity will be inspected & tested.
16.	**Backfill:** Documentation requirements for backfill of the ditch	• Backfill ITP • Backfill inspection & Test Procedure(s)	• Daily Backfill Report / Checklist	• TEF-CT-ITPP-G Backfill ITP – Pipelines (US-MEX)	• N/A	• TES-CT-GEN-G Pipeline Construction Specification (US-MEX) • TES-CT-PTB-GL Pipeline Trench Breaker Specification (CAN-US-MEX) • TES-CT-COMPC-GL Compaction Control Measures for Pipeline Excavations Specification (CAN-US-MEX)	• Contractor will complete a Buoyancy Inspection Report / Checklist daily to support requirements in the ITP. • The Contractor will submit a Backfill Inspection and Test Procedure detailing how the activity will be inspected & tested.
17.	**Crossings:** Documentation requirements for	• Crossings ITP • Boring Procedure • Crossing Plan • Traffic Control Plans	• Crossing Report / Checklist • One Call Report	• TEF-CT-ITPP-G Crossings ITP (US-MEX)	• N/A	• TES-CT-GEN-G Pipeline Construction Specification (US-MEX)	• Contractor will complete a Crossing Inspection Report / Checklist daily to support requirements in the ITP.

Pipeline Construction							
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No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
	Crossings (open cut, slip bore, etc).	• Mud type additives					• The Contractor will submit a Crossing Inspection and Test Procedure detailing how the activity will be inspected & tested. • Contractor will perform and record utility sweeps including the development of a stakeout report and obtain One Call Reports for all areas requiring ground disturbance. One Call Reports will be kept current.
18.	**DPI Installation (PTMB):** Documentation requirements for DPI Bore Installation	• DPI Installation (PTMB) ITP • DPI inspection & Test Procedure (may be included in Execution Plan) • Pipe Thruster Anchoring Plan • PTMB Execution Plan • PTMB Operating Procedures • DPI Installation Report / Checklist	• Slurry and Lubrication Fluid Report • Cutting/ Fluid Disposal Report • As-built Plan and profile • DPI Installation Report / Checklist	• TEF-CT-ITPP-GL DPI Installation (Pipe Thruster Microtunnel Boring – PTMB) ITP (CAN-US-MEX)	• N/A	• TEN-ME-PTBM-GL Pipe Thruster Microtunnel Boring Design and Construction Standard (CAN-US-MEX)	• Contractor will submit all required pre-activity deliverables prior to the activity starting. • Contractor will complete a DPI Installation Report / Checklist to support the requirements stated on the ITP • Contractor will complete a Slurry and Lubrication Fluid Report every 4 hours and submit to the Company • Contractor will complete a Cutting/ Fluid Disposal Report daily • Contractor will complete a As-built Plan and profile of the DPI Installation
19.	**HDD Installation:** Documentation requirements for HDD Bore Installation	• HDD Installation ITP • HDD Execution Plan • Engineered Drilling Fluid Plan • Environmental Monitoring Plan & Management Plan • Lifting and Pullback Plan • Pulling Swivel Assembly / Pulling Head certification / Inspection reports	• Drill Fluid Report • Drilling Fluid Disposal Report • Drilling Fluid Migration Report • Daily Pilot Drill Survey • Drill Profile Records • HDD Installation Report / Checklist	• TEF-CT-ITPP-GL HDD Installation (CAN-US-MEX)	• N/A	• TEN-ME-HDD-GL HDD Design and Construction Standard (CAN-US-MEX)	• Contractor will submit all required pre-activity deliverables prior to the activity starting. The deliverables listed may be included in the HDD Execution Plan. • Contractor will complete a drilling fluid report each shift per the Specification. • Contractor will submit a drilling fluid disposal report daily. • Contractor will complete a HDD Installation Report / Checklist to support the requirements stated on the ITP • Contractor will complete drilling fluid migration forms as required.

Pipeline Construction							
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No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
		• Drill Rig Anchoring Plan • Drilling Equipment Specifications • Site -Specific Disposal Plan • Site-Specific Contingency Plan • Casing installation and removal plan • Piping Inspection Plan • Contractor Supplied Permits (as required) • Buoyancy control plan					• Contractor will complete daily pilot drill surveys and submit to the company. • Contractor will compile a complete drill profile record
20.	**Cathodic Protection:** Documentation required for Cathodic Protection Installation	• Cathodic Protection ITP • Cathodic Protection Inspection & Test Procedure	• N/A	• TET-CP-ITP-GL Cathodic Protection Installation - ITP Workbook Template (CAN-US-MEX) • Cathodic Protection Forms (CP1. CP2, CP3, C4)	• N/A	• TEN-CP-BUILD-GL Corrosion Prevention Construction Standard (CAN-US-MEX) • TEN-CP-DELVR-GL Corrosion Prevention Execution and Deliverables Standard (CAN-US-MEX)	• Contractor will complete (as applicable) C1, C2, C3, and C4 Cathodic Inspection Forms. • The Contractor will submit a Cathodic Protection Installation Inspection and Test Procedure detailing how the activity will be inspected & tested.
21.	**Pressure Testing:** Documentation for Pre-Testing	• Pressure Testing ITP • Pressure Testing Inspection & Test Procedure	• Documentation per Section 20 of TES-ME-PRES-GL Pressure Testing Specification	• TEF-CT-ITPP-GL Pressure Testing ITP - (US-MEX) • TEF-ME-PRES-GL Pressure Test Form	• N/A	• TES-ME-PRES-GL Pressure Testing Specification	• Contractor shall submit the Pressure Test Form, Test Plan and Pre-Test Documentation Package to Company for acceptance at least ten (10) days prior to start of test. Company acceptance is required prior to starting the test. • Company will provide minimum and maximum test pressure. • Contractor will turn over to Company Inspection the Pre-Test Documentation Package after Company has accepted.

Pipeline Construction							
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No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
22.	**Pressure Testing:** Documentation for Pressure Testing and Post-Testing	• Pressure Testing ITP • Pressure Testing Inspection & Test Procedure (may be included in plan)	• TEF-CT-ITPP-GL Pressure Testing ITP (US-MEX) • Per Section 20 of TES-ME-PRES-GL Pressure Testing Specification	• TEF-CT-ITPP-GL Pressure Testing ITP - (US-MEX) • TEF-ME-PRES-GL Pressure Test Form	• N/A	• TES-ME-PRES-GL Pressure Testing Specification	• Contractor shall submit the Pressure Test Form and Post-Test Documentation Package (per Section 20 of TES-ME-PRES-GL Pressure Testing Specification). to Company for acceptance after testing is complete, but before dewatering the test assemblies. Company acceptance is required before dewatering. • Contractor will turn over to Company Inspection the Pressure Test Form and Post-Test Documentation Package after Company has accepted.
23.	**Pipe Drying:** Documentation required for Pipe Drying	• Dewatering and Drying plan	• Dew Point Testing Report	• Test Assembly Sketch including Dewpoints	• Dew Point Tester Calibration Certifications	• TES-ME-PRES-GL Pressure Testing Specification	• Contractor shall submit calibration certifications for all dew point testing equipment to Company Inspection prior to testing. • Contractor shall complete Dew Point Testing Report. • Contractor shall incorporate / record all dewpoint measurements into the Test Assembly Sketch completed as part of the Pre-Test Documentation Package.
24.	**Internal Cleaning and Pigging:** Documentation required for internal cleaning and pigging.	• Caliper Pigging Plan	• Caliper Pig Report	• N/A	• N/A	• TES-CT-GEN-G Pipeline Construction Specification (US-MEX) • TEP-ME-PRES-GL Pressure Testing Procedure (US-MEX) • TES-ILI-DEF Specification for Deformation In-Line Inspection Technologies (CAN-US-MEX)	• Contractor will submit a Caliper Pigging Plan a minimum of 7 days prior to the pigging run per the requirements stated in the Specification. • The Contractor will submit a field report of the caliper pig run to the Company within twelve (12) hours of the run or within the timeline outlined in the Agreement. • The Contractor will provide a final caliper pig run report to the Company within four (4) weeks of pig operations.
25.	**Site Cleanup & Restoration:** Documentation required for Site	• Site Cleanup & Restoration ITP	• Site Cleanup & Restoration Report / Checklist	• TEF-CT-ITPP-G Site Cleanup and Restoration ITP - Pipeline (US-MEX)	• N/A	• TES-CT-GEN-G Pipeline Construction Specification (US-MEX)	• Contractor will complete a Site Cleanup & Restoration Inspection Report / Checklist daily to support requirements in the ITP.

Pipeline Construction							
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No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
	Cleanup and Restoration	• Site Cleanup & Restoration Inspection & Test Procedure					• The Contractor will submit a Site Cleanup & Restoration Inspection and Test Procedure detailing how the activity will be inspected & tested.
26.	**In-Service Welding:** Required documentation for In-Service Welding	• In Service Welding ITP	• N/A	• TEF-CT-ITPF-GL In-Service Welding ITP (US-MEX) • In-service welding / tapping assessment • In-service Welder Qualifications • In-service Welding Checklist • TEF-WELD-CRT Cooling Rate Test Form	• Hot Tap Coupon Testing Report	• TES-WL-APIIS-GL Welding on In-service Pipelines Specification	• Company Inspection to complete Welding Checklist & Cooling Rate Test Form. • Company to provide In-service welding / tapping assessment • Company Inspection will maintain the permanent file with all associated records.
27.	**Hot Tapping:** Required documentation for Hot Tapping	• N/A	• N/A	• Pipeline Inspection Report • Ultrasonic Testing Report • In-Service Stopple, Sleeve, Branch Inspection Report • Pipeline Hot Tap Stub Installation Form • Pipeline Hot Tap Measurement Report • TEF-MECH-TRANS-US Transition Inspection Report Form	• Hot Tap Coupon Testing Report	• TES-ME-STR-GL Design and Fabrication of Butt-Welded Transition Joints Specification • TEP-WELD-HTC Procedure for Hot Tap Coupon Testing • Pipeline Hot Tap Procedure • Branch Connection Epoxy Grout Injection Procedure	• Contractor shall survey distance between the centerline of the hot tap to centerline of nearest named road and include this measurement on drawing redlines. • Company will complete Pipe Inspection Report. • Company NDE technicians will complete Ultrasonic Testing Report and submit to Company Inspection. • Company Inspection will complete In-Service Stopple, Sleeve, Branch Inspection Report. • Company Inspection will complete Hot Tap Stub Installation Form. • Company will complete Hot Tap Measurement Report. • Company Inspection will complete Transition Inspection Report for transition joints, where applicable. • Company's testing lab will provide Hot Tap Coupon Testing Report. • Company Inspection will maintain the permanent file with all associated records.

Valve Station Construction (to be used in conjunction with applicable activates listed above)							
			Quality Records				
No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
1.	**Structural Concrete Installation:** Documentation for Structural Concrete including pre/post inspection.	• Reinforcement Shop/Placement Drawings • concrete mix design with proof test results for specified performance criteria • batch plant certification • material certifications for cement and aggregate (coarse and fine) • methods for delivery and installation • procedures for cold and hot weather installation and curing • Manufacturer data for admixtures, form release and sealants • personnel certifications as required Structural Concrete Inspection & Test Procedure	• Pre-Concrete Placement Report / Checklist (base, rebar / embedment / form inspection) • Concrete Installation Report / Checklist • Post Concrete Installation Report / Checklist (Curing, finishing, etc) • Redlined drawings showing mix locations	• TEF-CI-ITPF-GLE Structural Concrete Installation ITP (US-MEX)	• Testing Equipment Calibration Certifications • Slump Testing Report • Wet Density Testing Report • Air Content Testing Report • Cylinder Break Testing Report • Redlined drawings showing concrete test locations • Redlined drawings showing mix design locations	• TES-CI-CONC-GLE Cast-in-Place Concrete Specification (US-MEX	• Contractor will submit any Engineered records to the company as required by the scope of work • Contractor will submit equipment maintenance, inspection and certification records to the company • The contractor will produce a Pile Installation Procedure and submit to the company. • Contractor will submit a Tremie Concrete Placement Procedure (if required – can be included in the pile installation procedure). • Contractor will submit all applicable documentation for the rebar, formwork and concrete per section 12 of this document. • The Contractor will complete Drilled Pile Installation Records for each pile • Contractor will retain all Concrete test reports for each pour. • The Contractor will submit a Structural Concrete Installation Inspection and Test Procedure detailing how the activity will be inspected & tested.
2.	**Piling – Driven Steel:** Documentation for Driven Steel Pile Installation	• Driven Steel Pile ITP • Equipment being used (manufacturer and model) • Hammer weight, drop height, rated driving energy	• Pile Driving Analyzer (PDA) report (as required) • Material Test Reports (if contractor purchased)	• TEF-CI-ITPF-GLE Driven Steel Piling Installation ITP (CAN-US-MEX) • TEF-DV31-6216 Pile Driving Non-Vibratory Record	• NDE Reports (Spliced Piles) as required	TES-CI-SPILE-GLE Driven Steel Piles Specification (CAN-US-MEX)	• Contractor shall submit calibration certifications for all pile driving equipment to Company Inspection prior to installation. • Contractor shall complete a Pile Installation Reports for each pile installation. • Contractor will supply all required documentation for structural welding if splicing per Section 15

Valve Station Construction (to be used in conjunction with applicable activates listed above)							
			Quality Records				
No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
		• Reinforcement details for pile head damage (as required) • AWS D1.1 Welder Qualification (Splices) • AWS D1.1. Weld Procedure (Splices) Driven Steel Pile Inspection & Test Procedure					• The Contractor will submit a Driven Steel Pile Inspection and Test Procedure detailing how the activity will be inspected & tested.
3.	**Piling – Helical (Screw):** Documentation for Helical Pile Installation	• Helical Pile Installation ITP Helical Inspection & Test Procedure(s)	• N/A	• TEF-CI-ITPF-GLE Helical (Screw) Piling Installation	• Torque measurement calibration certificate • Helical Pile Installation Report / checklist • Material Test Reports (if contractor purchased) • design and drawings for helical piles	• N/A	• Contractor shall submit calibration certifications for all pile driving equipment to Company Inspection prior to installation. • Contractor will submit MTRs for piles to the Company if purchased • Contractor will submit design drawings and calculations to the company if in scope. • The Piling Contractor will complete Pile Installation Reports / checklists for each pile installed. • The Contractor will submit a Helical Pile Inspection and Test Procedure detailing how the activity will be inspected & tested.
4.	**Piling – Drilled Pier (Concrete):** Documentation for Drilled Pier (Concrete) Pile Installation	• Drilled Pier (Concrete Pile) Installation ITP • Engineering systems, which may include P.Eng. stamped drawings • Equipment maintenance records, which may include nondestructive testing reports	• N/A	• TEF-CI-ITPF-GLE Drilled Pier Installation (US) • Drilled Pile Installation Record	• Concrete Test Reports	• TES-CI-CPILE-GLE Drilled Piers Specification (US) • TES-CI-CONC-GLE Cast-In-Place Concrete (US-MEX)	• Contractor will submit any Engineered records to the company as required by the scope of work • Contractor will submit equipment maintenance, inspection and certification records to the company • The contractor will produce a Pile Installation Procedure and submit to the company. • Contractor will submit a Tremie Concrete Placement Procedure (if required – can be included in the pile installation procedure). • Contractor will submit all applicable documentation for the rebar, formwork and concrete per section 12 of this document.

Valve Station Construction (to be used in conjunction with applicable activates listed above)							
			Quality Records				
No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
		• Inspection records and/or certifications by government agencies • Pile Installation Procedure • Tremie concrete placement method procedure (if required) • Concrete submittal requirements per Section 12. Drilled Pier Inspection & Test Procedure					• The Contractor will complete Drilled Pile Installation Records for each pile • Contractor will retain all Concrete test reports for each pour. • The Contractor will submit a Drilled Pier Inspection and Test Procedure detailing how the activity will be inspected & tested.
5.	**Structural Steel and Miscellaneous Metal Installation:** Documentation for the Installation of Structural Steel and Miscellaneous metals including welding.	• Structural Weld Procedure • Repair Procedure(s) • AWS D1 Welder Certifications • Shop Drawing Designs (per Section 2.3 of Specification) • Erection Diagrams (per Section 2.3 of Specification) • NDE methods /Procedures • Cold Galvanizing Compound data sheets (as required) Structural Steel and Miscellaneous Metal	• Structural Steel Installation Report / Checklist • Mill Test Reports (as required)	• TEF-CI-ITPF-GLE Structural Steel Install ITP - (US-MEX) • Visual Weld Inspection Report (performed by the Company)	• NDE Report (as applicable)	• TES-CI-STEEL-GLE Structural Steel and Miscellaneous Metals Specification (US-MEX)	• Contractor shall submit Welding Procedures and Welder Certifications to Company for acceptance at least two (2) weeks prior to starting welding. • Contractor shall submit accepted Welding Procedures and Welder Certifications to Company Inspection. • Contractor shall complete a daily Structural Steel Inspection Report that supports the activities in the ITP. • Company Inspection will complete the Visual Inspection Report. • The Contractor will submit a Structural Steel Inspection and Test Procedure detailing how the activity will be inspected & tested.

Valve Station Construction (to be used in conjunction with applicable activates listed above)							
			Quality Records				
No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
		Installation Inspection & Test Procedure					
6.	**Piping, Valve and Inline Component Installation:** Documentation required for the installation of Piping, valves, and inline components including the tightening of mechanical connections, tubing, threaded piping and installation of shoes	• Piping, Valve and Inline Component Installation ITP Piping, Valve and Inline Component Installation Inspection & Test Procedure (including Tubing / Threaded Piping Installation and Mechanical Connections)	• Bolt Torque Map (Connections 12" or larger) • Tubing Installation Report / Checklist • Threaded Piping Installation Report / Checklist	• TEF-CT-ITPF-GL Piping, Valve and Inline Component Installation ITP (CAN-US-MEX) • TEF-ME-FBTQC-GL Flange Bolt Tightening Quality Control Form	• Bolt Torque Equipment Calibration Certifications	• TES-ME-FBT-GL Flange Bolt Tightening Specification • TES-ME-FIT-GL Tubing, Tube Fittings, and Threaded Pipe Fittings (CAN-US-MEX) • TES-CT-MCR-GL Mechanical Construction Requirements (CAN-US-MEX)	• Contractor shall adhere to the Company-accepted Inspection Test Plan (ITP). Contractor may choose to adopt the supplied Standardized ITP Template. • Contractor shall submit calibration certifications for all bolt torque equipment to Company Inspection prior to use. • Contractor shall complete Flange Bolt Tightening Quality Control Form for each flanged connection. • Contractor shall indicate completed flange torquing on drawing redlines. • Contractor will complete a tubing Inspection Report / Checklist daily to support requirements in the ITP. • Contractor will complete a threaded pipe inspection report / checklist daily to support the requirements in the ITP. • Contractor will complete the Company Inspection the Flange Bolt Tightening Quality Control Forms as they are completed. • Contractor will maintain the Bolt Torque Map as required. • The Contractor will submit Inspection and Test Procedures for each activity detailing how the activity will be inspected & tested.
7.	**Painting:** Documentation for above ground painting	• Above Ground Painting ITP Contractor Above Ground Painting Inspection & Test Procedure(s)	• N/A	• TEF-CO-ITPF-GL Above Ground Coating ITP (CAN-US-MEX) • TEF-CO-PAINT-GL Coating Inspection Form for Above Ground Painting	• Manufacturer Training Record for each applicator • Dry Film Thickness Testing Equipment Calibration Certifications • Micrometer Gauge Calibration	• TES-CO-EPU-GL Field-Applied External Liquid Coating Systems for Steel Pipe Specification (CAN-US-MEX) • TES-CO-PAINT-GL Paint Systems for Above Ground Facilities	• Contractor shall submit Manufacturer Training Record for each coating applicator and the Contractor-furnished NACE Level 1 CIP inspector to Company Inspection prior to coating. • Contractor shall submit calibration certifications for all dry film thickness testing equipment to Company Inspection prior to use.

Valve Station Construction (to be used in conjunction with applicable activates listed above)							
			Quality Records				
No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
						(Coastal and Non-Coastal) (CAN-US-MEX)	• Contractor's NACE Level 1 CIP inspector shall complete all applicable Inspection Forms for above, transition and below grade coating application. • The Contractor will submit a Painting Inspection and Test Procedure(s) detailing how the activities will be inspected & tested.
8.	**Electrical Installation:** Documentation for Electrical Installation including cable, equipment, conduit and tray	• Electrical Installation ITP • Contractor Electrical Installation Inspection & Test Procedure Cable pull calculations / plan	• Megger Test Report • VLF Report • Electrical Installation Report •	• TEF-EL-ITPF-GLE Electrical Installation ITP (US)	• Testing Equipment Calibration Certifications	• TES-CT-FCSTD-G Facilities Construction Specification	• Contractor shall submit calibration certifications for all Megger testing equipment to Company Inspection prior to use. • Contractor shall complete Megger Test Report for each conductor before and after the cable pull. • Contractor shall indicate completed megger testing on drawing redlines. • VLF Testing to be conducted when required • Contractor will complete Daily Electrical Installation Report(s) daily to support requirements in the ITP. • The Contractor will submit a Electrical Installation Inspection and Test Procedure(s) detailing how the activity will be inspected & tested.
9.	**Grounding**: Required documentation for Ground installation, testing and inspection	• Grounding ITP • Grounding Inspection & Test Procedure • personnel qualification for Exothermic Welders (if applicable) insulating gravel physical properties / resistivity test(s)	• Grounding Installation Report	• TEF-EL-ITPF-GLE Grounding ITP - (CAN-US-MEX) • Ground Installation and Test Report	• Ground Testing Equipment Calibration Certifications •	• TES-CT-FCSTD-G Facilities Construction Specification • TEP-ELEC-GRM FOP Ground Resistance Measurement Procedure	• Contractor shall submit calibration certifications for all ground testing equipment to Company Inspection prior to use. • Contractor shall complete Ground Test Report. • Contractor shall indicate completed ground testing on drawing redlines. • Contractor will complete a Grounding Inspection report daily to support requirements in the ITP. • The Contractor will submit a Grounding Installation Inspection and Test Procedure(s) detailing how the activity will be inspected & tested
10.	**Instrumentation & Communication Installation:** Required documentation for the	• Instrumentation & Communication Installation ITP • Cable pull calculations	• Conduit Installation Report / Checklist • Duct Bank Installation Report / Checklist	• TEF-CT-ITPF-GLE Instrumentation and Communication	• Torque equipment calibration • Fiber optic test equipment	• TES-AE-EQPT Instrumentation and Controls Equipment	• Contractor shall complete applicable Installation reports / checklists to support activities in ITP and submit to Company

Valve Station Construction (to be used in conjunction with applicable activates listed above)							
			Quality Records				
No.	Activity / Description	Pre-Activity Deliverable	Contractor Supplied	Company Supplied	3rd Party Supplied	Governing Specification	Responsibilities
	installation of Instrumentation and Communication scope		• Cable Tray Installation Report / Checklist • Cable Installation Report (including cable pull stress) • Fiber Optic Installation & Testing Report (OTDR and Attenuation) • Continuity Test Report • Ethernet Cable Permanent Link Test	Installation (CAN-US-MEX)		Specification (CDN-US-MEX) • TEN-IC-ICSN-G Industrial Control System Network (US)	• Contractor shall complete Fiber Optic Testing and submit to Company • Contractor shall complete Continuity Reports and submit to Company • Contractor will submit applicable equipment calibration certificates to the Company • The Contractor will submit applicable Inspection and Test Procedure(s) detailing how the activities will be inspected & tested