EVALUATION REPORT OF GAS PIPELINE & COMPRESSOR STATION CONSTRUCTION

A completed **Standard Inspection Report** is to be submitted to the Director within 60 days from completion of the inspection. A **Post Inspection Memorandum (PIM)** is to be completed and submitted to the Director within 30 days from the completion of the inspection, or series of inspections, and is to be filed as part of the **Standard Inspection Report.**

Inspection Report		Post Inspection Memorandum	
Inspector/Submit Date:		**Inspector/Submit Date:**	
		Peer Review/Date:	
		Director Approval/Date:	

POST INSPECTION MEMORANDUM (PIM)

Name of Operator:	Vermont Gas Systems Inc.	**OPID #:**	21190
Name of Unit(s):	ARNG Phase 1	**Unit #(s):**	ARNG Phase 1
Records Location:	85 Swift Street, South Burlington, Vermont 05403	**Activity #**	
Unit Type & Commodity:	Natural Gas Pipeline		
Inspection Type:	Pipeline and Regulator Station Construction	**Inspection Date(s):**	4/18/16, 4/19/16, 4/20/16, 4/21/16, 4/27/16, 4/28/16, 5/20/16, 5/24/16, 5/25/16, 6/3/16, 6/7/16, 6/8/16, 6/9/16, 6/10/16, 6/13/16, 6/14/16, 6/15/16, 6/16/16, 6/17/16, 6/20/16, 6/21/16, 6/22/16, 6/23/16, 6/24/16, 6/27/16, 6/28/16, 6/29/16, 6/30/16, 7/1/16, 7/2/16, 7/5/16, 7/6/16, 7/7/16, 7/8/16, 7/9/16, 7/11/16, 7/12/16, 7/13/16, 7/14/16, 7/15/16, 7/18/16, 7/19/16, 7/20/16, 7/21/16, 7/22/16, 7/25/16, 7/26/16, 7/27/16, 7/28/16, 7/29/16, 8/1/16, 8/2/16, 8/3/16, 8/4/16, 9/1/16, 9/3/16, 9/8/16, 9/9/16, 9/20/16, 9/24/16, 9/27/16, 9/28/16, 9/29/16, 10/5/16, 10/6/16, 10/7/16, 10/11/16, 10/14/16, 10/18/16, 10/19/16 , 10/20/16, 10/21/16,
PHMSA Representative(s):	John H. McCauley Jr	**AFO Days:**	

Summary:
SEE ATTACHMENT A

Findings:

EVALUATION REPORT OF GAS PIPELINE & COMPRESSOR STATION CONSTRUCTION

Findings:
SEE ATTACHMENT A

Name of Operator:	Vermont Gas Systems Inc.		
OP ID No. [1]	21190	**Unit ID No.** [1]	
H.Q. Address:		**System/Unit Name & Address:** [1]	
85 Swift Street, South Burlington, Vermont 05403		ARNGP	
Co. Official:	Don Rendall	**Activity Record ID#:**	ARNGP Phase 1
Phone No.:	1-802-863-4511	**Phone No.:**	
Fax No.:		**Fax No.:**	
Emergency Phone No.:	1-800-639-8081	**Emergency Phone No.:**	

Persons Interviewed	Titles	Phone No.
	SEE ATTACHMENT B	

PHMSA Representative(s) [1]	JOHN MCCAULEY JR	**Inspection Date(s)** [1]	4/18/16, 4/19/16, 4/20/16, 4/21/16, 4/27/16, 4/28/16, 5/20/16, 5/24/16, 5/25/16, 6/3/16, 6/7/16, 6/8/16, 6/9/16, 6/10/16, 6/13/16, 6/14/16, 6/15/16, 6/16/16, 6/17/16, 6/20/16,

[1] Information not required if included on page 1.

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			6/21/16, 6/22/16, 6/23/16, 6/24/16, 6/27/16, 6/28/16, 6/29/16, 6/30/16, 7/1/16, 7/2/16, 7/5/16, 7/6/16, 7/7/16, 7/8/16, 7/9/16, 7/11/16, 7/12/16, 7/13/16, 7/14/16, 7/15/16, 7/18/16, 7/19/16, 7/20/16, 7/21/16, 7/22/16, 7/25/16, 7/26/16, 7/27/16, 7/28/16, 7/29/16, 8/1/16, 8/2/16, 8/3/16, 8/4/16, 9/1/16, 9/3/16, 9/8/16, 9/9/16, 9/20/16, 9/24/16, 9/27/16, 9/28/16, 9/29/16, 10/5/16, 10/6/16, 10/7/16, 10/11/16, 10/14/16, 10/18/16, 10/19/16 , 10/20/16, 10/21/16, 6/15/16, 6/16/16, 6/17/16, 6/20/16, 6/21/16, 6/22/16, 6/23/16, 6/24/16, 6/27/16, 6/28/16, 6/29/16, 6/30/16, 7/1/16, 7/2/16, 7/5/16, 7/6/16, 7/7/16, 7/8/16, 7/9/16, 7/11/16, 7/12/16, 7/13/16, 7/14/16, 7/15/16,7/18/16, 7/19/16,7/20/16, 7/21/16
Company Construction Maps (copies for Region Files):			
Description of Construction (1)			

Description of Construction (1)

Approximately 41.2 miles of 12.750", .312 WT, X-65 transmission pipeline, extending from a new tie-in to be located at Vermont Gas' existing 10-inch mainline north of Severance Road in Colchester ("Colchester Tie-In"), Vermont, to just north of the intersection of U.S. Route 7 and Exchange Street in Middlebury, Vermont.

Three new pressure regulation stations gate stations, one located near Route 2 in Williston to reinforce the existing distribution system, one off Plank Road in New Haven, and the third north of the intersection of U.S. Route 7 and Exchange Street in Middlebury.

The pipeline will have an MAOP of 1440 psig.
2016 construction consists of completion of transmission pipe between Williston Regulator Station and Middlebury Regulator Station (approximately 31 miles) . Five mainline valves were installed in this phase of construction.

PIPE SPECIFICATIONS			
.51	.55	Steel Pipe	
		▪ Manufacturer:	PARAGON
		▪ Manufacturing Standard:	API 5L
		▪ Pipe Grade:	X65
		▪ Outside Diameter (D):	12.750
		▪ Wall Thickness (t):	.312
		▪ Type of Longitudinal Seam:	ERW
		▪ Specified Min. Yield Strength:	65000
		▪ Joint Design - Bevel:	30
		▪ External Coating:	FBE, PRITEC, ARO
		▪ Internal Coating:	None
		▪ Minimum Joint Length:	60
		▪ Footage or Miles:	54,900 FT

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			DESIGN REQUIREMENTS	S	U	N/A	N/C
.51			**MATERIAL SPECIFICATIONS**				
		.55	Does the steel pipe meet one of the **API** or **ASTM** listed specifications?	X			
		.63(a)	Are pipe, valves, and fittings properly marked for identification?	X			
		.63(c)	Were pipe, valves, and fittings marked with other than field die stamping?	X			
.101			**PIPE DESIGN**				
		.105(a)	Was the pipeline designed in accordance with this formula: **P = (2St/D) x F x E x T**	X			
		.112	If the pipeline is designed to the alternative MAOP standard in 192.620 (80% SMYS) Refer to Attachment 1 for additional design requirements.				
		.113	Is the **longitudinal joint factor (E)** for steel pipe equal to **1**? (See table)	X			
		.115	Is the **temperature derating factor (T)** for steel pipe equal to **1**? (See table)	X			
.141			**DESIGN of PIPELINE COMPONENTS**				
		.143(b)	The design and installation of pipeline components and facilities must meet applicable requirements for corrosion control found in subpart I of this part.	X[1]			
		.145	Does each valve meet minimum requirements of **API 6D** or a national or international standard that provides an equivalent performance level?	X			
		.147	Does each flange or flange accessory meet the minimum requirements of **ASME/ANSI 16.5, MSS SP44, or ASME/ANSI B16.25**, or equivalent?	X			
		.149	Are steel butt welded fittings rated at or above the pressure and temperature as the pipe?	X			
		.159	Is the pipeline designed with enough flexibility to prevent thermal expansion or contraction from causing excessive stresses in the pipe or component?	X			
		.161(d)	For a pipeline to operate at 50% of SMYS, are structural supports not welded directly to the pipe, but to a member that completely encircles the pipe?	X			
		.161(e)	Is each underground pipeline that is connected to a relatively unyielding line or fixed object provided with enough flexibility to allow for possible movement, or is it anchored?			X	
		.179	Are transmission line valves spaced properly Each point in a Class 1 location within 10 miles of a valve Each point in a Class 2 location within 7 ½ miles of a valve Each point in a Class 3 location within 4 miles of a valve Each point in a Class 4 location with 2 ½ miles of a valve	X[2]			
		.199	Are pressure relief and pressure limiting devices designed and installed correctly?			X[3]	
		.201	Do pressure relief and pressure limiting devices have adequate capacity?			X	
.163			**DESIGN of COMPRESSOR STATION**				
		.163(a)	Is each compressor building located on property under the control of the operator?			X	
			Is the distance to adjacent property far enough to prevent the spread of fire?			X	
			Is there enough space around compressor buildings to allow free movement of firefighting equipment?			X	
		.168(b)	Are buildings constructed with non-combustible material?			X	
		.163(c)	Are there two separate and unobstructed exits on each operating floor of each compressor building?			X	
			Do doors swing outward?			X	
		.163(d)	Does each fence around a compressor station have at least two gates?			X	
			Does each gate located within 200 feet of a building open outwardly and when occupied must be operated from the inside without a key?			X	
		.163(e)	Is electrical equipment and wiring installed per ANSI/NFPA 70?			X	
		.165(a)	Are compressors protected from liquids?			X	
		.165(b)	Do liquid separators have a manual drain and if slugs of liquid could be carried into the compressor, automatic liquid removal, compressor shutdown, or high liquid level alarm?			X	
			Are liquid separators manufactured in accordance with Section VIII of the ASME Boiler and Pressure Vessel Code or a design factor less than or equal to 0.4 if constructed of pipe and fittings with no internal welding?			X	
		.167(a)	Does the compressor station have an emergency shutdown system?			X	
			Is the ESD able to isolate station and blowdown station piping?			X	

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			DESIGN REQUIREMENTS	S	U	N/A	N/C
			Is discharge of gas from the blowdown piping at a location where the gas will not create a hazard?			X	
			Will ESD shutdown compressor, gas fired equipment and electrical facilities (except emergency lighting and circuits needed to protect equipment)?			X	
			Are there at least two ESD stations outside gas area near exits gates or emergency exists?			X	
		.169(a)	Does compressor station have overpressure protection devices of sufficient capacity to prevent pressure greater than 110% MAOP?			X	
		.169(b)	Do relief valves vent in safe location?			X	
		.171(c)	Are there slots or holes in baffles of gas engine mufflers?			X	
		.173	Are buildings ventilated to prevent the accumulation of gas?			X	
		.735(b)	Are aboveground oil or gasoline storage tanks protected per NFPA No. 30? (Dikes)			X	
		.736(a)	Does the compressor building have a fixed gas detection and alarm system?			X	

Comments:
NO COMPRESSOR STATION IN SCOPE OF PROJECT.

.13(c)		WELDING AND WELD DEFECT REPAIR/REMOVAL REQUIREMENTS	S	U	N/A	N/C
	.225	(a) Are welding procedures qualified under **Section 5 of API 1104** or **Section IX of ASME Boiler and Pressure Code** by destructive test.	X			
		(b) Are welding procedures recorded in detail, including results of the qualifying tests?	X			
	Note: Alternate welding procedures criteria are addressed in API 1104 Appendix A, section A.3.				X	
	.227	(a) Are welders qualified according to **Section 6, API Std. 1104** or **Section IX, ASME Boiler and Pressure Vessel Code**? (Welders qualified under an earlier edition may weld but may not requalify under earlier edition)	X			
		(b) Welders may be qualified under **section I of Appendix C** to weld on lines that operate at **< 20% SMYS.**			X	
	.229	(a) Are all welders on compressor station piping and components qualified by means other than nondestructive testing?			X	
		(b) Has the welder welded with this same process and has a weld been tested and found acceptable according to **Section 6 or 9, API Std. 1104** at least twice each calendar year not to exceed 7 ½ months? (Welders qualified under an earlier edition may weld but may not requalify under earlier edition).	X			
		(c) For "low stress" welder requalification requirements, references 192.229(d).				
	.231	Is the welding operation protected from the weather conditions that could impair the quality of the completed weld?	X			
	.233	Miter joints (**consider pipe alignment**)			X	
	.235	Are welding surfaces clean, free of foreign material, and aligned in accordance with the qualified welding procedure?	X			
		Repair and Removal of Weld Defects				
	.245	(a) Are cracks longer than 8% of the weld length removed?			X[4]	
		For each weld that is repaired, is the defect removed down to clean metal and is the pipe preheated if conditions demand it?	X			
		(b) Are the repairs inspected to insure acceptability?	X			
		If additional repairs are required, are they done in accordance with qualified written welding procedures to assure minimum mechanical properties are met?			X	
		(c) Repair of a crack or any other defect in a previously repaired area must be in accordance with a written weld repair procedure, qualified under **§192.225**			X	

Comments:

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Comments:
6/15/16 Observed repair of weld ML0185, repair was rejected and cut out. 6/20/16 Observed front end and firing line welding Rt 2A.

.13(c)	WELD INSPECTIONS and NONDESTRUCTIVE TESTING REQUIREMENTS	S	U	N/A	N/C
.241	Are inspectors performing visual inspection to check for adherence to the welding procedure and the acceptability of welds as per Section 9, API Std. 1104, except for Subsection 9.7 for depth of undercutting adjacent to the root bead? Note: If the alternative acceptance criteria in API 1104 Appendix A are used, has the operator performed an Engineering Critical Assessment (ECA)?	X			
.243	(a) Is a detailed written **NDT** procedure established and qualified?	X			
	(b) Are there records to qualify procedures?	X			
	(c) Is the radiographer trained and qualified? (Level II or better)	X			
	(d) Are the following percentages of each days field butt welds nondestructively tested:				
	(1) **10%** in **Class 1** locations.			X	
	(2) **15%** in **Class 2** locations			X	
	(3) **100%** in **Class 3** and **4** locations, river crossings, within railroad or public highway ROWs, tunnels, bridges, overhead road crossings: however, if impracticable may test not less than **90%**.	X			
	(4) **100% at pipeline tie-ins.**	X			
	(e) Is a sample of each welder's work for each day nondestructively tested? (see code for exceptions)	X			
	(f) Do the radiograph records and daily reports show:				
	▪ Number of welds made.	X			
	▪ Number of welds tested.	X			
	▪ Number of welds rejected.	X			
	▪ Disposition of rejected welds.	X			
	▪ Is there a correlation of welds and radiographs to a bench mark? (Engineering station or survey marker)	X[5]			

Comments:
6/8/16 Welding inspection at Rt2A and Williston Road. 6/9/16 Welding inspection @ Sta. 1034+00, Met with M. Reagan and D. Crandall regarding touch and step potentials. 6/10/16 Welding inspection at 1032+00. 6/15/16 Met with Chief Welding Inspector Doug Love to view some film of hollow bead. 6/23/16 Welding inspection GAS of Williston Road. 7/6/16 Welding inspection at Sta. 800+00. 7/7/16 welding inspection at Sta. 963+00. 7/13/16 welding inspection at Sta. 1110+00. 7/19/16 Front end welding @ Sta. 1230+00. Met with Chief Welding Inspector Doug Love and reviewed some film. 7/29/16 Welding inspection at 782+00 tie in. 8/2/16 at Sta. 1628+00 front end welding inspection. 8/3/16 Tie in welds at 862+48 and 863+37. 8/3/16 Preperation of segmentable fittings for PI at Sta. 1040+00. 8/4/16 Tie in welding at 922+00. 9/9/16 tie in and mainline welding at 1687+00. 9/9/16 at 1663+50 clay plains welding and 2102+00 firing line welding. 9/24/16 reviewed radiographs of repairs with Doug Love.

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.301		CONSTRUCTION REQUIREMENTS	S	U	N/A	N/C
	.303	Are comprehensive written construction specifications available and adhered to?		X[6]		
	.305	Are inspections performed to check adherence to the construction specifications?	X			
	.307	Is material being visually inspected at the site of installation to insure against damage that could impair its serviceability?	X			
	.309(a)	Are any defects or damage that impairs the serviceability of a length of steel pipe such as a gouge, dent, groove, or arc burn repaired or removed?	X			
	.309(c)	If repairs are made by grinding, is the remaining wall thickness in conformance with the tolerances in the pipe manufacturing specifications or the nominal wall thickness required for the design pressure of the pipe?	X			
	.313(b)	If a circumferential weld is permanently deformed during bending, is the weld nondestructively tested?			X	
	.319(a)	When pipe is placed in the ditch, is it installed so as to fit the ditch, minimize stresses, and protect the pipe coating from damage?		X		
	.319(b)	Does backfill provide firm support under the pipe and is the ditch backfilled in a manner that prevents damage to the pipe and coating from equipment or the backfill material?	X			
	.461(c)	External protective coating is inspected (by jeeping, etc.) prior to lowering the pipe into the ditch. Coating damage repaired, as required.	X			
	.325(a)	Is there **12 inches** clearance between the pipeline and any other underground structure? If **12 inches** cannot be attained, are adequate provisions made to protect the pipeline from damage that could result from the proximity of the other structure?	X			
	.327(a)	▪ Is pipe in a **Class 1** location installed with **30 inches** of cover in **normal soil**, or **24 inches** of cover in **consolidated rock**?	X			
		▪ Is pipe in **Class 2, 3,** and **4** locations, drainage ditches of public roads and railroad crossings, installed with **36 inches** of cover in **normal soil** or **24 inches** of cover in consolidated rock?	X			
		▪ Does pipe installed in a river or harbor have **48 inches** of cover in **soil** or **24 inches** of cover in **consolidated rock**?	X			
		▪ If the above cover cannot be attained, is additional protection provided to withstand anticipated external loads?			X	
	.328	If the pipeline will be operated at the alternative MAOP standard calculated under 192.620 (80% SMYS) Refer to Attachment 1 for additional construction requirements				

Comments:

04/28/2016 In field observing ROW clearing and HDD sites from Williston to Middlebury. 05/20/16, In Williston Pipe Yard observed contractor moving and restacking pipe, saw numerous blue ribbon marked pipe within pile (blue ribbon indicates segregated). 5/24/16 Inspection at New Haven Pipe Yard. 5/27/16 Inspection at New Haven Pipe Yard observed inspectors document heat numbers and physically inspecting pipe. Numerous coating with ineffective patches segregated. 6/3/16 PCM and line locating with ARK Engineering. 6/7/16 Pipe stringing and welding Hurricane lane. 6/8/16 Close Interval Survey Colchester launcher to Mill Pond Road. 6/14/16 observed bending and stringing operations off of Rt 2A. Observed stringing prior to trench excavation outside of VGS specification 312333 36(b) . 6/15/16 Observed disbanding factory applied patch, had Chief Coating Inspector Ryan Schaefer conduct peel test- FAILED. Observed application of Canusa shrink sleeve. 6/16/16 observed mill defect on pipe, refered to CWI D. Love. At kick off Williston station observed pipe being laid directly on trench bottom in non compliance with VGS Specification 312333 3.5(B) . Referred to M. Reagan and D. Crandall. 6/17/16 met with VELCO employee regarding induced current on pipe. 6/23/16 met with GC Morris regarding AC mitigation. 6?24/16 Stringing at 941+00 numerous non compliance issues regarding induced current. 7/1/1. Berms not approved, refered to Chris LaForce.6 at Sta. 680+00 sandbags and berms being used for pipe supports. 7/2/16 Sta.691+29 lowering in of 1770 ft section. 7/7/16 Observed lowering In operation between 686+50 and 776+00 pipe supported throughout by sandbags and padding. 7/8/16 Observed backfilling at Williston Sbstation. Once again noted pipe directly on bottom of ditch. Notified D. Crandall who advised that pipe was lowered in before directive from CHA engineering. 7/9/16 at Hurricane Lane tie in observed trench box resting on pipe, notified inspector Tom Modeen. Also put in request for information regarding field bend at tie in, was advised 11 degree overbend. Inspection of HDD at Route 7 Middlebury and Town Hill road. 7/13/16 Notified Michels, Hatch Mott and VGS of unbonded pipe segment at 930+00, 19.38 volts. 7/14/16 At HDD Town Hill Road pullback completed. 7/15/16 witness lowering in at Sta. 858+00. Witness backfilling at Sta. 848+00. At Sta.

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Comments:
1149+00 observed bond wire off pipe string, 35.90 volts. Notified foreman and crew as well as company notifications. 7/20/16 Observed lowering in at Williston station. 7/22/16 Inspection of HDD at 'Dragon Bore" in Middlebury.7/25/16 Lowering in at 842+00. 7/26/16 Observed lowering in at 777+80. Met with Chief Inspector Darrel Crandall regarding pipe mill anomalies and rejection criteria. Inspected NDT technician 1179+00 and rebeveling of pipe with internal mill defect. 7/28/16 observed durometer readings on Wrapid wrap coatings at 2164+25. 7/29/16 Lowering in at 800+00. 8/1/16 HDD inspection at Đragon Bore". 8/2/16 Inspection of anomaly crew at 1741+00. 8/3/16 observed installation of trench breakers at 814+83. 8/3/16 Inspection at Lewis Creek bore. 8/4/16 HDD at Lewis Creek 18" back reamer. 8/8/16 Monkton Swamp Bore. 8/9/16 Monkton Swamp pullback, coating damages observed. 8/10/16 pulled more pipe through at Monkton Swamp observed final 16' no through coating damage. 8/11/16 observed pullback at Lewis Creek bore, pipe in very good condition. 8/11/16 Lowering in at 1537+50. 8/12/16 excavating and padding on Old Stage Road. 8/15/16 observed installation of Trench Breakers, also reported to inspector need sand bags under overbend at 1549+00. 8/23/16 1115+00 Baldwin Road crossing. 8/23/16 at Station 2087+00 with ndt crew on mill defects. 8/24/16 Baldwin road tie in. 8/24/16 lowering in at 1680+00. 8/26-27/16 tie in at 753+90. 9/3/16 tie in at 1635+50. 9/6/16 Lowering in at 1412+00. 9/6/16 dewatering and padding at 2093+00. 9/8/16 reaming at 1390 +00 (peyser). 9/8/16 Tie in crew excavating at 1987+00. 9/20/16 enduro caliper pig run. 9/24/16 drying operation in process, receive pigs at 967+50. 9/24/16 tie in at 1669+50. 9/27/16 drying at 967+50. 9/28-29/16 field audit of fittings and valves. 10/5/16 tie in at mlv2. 10/6/16 Williston Station tie in. 10/7/16 gas up to MLV 2 and then to terminus before Geprags. 10/12/16 lowering in at 379+00. 10/19/16 Audit MTRs for mainline valves. 10/19/16 NewHaven reg station dewatering. 10/20/16 conduct audit of Michels op qual identity of employees.

.451	CORROSION REQUIREMENTS		S	U	N/A	N/C
	.455(a)	(1) Does the pipeline have an effective external coating and does it meet the coating specifications?	X			
		(2) Is a cathodic protection system installed or being provided for?	X			
	.471(a)	Are test leads mechanically secure and electrically conductive?	X			
	.471(b)	Are test leads attached to the pipe by cadwelding or other process so as to minimize stress concentration on the pipe?	X			
	.471(c)	Are bare test leads and the connections to the pipe coated?	X			
	.476	Systems designed to reduce internal corrosion (a) New construction	X			
		(b) Exceptions – offshore pipeline and systems replaced before 5/23/07			X	
		(c) Evaluate changes to existing systems			X	

Comments:
4/27/16 Review VGS and ARK engineering reports on CP for Phase 1. 6/13/16 Coating application inspection R-95 coating @ Hurricane Lane. 6/21/16 DCVG survey with ARK engineering. 6/29/16 Mill coated repair anomalies observed Sta. 642+50. Lowering in at Sta. 645+00 sandbags and select backfill. 6/30/16 observed a butyl tape repair on top of a mill applied shrinck sleeve. Referred to R. Schaefer. Also indicated that application temperature over 115F are prohibited as per Denso specifications. 7/6/16 At Sta. 875+00 observed 13 coating damages in 11 ft, appears to be from bending machine. 7/7/16 met with bending engineer at 1101+50, was advised that shoes had been adjusted and lubricant of water and soap was being applied during bending. Also try to make close radius bends in morning before heat. 7/11/16 met with M. Reagan and D. Crandall regarding peel and adhesion tests. Sta.2067+00 observed coating application of Protol 7200. 7/12/16 observed numerous jeeps on protol coating near Sta. 863+50. Notified coating inspector. Sta. 706+00 witnessed installation of zinc ribbon, CAD welding and field splice for AC mitigation. 7/27/16 coating inspection at 1268+00 canusa sleeve application. 8/3/16 observed installation of zinc ribbon at 815+00. 8/4/16 Zinc ribbon installation 892+00. 8/4/16 Coatings inspection 1523+00. 8/20/16 coating inspections at Sta. 1116+00, replacing previous coatings due to peel test failure. 8/20/16 dewatering at 1183+00. 8?25/16 inspection of coating at Quarry Road crossing. 8/26/16 had Chief inspector meet me at Baldwin road. Installation of four wire test station not in compliance with specification. Chief ordered repair. 10/6/16 zinc ribbon installation at 2080+10. 10/11/16 inspection of test station and ac mitigation MLV2.

.501	TESTING REQUIREMENTS		S	U	N/A	N/C
	.503(a)	(1) Is a hydrostatic pressure test planned to substantiate the MAOP?	X			
		(2) If the pipeline has been hydrostatically tested, have all potentially hazardous leaks been located and eliminated?	X			
	.505(a)	▪ Is there a specified hydrostatic pressure testing procedure?	X			

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.501	TESTING REQUIREMENTS		S	U	N/A	N/C
	• Is the **specified test pressure equal to: 1.1 x MAOP for Class 1 locations, 1.25 x MAOP for Class 2 locations, and 1.5 x MAOP for Class 3 and 4 locations**? Refer to Attachment 1 for additional testing requirements for Alternate MAOP.		X			
	NOTE:	Verify ASME Vessels (ASME Code standard is a 1.3 test factor) are designed for 1.5 test factor, or isolate them when testing to 1.5 x MAOP.				
	.505(c)	For pipelines which operate at **30% of more of SMYS**, is the minimum test duration for the pipeline at least **8 hours**? (Strength Test)	X			
	.505(e)	Is the minimum test duration for pretested fabricated units and **short sections of pipe** at least **4 hours**?	X			
	.515(a)	Does the operator take every reasonable precaution to protect the general public and all personnel during the test?	X			
	.515(b)	Does the operator insure that the test medium is disposed of in a manner that will minimize damage to the environment?	X			
	.517 (a)	Do the test records include the following:				
		(1) Operator's name, name of operator's employee responsible for making the test, and the name of the test company used.	X			
		(2) Test medium used.	X			
		(3) Test pressure.	X			
		(4) Test duration.	X			
		(5) Pressure recording charts, or other record of pressure readings.	X			
		(6) Elevation variations, whenever significant for the particular test.	X			
		(7) Leaks and failures noted and their disposition.			X	

Comments: 6/16/16 Witnessed pre HDD pressure test at Monkton Road, 1560' @ 2160 psig-2210 psig, hydro. Deadweight Refinery Supply Mod 35525-1 S/N 4879 calibrated 4/5/16, Nortrax Digital Instrument #1493 calibrated 4/6/16, Barton Pressure Chart #11275418000 calibrated 4/5/16. Inspected preparation of pipe for hydro test at ta. 1180+00. 10/13/16 mainline pressure testing at middlebury station. 10/14/16 verify test pressures and elevation calculations .Deadweight Pipeline Supply ser.# 4701 calibrated 8/31/16, Cameron Pressure Chart Box #112188967003 7/21/16, Cameron Temp Pipe #112741683001 Ambient #112741683002, Dewatering at Middlebury Station.

.801 - .809	OPERATOR QUALIFICATION FIELD VERIFICATION	S	U	N/A	N/C
	Operator Qualification - Use PHMSA Form 15 Operator Qualification Field Inspection Protocol Form if applicable to the project.		X		
.620	If performance of a construction task associated with implementing the alternative MAOP standard in 192.620 can affect the integrity of the pipeline, the operator treats those tasks as "covered tasks" and implements the requirements of subpart N as appropriate.			X	

Comments: 6/7/16 Met with Mike Reagan regarding qualification records of inspection staff. 6/15/16 Op qual inspection Jill Normand. Audit of Hatch Mott inspector qualifications. 7/11/16 Op qual inspection of coating hands Dupuis and Price. *Op Qual inspection of Robert Dowland and Jake Sleeper jeeping of pipe. Neither employee op qual ed for jeeping and not being directed by qualified individual.7/18/16 Op Qual inspection of coating hand Jessica Henderson. 7/21/16 Op Qual coating hands Charles Hemphling and Jose Barron. 8/19/16-8/20/16 OpQual inspections of equipment operators Chris Anderson, Craig Anderson, Jon Hill, Doug Hendry, William Furman, Mark Langlois,.

Attachment 1

Additional Requirements for Steel Pipe Using Alternative MAOP

For additional guidance refer to http://primis.phmsa.dot.gov/maop/faqs.htm
For FAQs refer to http://primis.phmsa.dot.gov/maop/faqs.htm

	Additional Design Requirements for Pipe Using Alternative MAOP	S	U	N/A	N/C
.112(a)	General Standards				
	(1) Plate microalloyed, fine grain, fully killed, continuously cast				X
	(2) Carbon equivalents not greater than 0.25% by weight Pcm or 0.43% IWW				X
	(3) Diameter to wall thickness ratio less than 100 and measures to prevent denting and ovality				X
	(4) Pipe manufactured to API 5L level 2				X
.112(b)	Fracture Control				
	(1) Pipe toughness properties for fracture propagation per API 5L or ASME B31.8 and correction factors				X
	(2) (i) Resistance to fracture initiation through full range of operating variables and pipeline life				X
	(ii) Toughness adjusted for each pipe grade and decompressive behavior of gas				X
	(iii) Ensure 99% probability of fracture arrest within 8 pipe lengths; 90% within 5 and,				X
	(iv) Fracture toughness testing equivalent to API 5L supplementary requirements				X
	(3) Crack arrestors or heavier wall pipe used if toughness properties not achieved				X
.112(c)	Plate/Coil Quality Control				
	(1) Quality program at mills to eliminate defects and inclusions				X
	(2) (i) Mill inspection program includes ultrasonic test at ends and at least 35% of plate/coil or pipe to identify defects. Also, 95% of the pipe is tested and done in accordance with ASTM A578 or API 5L				X
	(ii) Macro etch test or equivalent to identify inclusions or,				X
	(iii) Operator audits of steelmaking facilities quality control plans and manufacturing specs, equipment maintenance records, casting superheat and speeds, and centerline segregation monitoring				X
.112(d)	Seam Quality Control				
	(1) Quality assurance program for seam welds to assure tensile strength per API 5L				X
	(2) Vickers Hardness test to a minimum of 280 Vickers for a seam cross section of one pipe from each heat plus one pipe from each welding line per day and a minimum of 13 readings for each cross section sample				X
	(3) Ultrasonic test of all pipe seams after cold expansion and mill hydrostatic testing				X
.112(e)	Mill Hydrostatic Test				
	(1) Hydrostatic test at the mill to 95% hoop stress for 10 seconds per API 5L, Appendix K				X
	(2) Pipe in operation prior to 11/17/08 must have mill hydrostatic test to 90% SMYS for 10 seconds				X
.112(f)	Coating				
	(1) Pipe coating must be non-shielding				X
	(2) Pipe coating used for trenchless installation must also be abrasion resistant				X
	(3) Coating quality inspection and testing must cover pipe surface quality, surface cleanliness, blast cleaning, application temperature control, adhesion, cathodic disbondment, moisture penetration, bending, thickness, holiday detection and repair.				X
.112(h)	Compressor Stations				
	(1) Designed to limit the temperature of the nearest downstream segment to 120°F or,			X	
	(2) Research , testing and monitoring to demonstrate coating will withstand higher temperatures if needed			X	
	(3) If operating above 120°F , implement a long-term coating integrity monitoring program			X	

Comments:

EVALUATION REPORT OF GAS PIPELINE & COMPRESSOR STATION CONSTRUCTION

192.328	Additional Construction Requirements for Pipe Using Alternative MAOP	S	U	N/A	N/
	(a) Quality Assurance				
	(1) Quality assurance plan addressing pipe inspections, hauling and stringing, bending, welding, NDT, coating, lowering, backfill, and hydrostatic testing	X			
	(2) Quality plan for girth weld coating equivalent to plan required in §192.113(f)(3) and performed by individuals with knowledge, skills and abilities in coating application	X			
	(b) All girth welds have non-destructive testing in accordance with §192.243(b) and (c)	X			
	(c) At least 36 inches of cover or top of pipe 1 foot below deepest tilling penetration	X			
	(d) No initial hydrotest failures indicative of systemic material defects – root cause analysis of any failures	X			
	(e) Impacts of induced alternating current on corrosion control addressed	X			

Comments:

192.620	Pressure Testing & Notification Requirements for Pipe Using Alternative MAOP	S	U	N/A	N
	(a)(2)(ii) The alternative test factor for Class 1 is 1.25, and Class 2 and 3 is 1.5.			X	
	(c) If an operator elects to use the alternative maximum allowable operating pressure calculated under paragraph (a) of this section for a pipeline segment, the operator must do each of the following:			X	
	(1) Notify each PHMSA pipeline safety regional office where the pipeline is in service of its election with respect to a segment at least 180 days before operating at the alternative maximum allowable operating pressure. An operator must also notify a State pipeline safety authority when the pipeline is located in a State where PHMSA has an interstate agent agreement, or an intrastate pipeline is regulated by that State.			X	
	(3) Send a copy of the certification required by paragraph (c)(2) of this section to each PHMSA pipeline safety regional office where the pipeline is in service 30 days prior to operating at the alternative MAOP.			X	

Comments:

[1] Field inspections were conducted on installation of AC mitigation and rectifiers and test stations. The Vermont DPS has retained a third party SME to evaluate the design criteria.
[2] Valve spacing audit conducted in 2015
[3] Transmission Pressure regulation is controlled at 10" VGS pipeline.
[4] All cracks are cut out.
[5] Surveyors captured welds before backfill.
[6] See attachment Construction issues

ATTACHMENT A

PIPELINE CONSTRUCTION ISSUES

	A	B	C	D	E	F
1	CATEGORY	DISCOVERY DATE	ISSUE	CODE REQUIREMENT	VIOLATION	STATUS
2	COATING	6/15/2016	While conducting a mainline construction inspection, I observed an apparent factory applied heat shrink sleeve disbonding from the pipe. I notified Chief Coating Inspector Ryan Schaeffer of the condition, and he joined me on site. I requested that a peel test be conducted on the adjacent shrink sleeve. The peel test failed. The shrink sleeves were subsequently removed, substrate prepared, and replaced with field applied Denso Butyl 35 tape.		N	REPAIRED IN FIELD
3						
4	PIPE LAYING	6/16/2016	At Williston Station, I observed line pipe being directly laid in the trench, without sandbags or sand padding. The underlying substrate was undisturbed clay without rocks. I questioned the Utility Inspector why no sandbags or select padding material was used. He idicated that the instructions from the chief inspector were only to use such in areas where rock was present. I later met with Darrel Crandall and he indicated to me that his interpretation of the standards were that it was acceptable to lay pipe directly in the bottom of the ditch (where no rock was present). This matter was brought to the attention of VGS management, who also interpreted the code to allow directly laying the pipe on the bottom of the ditch. we requested an interpretation from the engineer of record on the project. On July 7, 2016 we recieved a copy of ANGP-VGS-RFI-025-R0 RESP.pdf – PER SPECIFICATION 31233, THE TRENCH BOTTOM MAY BE PREPARED UTILIZING TWO METHODS NOTED BELOW. WITH EITHER METHOD, THE PIPE SHALL HAVE A MINIMUM OF SIX (6) INCHES OF SELECT BACKFILL/PADDING PLACED BENEATH (BETWEEN IN-SITU NATIVE MATERIAL AND BOTTOM OF PIPE) AND ALL ON SIDES OF THE PIPE (SECTION 3.3.B). 1) THE PIPE MAY BE PLACED ON STACKED SANDBAGS, OR OTHER APPROVED SUPPORT METHOD (SECTION 3.5.B.) AND BACKFILLED AS SPECIFIED IN SECTION 312333. 2) THE PIPE MAY BE "CONTINUOUSLY SUPPORTED" WITH SELECT BACKFILL/PIPE PADDING (MINIMUM 6 INCHES) AS DESCRIBED IN SECTION 312333, PART 3.3.B, AND SHOWN ON DETAILS 3 AND 6 ON SHEET ANGP-T-G-015. THE CONTRACTOR AND CONSTRUCTION MANAGEMENT TEAM SHALL VERIFY THAT THE 6" OF PADDING MATERIAL BELOW THE PIPE MEETS SPECIFICATION 312333 PART 2.1.A. PER THE SPECIFICATIONS AND DETAILS 3 AND 6 ON SHEET ANGP-T-G-015, LAYING THE PIPE DIRECTLY ON IN-SITU NATIVE MATERIAL ON BOTTOM OF TRENCH IS NOT ACCEPTABLE. PER SPECIFICATION 31233, THE TRENCH BOTTOM MAY BE PREPARED UTILIZING TWO METHODS NOTED BELOW. WITH EITHER METHOD, THE PIPE SHALL HAVE A MINIMUM OF SIX (6) INCHES OF SELECT BACKFILL/PADDING PLACED BENEATH (BETWEEN IN-SITU NATIVE MATERIAL AND BOTTOM OF PIPE) AND ALL ON SIDES OF THE PIPE (SECTION 3.3.B). 1) THE PIPE MAY BE PLACED ON STACKED SANDBAGS, OR OTHER APPROVED SUPPORT	§192.303 Compliance with specifications or standards. Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part. Addison Natural Gas Project (ANGP) Phase 1 Technical Specifications Section 312333 3.5 BEDDING AND BACKFILLING A. Contractor shall take all necessary precautions to ensure that backfill materials are kept free of all skids, stumps, welding rods, cans, bottles, trash and other deleterious debris. B. Pipe supports may be installed in all locations prior to backfilling as an alternative to continuous pipe bedding for the entire width of the trench. However, areas around pipe shall still be padded with select backfill as shown on the contract drawings and explained in paragraph 3.3.b. above. Stacked sandbags, pipe pillows, or owner approved equal are acceptable methods. Spacing shall be per manufacturer recommendations, if a commercial product, or 15' maximum separation if sandbags.	Y	TBD
5						

ATTACHMENT A

PIPELINE CONSTRUCTION ISSUES

	A	B	C	D	E	F
6	OPERATOR QUALIFICATION	8/15/2016	While conducting a mainline construction inspection at sta. 1587+60, I observed two employees conducting a coating inspection utilizing a Spy Jeep 785-4979 which was calibrated on 7/20/16. I interviewed Robert Dowling and Jake Sleeper, as part of an operator qualification audit. Both employees were knowledgable about the operation of the jeep, and the proper jeep settings for the various coatings that they were working with. At the concusion of the field audit, I requested copies of the employees op qual records. Upon review of the records I discovered that neither of the employees were qualified to Veriforce Task #426 INSPECT PIPE COATING WITH A HOLIDAY DETECTOR. I notified Jeff Nyberg of Michels Pipeline Construction, and Ryan Schaefer of Mott McDonald Engineering of my findings.	§192.303 Compliance with specifications or standards. Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part. Addison Natural Gas Project (ANGP) Phase 1 Technical Specifications Section 017300 EXECUTION REQUIREMENTS paragraph 3.5 states " Contractor or shall comply with all Owner required Operator Qualification testing, certifications and training."	Y	TBD
7						
10	INSPECTION OF MATERIALS	6/16/2016	While conducting a mainline construction inspection at sta. 570+00, I observed two apparent mill defects in the heat effected zone on 12" girth weld (see photographs in week 24). I questioned the welding inspector about the status of the anomalies and she indicated that they would be cut out. The weld had yet to be radiographed. I returned the following day and found the weld had been sand blasted preparatory to applying an external coating, and had been radiographed. The anomalies were still present. I questioned the welding inspector as to why it was not cut out, and she indicated that the Chief Welding Inspector was investigating it. I made contact with Doug Love, Chief Welding Inspector, and Darrel Crandall Chief Inspector, and they advised me that the anomalies were not severe enough to warrant cutting out. I advised them that during the previous two construction seasons, when these types of anomalies were found in the field, the pipe was rebeveled. They asked where that policy was written, and I advised them that it was an unwritten policy of the previous chief inspectors. They indicated that production could not be interrupted to rebevel defects that did not compromise the integrity of the pipe. A long conversation ensued regarding analysis of surface imperfections, and I provided them a copy of the document" Treatment of surface Imperfections" prepared during construction season 2014.In subsequent meetings with GC Morris, Gas Engineer, Vermont Department of Public Service, and company officials from Vermont Gas, we insisted that if surface imperfections were evaluated in the field, that it would be by qualified individuals, and that a record of the inspection, findings and disposition be documented. Evaluations were subsequently conducted by front end and firing line welding inspectors, until August when a full time NDT was assigned to evaluate pipe joints. In total 288 evaluations were conducted.	§ 192.307 Inspection of materials. Each length of pipe and each other component must be visually inspected at the site of installation to ensure that it has not sustained any visually determinable damage that could impair its serviceability.	N	TBD
11						

ATTACHMENT A

PIPELINE CONSTRUCTION ISSUES

	A	B	C	D	E	F
12	Compliance with Specifications	6/24/2016	At Station # 941+00 I observed pipe be unloaded by use of hydraulic excavator equipped with a vacuum pipe handler.	**§ 192.303 Compliance with specifications or standards.** **Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.** Vermont Gas Systems Inc. Technical Specification Section 130000 – Minimum Requirements For Pipeline Construction Paralleling Overhead Electric Lines, Paragraph 3.3 C states "Pipe shall be unloaded from stringing trucks by a side boom equipped with grounding cable...".	Y	TBD
13						
14	Compliance with Specifications	6/24/2016	At Station # 941+00 I observed pipe being unloaded by use of hydraulic excavator equipped with a vacuum pipe handler, this equipment was not grounded between the equipment and pipe.	**§ 192.303 Compliance with specifications or standards.** **Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.** "Vermont Gas Systems Inc. Technical Specification Section 130000 – Minimum Requirements For Pipeline Construction Paralleling Overhead Electric Lines, Paragraph 3.3(B) which states " Before any section of pipe is picked up or moved in any way the ground shall be completed between the section of pipe and the equipment moving that pipe.".	Y	TBD

ATTACHMENT A

PIPELINE CONSTRUCTION ISSUES

	A	B	C	D	E	F
15	Compliance with Specifications	6/24/2016	At Station # 941+00 I observed a 9 joint pipe string which was grounded with only one ground rod.	**§ 192.303 Compliance with specifications or standards.** **Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.** Vermont Gas Systems Inc. Technical Specification Section 130000 – Minimum Requirements For Pipeline Construction Paralleling Overhead Electric Lines, Paragraph 3.4(A) states " Each continuous segment of pipeline being worked on should be grounded to at least two separate points.".	Y	TBD
16						
17	Compliance with Specifications	6/24/2016	At Station # 941+00 I observed pipe strings grounded with 1/2" ground rods.	**§ 192.303 Compliance with specifications or standards.** **Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.** "Vermont Gas Systems Inc. Technical Specification Section 130000 – Minimum Requirements For Pipeline Construction Paralleling Overhead Electric Lines, Paragraph 3.4(G) states "Each section of pipe in the stack shall be grounded with a 5/8" min. diameter ground rod...".	Y	tbd
18						
19						

ATTACHMENT A

PIPELINE CONSTRUCTION ISSUES

	A	B	C	D	E	F
20	Compliance with Specifications	6/24/2016	At Station # 941+00 I observed pipe being grounded by employees without the direct supervision of the person responsible for electrical safety.	**§ 192.303 Compliance with specifications or standards.** **Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.** "Vermont Gas Systems Inc. Technical Specification Section 130000 – Minimum Requirements For Pipeline Construction Paralleling Overhead Electric Lines, Paragraph(I) states " All grounding attachments and removals shall be made by or under the direct supervision of the person responsible for electrical safety."	Y	TBD
21						
22	Compliance with Specifications	6/24/2016	At Station # 941+00 I observed pipe being bonded using beam style structural clamps. These clamps do not display any electrical rating.	**§ 192.303 Compliance with specifications or standards.** **Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.** "Vermont Gas Systems Inc. Technical Specification Section 130000 – Minimum Requirements For Pipeline Construction Paralleling Overhead Electric Lines, Paragraph(3.4)(B) states "Suitable connectors should be utilized to connect the #2 A.W.G. cable to the individual ground rods and to the pipeline."	Y	TBD
23						

ATTACHMENT A

PIPELINE CONSTRUCTION ISSUES

	A	B	C	D	E	F
24	Compliance with specifications	6/24/2016	7) At Station # 941+00 I observed employees taking voltage and resistance readings at the pipe string. The voltage readings were taken from pipe to the earth instead of from pipe to steel pin, and resistance was checked from pipe to earth. The resistance reading is a check on the cable connection. The employee had no clear understanding of the process.	**§ 192.303 Compliance with specifications or standards.** **Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.** "Vermont Gas Systems Inc. Technical Specification Section 130000 – Minimum Requirements For Pipeline Construction Paralleling Overhead Electric Lines, Paragraph(F) states " The person in charge of electrical safety shall check the integrity of each connection by measuring the resistance from a near point on the copper cable to the ground rod or pipeline steel using a suitable Ohm Meter.".	Y	TBD
25						
26	Compliance with Procedures	6/24/2016	At station # 720+00 a 900 foot +/- pipe string was observed with no bonding or grounding.	**§ 192.303 Compliance with specifications or standards.** **Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.** "Vermont Gas Systems Inc. Technical Specification Section 130000 – Minimum Requirements For Pipeline Construction Paralleling Overhead Electric Lines, Paragraph 3.4(A) states " Each continuous segment of pipeline being worked on should be grounded to at least two separate points."	Y	TBD
27						
28	Compliance with Procedures	6/24/2016	At station # 673+00 I observed employees making line ups to pipe sections being welded handling the pipe without wearing rubber gloves.	**§ 192.303 Compliance with specifications or standards.** **Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.** " Vermont Gas Systems Inc. Technical Specification Section 130000 – Minimum Requirements For Pipeline Construction Paralleling Overhead Electric Lines, Paragraph (M)(1) states "Each person coming into contact with the pipeline during construction should do so only when: (a) Using	Y	TBD
29						

ATTACHMENT A

PIPELINE CONSTRUCTION ISSUES

	A	B	C	D	E	F
30	Compliance with Procedures	6/24/2016	At station #656+00, at a pipe segment over a mile long paralleling the VELCO power lines, no electrical hazard warning signs were posted.	§ 192.303 Compliance with specifications or standards. Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part. "Vermont Gas Systems Inc. Technical Specification Section 130000 – Minimum Requirements For Pipeline Construction Paralleling Overhead Electric Lines, Paragraph #3.8(A) states " The contractor should post adequate signs warning of possible electrical hazards at each access to the right-of-way and any other measures to prevent public access to temporary grounding installation,".	Y	TBD
31						
32	Compliance with Procedures	6/24/2016	11) At station 650+00 I observed a pipe string of 5 continuously bonded pipe joints with a single ½ inch diameter ground rod which had been driven to a depth of only 6 inches.	**§ 192.303 Compliance with specifications or standards. Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.** "Vermont Gas Systems Inc. Technical Specification Section 130000 – Minimum Requirements For Pipeline Construction Paralleling Overhead Electric Lines, Paragraph #3.4(G) states "Each section of pipe in the stack shall be grounded with a 5/8" min. diameter ground rod driven into the ground at least four (4) feet.".	Y	TBD
33						
34	Compliance with Procedures : Operator Qualifications DUPLICATE see line 6	8/15/2016	While conducting a mainline construction inspection at sta. 1587+60, I observed two employees conducting a coating inspection utilizing a Spy Jeep #785-4979 which was calibrated on 7/20/16. I interviewed Robert Dowling and Jake Sleeper, as part of an operator qualification audit. Both employees were knowledgeable about the operation of the jeep, and the proper jeep settings for the various coatings that they were working with. At the conclusion of the field audit, I requested copies of the employees op qual records. Upon review of the records I discovered that neither of the employees were qualified to Veriforce Task #426 INSPECT PIPE COATING WITH A HOLIDAY DETECTOR. I notified Jeff Nyberg of Michels Pipeline Construction, and Ryan Schaefer of Mott McDonald Engineering of my findings.	**§ 192.303 Compliance with specifications or standards. Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.** "Vermont Gas Systems Inc. Technical Specification Section 17300 3.5 C. Contractor shall comply with all Owner required Operator Qualification testing, certifications and training."	~~Y~~	~~TBD~~
35						

ATTACHMENT B

PERSONS INTERVIEWED

PERSONS INTERVIEWED	TITLE	CONTACT NUMBER
Chris LaForce	Engineering Manager, Vermont Gas Systems	1-802-233-4415
Michael Reagan	Hatch Mott MacDonald, Project Manager	1-413-530-6221
Douglas Love	Lead Welding Inspector	1-517-745-2013
Nick Pfundheller	Michels Construction, Project Manager	1-920-539-3764
Carl Bubolz	Michels Construction, Superintenc	1-920-737-4718
George Hess	QA/QC Michels Construction	1-360-640-4180
Roy Gunderson	Stringing Foreman	1-920-638-3535
Barry Emmons	Bending Engineer	1-601-527-0919
Russ Shurpit	Welding Foreman	1-920-948-5286
Jolene Bubolz	Tie In Foreman	920-904-5473
David Hemphill	Tie in foreman	580-9275394
Brandon Duffy	Tie in foreman	920-539-8913
Jeff Nyberg	Lowering in foreman	218-910-8640
Michael Reagan	Project Manager, Mott McDonald	413-530-6221
Darrel Crandall	Chief Inspector	231-510-1624
Doug Love	Chief Welding Inspector	517-745-2013
Connor Gaetta	Materials Coordinator	860-575-6411
Gary Gerlache	Utility Inspector	567-280-2796
Jamie Gunn	Welding Inspector	903-746-8868
John Gunn	Welding Inspector	903-746-6336
Tom Modeen	Utility Inspector	860-308-6198
Scot Morrison	Welding Inspector	208-941-5422
Mike Ray	Utility Inspector	505-259-2256
Ryan Schaeffer	Chief Coating Inspector	850-896-9005
Stephen Taylor	Utility Inspector	413-207-4143
Martin Wiser	Welding Inspector	404-825-6242
John Alssbrooks	Welding Inspector	903-268-3912

OPERATOR QUALIFICATION
FIELD INSPECTION PROTOCOL FORM

Inspection Date(s):	4/19/16- 4/20/16
Name of Operator:	Vermont Gas Systems
Operator ID (OPID):	21190
Inspection Location(s):	Colchester Launcher and Williston Regulator Station
Supervisor(s) Contacted:	Adam Gero
# Qualified Employees Observed:	
# Qualified Contractors Observed:	2 TD Williamson technicians

Individual Observed	Title/Organization	Phone Number	Email Address
Brandon Bolesky	Lead Technician	918-384-8635	na
Charlie Sanchez	Technician	210-616-1939	na

To add rows, press TAB with cursor in last cell.

PHMSA/State Representative	Region/State	Email Address
MCCAULEY	VERMONT	jmccauley@precisionpipelinesolutions.com

To add rows, press TAB with cursor in last cell.

Remarks:
A table for recording specific tasks performed and the individuals who performed the tasks is on the last page of this form. This form is to be uploaded on to the OQBD for the appropriate operator, then imported into the file.

9.01 Covered Task Performance

Verify the qualified individuals performed the observed covered tasks in accordance with the operator's procedures or operator approved contractor procedures.

9.01 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Vermont Gas Systems Purging Procedure 6/26/2014 TD Williamson Launch Procedures Gas Service Section 2.3
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.02 Qualification Status

Verify the individuals performing the observed covered tasks are currently qualified to perform the covered tasks.

9.02 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Bolesky qualified for Veriforce task 613 6/25/2018 Bolesky qualified for Veriforce task 614 6/25/2018 Sanchez qualified for Veriforce task 613 8/13/2017 Sanchez qualified for Veriforce task 614 8/13/2017
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.03 Abnormal Operating Condition Recognition and Reaction

Verify the individuals performing covered tasks are cognizant of the AOCs that are applicable to the tasks observed.

9.03 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Bolesky and Sanchez demonstrated awareness of AOCs applicable in purging operations, and properly implemented safety procedures in accordance with written procedures.
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.04 Verification of Qualification

Verify the qualification records are current, and ensure the personal identification of all individuals performing covered tasks are checked, prior to task performance.

9.04 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.05 Program Inspection Deficiencies

Have potential issues identified by the headquarters inspection process been corrected at the operational level?

9.05 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
	No Issue Identified	
	Potential Issue Identified (explain)	
	N/A (explain)	
X	**Not Inspected**	

Field Inspection Notes

The following table is provided for recording the covered tasks observed and the individuals performing those tasks.

No	Task Name	Name/ID of Individual Observed			Comments
		Bolesky, Brandon	Sanchez, Charlie		
		Correct Performance (Y/N)	Correct Performance (Y/N)	Correct Performance (Y/N)	
1	Veriforce #613 Purge pipeline facilities with gas	Y	Y		Technincians observed conducting purges associated with launching and receiving ILI pig
2	Veriforce #614 Purge pipeline facilities with air or inert gas	Y	Y		Technincians observed conducting purges associated with launching and receiving ILI pig
3					
4					
5					
6					
7					
8					

Operations and Maintenance Records Review

If performing an operations and maintenance records review in the course of your inspection, please review a sample of the qualifications of the individuals performing those O&M tasks that are covered under Operator Qualification and check the records for compliance to 192.807 or 195.507.

192.807 or 195.507	Records supporting an individual's current qualifications shall be maintained while the individual is performing the covered task. Records of prior qualification and records of individuals no longer performing covered tasks shall be retained for a period of five years.	Sat. X	Unsat.	Not Checked

	Comments:			

OPERATOR QUALIFICATION
FIELD INSPECTION PROTOCOL FORM

Inspection Date(s):	6/15/16
Name of Operator:	Vermont Gas Systems Inc
Operator ID (OPID):	22190
Inspection Location(s):	ARNGP pipeline construction, Sta. 800+00
Supervisor(s) Contacted:	George Hess
# Qualified Employees Observed:	
# Qualified Contractors Observed:	1

Individual Observed	Title/Organization	Phone Number	Email Address
Jill Normand	Coating Hand		

To add rows, press TAB with cursor in last cell.

PHMSA/State Representative	Region/State	Email Address
John H McCauley Jr	Vermont	jmccauley@precisionpipelinesolutions.com

To add rows, press TAB with cursor in last cell.

Remarks:
A table for recording specific tasks performed and the individuals who performed the tasks is on the last page of this form. This form is to be uploaded on to the OQBD for the appropriate operator, then imported into the file.

9.01 Covered Task Performance

Verify the qualified individuals performed the observed covered tasks in accordance with the operator's procedures or operator approved contractor procedures.

9.01 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	ANGP PHASE 1 specification #138000 section 3.5 and Canusa K-60 LYE manufacturers specification
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.02 Qualification Status

Verify the individuals performing the observed covered tasks are currently qualified to perform the covered tasks.

9.02 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Jill Normand Veriforce Task #484 apply Approved Coating by Wrap Application 06/11/19
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.03 Abnormal Operating Condition Recognition and Reaction

Verify the individuals performing covered tasks are cognizant of the AOCs that are applicable to the tasks observed.

9.03 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Employee cognizant of full parameters of coating application including temperature ranges, sub surface profiles, proper mixing and applying, dew points, product use by dates. Able to recognize AOCs as they pertain to the covered task.
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.04 Verification of Qualification

Verify the qualification records are current, and ensure the personal identification of all individuals performing covered tasks are checked, prior to task performance.

9.04 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Jill Normand Veriforce Task #484 apply Approved Coating by Wrap Application 06/11/19
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.05 Program Inspection Deficiencies

Have potential issues identified by the headquarters inspection process been corrected at the operational level?

9.05 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
	No Issue Identified	
	Potential Issue Identified (explain)	
	N/A (explain)	
X	**Not Inspected**	

Field Inspection Notes

The following table is provided for recording the covered tasks observed and the individuals performing those tasks.

No	Task Name	Name/ID of Individual Observed			Comments
		Jill Normand			
		Correct Performance (Y/N)	Correct Performance (Y/N)	Correct Performance (Y/N)	
1	Veriforce Task #484apply Approved Coating by Wrap Application	Y			
2					
3					
4					
5					
6					
7					
8					

Operations and Maintenance Records Review

If performing an operations and maintenance records review in the course of your inspection, please review a sample of the qualifications of the individuals performing those O&M tasks that are covered under Operator Qualification and check the records for compliance to 192.807 or 195.507.

		Sat.	Unsat.	Not Checked
192.807 or 195.507	Records supporting an individual's current qualifications shall be maintained while the individual is performing the covered task. Records of prior qualification and records of individuals no longer performing covered tasks shall be retained for a period of five years.	X		

	Comments:			

OPERATOR QUALIFICATION
FIELD INSPECTION PROTOCOL FORM

Inspection Date(s):	7/6/16
Name of Operator:	Vermont Gas Systems Inc
Operator ID (OPID):	22190
Inspection Location(s):	ARNGP pipeline construction, Sta. 800+00
Supervisor(s) Contacted:	George Hess
# Qualified Employees Observed:	
# Qualified Contractors Observed:	1

Individual Observed	Title/Organization	Phone Number	Email Address
Jessica Henderson	Coating Hand		

To add rows, press TAB with cursor in last cell.

PHMSA/State Representative	Region/State	Email Address
John H McCauley Jr	Vermont	jmccauley@precisionpipelinesolutions.com

To add rows, press TAB with cursor in last cell.

Remarks:
A table for recording specific tasks performed and the individuals who performed the tasks is on the last page of this form. This form is to be uploaded on to the OQBD for the appropriate operator, then imported into the file.

9.01 Covered Task Performance

Verify the qualified individuals performed the observed covered tasks in accordance with the operator's procedures or operator approved contractor procedures.

9.01 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	ANGP PHASE 1 specification #138000 section 3.5 and Canusa K-60 LYE manufacturers specification
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.02 Qualification Status

Verify the individuals performing the observed covered tasks are currently qualified to perform the covered tasks.

9.02 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Jessica Henderson Veriforce Task #484 apply Approved Coating by Wrap Application 06/02/19
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.03 Abnormal Operating Condition Recognition and Reaction

Verify the individuals performing covered tasks are cognizant of the AOCs that are applicable to the tasks observed.

9.03 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Employee cognizant of full parameters of coating application including temperature ranges, sub surface profiles, proper mixing and applying, dew points, product use by dates. Able to recognize AOCs as they pertain to the covered task.
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.04 Verification of Qualification

Verify the qualification records are current, and ensure the personal identification of all individuals performing covered tasks are checked, prior to task performance.

9.04 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Jessica Henderson Veriforce Task #484 apply Approved Coating by Wrap Application 06/02/19
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.05 Program Inspection Deficiencies

Have potential issues identified by the headquarters inspection process been corrected at the operational level?

9.05 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
	No Issue Identified	
	Potential Issue Identified (explain)	
	N/A (explain)	
X	**Not Inspected**	

Field Inspection Notes

The following table is provided for recording the covered tasks observed and the individuals performing those tasks.

No	Task Name	Name/ID of Individual Observed			Comments
		Jesica Henderson			
		Correct Performance (Y/N)	Correct Performance (Y/N)	Correct Performance (Y/N)	
1	Veriforce Task #484apply Approved Coating by Wrap Application	Y			
2					
3					
4					
5					
6					
7					
8					

Operations and Maintenance Records Review

If performing an operations and maintenance records review in the course of your inspection, please review a sample of the qualifications of the individuals performing those O&M tasks that are covered under Operator Qualification and check the records for compliance to 192.807 or 195.507.

		Sat.	Unsat.	Not Checked
192.807 or 195.507	Records supporting an individual's current qualifications shall be maintained while the individual is performing the covered task. Records of prior qualification and records of individuals no longer performing covered tasks shall be retained for a period of five years.	x		

	Comments:			

ATTACHMENT C

PRICE DUPUIS

OPERATOR QUALIFICATION
FIELD INSPECTION PROTOCOL FORM

Inspection Date(s):	7/11/16
Name of Operator:	Vermont Gas Systems Inc
Operator ID (OPID):	22190
Inspection Location(s):	ARNGP pipeline construction, Sta. 2067+00
Supervisor(s) Contacted:	George Hess
# Qualified Employees Observed:	
# Qualified Contractors Observed:	2

Individual Observed	Title/Organization	Phone Number	Email Address
David Price	Coating Hand		
Eric Dupuis	Coating Hand		

To add rows, press TAB with cursor in last cell.

PHMSA/State Representative	Region/State	Email Address
John H McCauley Jr	Vermont	jmccauley@precisionpipelinesolutions.com

To add rows, press TAB with cursor in last cell.

Remarks:
A table for recording specific tasks performed and the individuals who performed the tasks is on the last page of this form. This form is to be uploaded on to the OQBD for the appropriate operator, then imported into the file.

9.01 Covered Task Performance

Verify the qualified individuals performed the observed covered tasks in accordance with the operator's procedures or operator approved contractor procedures.

9.01 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	ANGP PHASE 1 specification #138000 section 3.5 and Denso Protol 7200 manufacturers specification
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.02 Qualification Status

Verify the individuals performing the observed covered tasks are currently qualified to perform the covered tasks.

9.02 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Eric Dupois Veriforce Task #480 apply Approved Coating by Hand Application 06/02/19 David Price Veriforce Task #480 apply Approved Coating by Hand Application 06/11/2019
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.03 Abnormal Operating Condition Recognition and Reaction

Verify the individuals performing covered tasks are cognizant of the AOCs that are applicable to the tasks observed.

9.03 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Employees cognizant of full parameters of coating application including temperature ranges, sub surface profiles, proper mixing and applying, dew points, product use by dates. Able to recognize AOCs as they pertain to the covered task.
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.04 Verification of Qualification

Verify the qualification records are current, and ensure the personal identification of all individuals performing covered tasks are checked, prior to task performance.

9.04 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Eric Dupois Veriforce Task #480 apply Approved Coating by Hand Application 06/02/19 David Price Veriforce Task #480 apply Approved Coating by Hand Application 06/11/2019
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.05 Program Inspection Deficiencies

Have potential issues identified by the headquarters inspection process been corrected at the operational level?

9.05 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
	No Issue Identified	
	Potential Issue Identified (explain)	
	N/A (explain)	
X	**Not Inspected**	

Field Inspection Notes

The following table is provided for recording the covered tasks observed and the individuals performing those tasks.

No	Task Name	Name/ID of Individual Observed			Comments
		Eric Dupois	David Price		
		Correct Performance (Y/N)	Correct Performance (Y/N)	Correct Performance (Y/N)	
1	Veriforce Task #480 apply Approved Coating by Hand Application	Y	Y		
2					
3					
4					
5					
6					
7					
8					

Operations and Maintenance Records Review

If performing an operations and maintenance records review in the course of your inspection, please review a sample of the qualifications of the individuals performing those O&M tasks that are covered under Operator Qualification and check the records for compliance to 192.807 or 195.507.

192.807 or 195.507	Records supporting an individual's current qualifications shall be maintained while the individual is performing the covered task. Records of prior qualification and records of individuals no longer performing covered tasks shall be retained for a period of five years.	Sat. x	Unsat.	Not Checked

	Comments:			

OPERATOR QUALIFICATION
FIELD INSPECTION PROTOCOL FORM

Inspection Date(s):	7/21/16
Name of Operator:	Vermont Gas Systems Inc
Operator ID (OPID):	22190
Inspection Location(s):	ARNGP pipeline construction, Sta. 1063+00
Supervisor(s) Contacted:	George Hess
# Qualified Employees Observed:	
# Qualified Contractors Observed:	1

Individual Observed	Title/Organization	Phone Number	Email Address
CHARLE HEMPHLING	Coating Hand		
JOSE BARRON	COATING HAND		

To add rows, press TAB with cursor in last cell.

PHMSA/State Representative	Region/State	Email Address
John H McCauley Jr	Vermont	jmccauley@precisionpipelinesolutions.com

To add rows, press TAB with cursor in last cell.

Remarks:
A table for recording specific tasks performed and the individuals who performed the tasks is on the last page of this form. This form is to be uploaded on to the OQBD for the appropriate operator, then imported into the file.

9.01 Covered Task Performance

Verify the qualified individuals performed the observed covered tasks in accordance with the operator's procedures or operator approved contractor procedures.

9.01 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	ANGP PHASE 1 specification #138000 section 3.5 and Canusa K-60 LYE manufacturers specification
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.02 Qualification Status

Verify the individuals performing the observed covered tasks are currently qualified to perform the covered tasks.

9.02 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Charles Hemphling Veriforce Task #484 apply Approved Coating by Wrap Application 06/21/19 Veriforce Task #480 Apply Approved Coating by Wrap Application 6/21/19 Jose Barron Veriforce Task #484 apply Approved Coating by Wrap Application 06/10/19 Verforce Task #480 Apply Approved Coating by Wrap Application 6/10/19
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.03 Abnormal Operating Condition Recognition and Reaction

Verify the individuals performing covered tasks are cognizant of the AOCs that are applicable to the tasks observed.

9.03 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Employees cognizant of full parameters of coating application including temperature ranges, sub surface profiles, proper mixing and applying, dew points, product use by dates. Able to recognize AOCs as they pertain to the covered task.
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.04 Verification of Qualification

Verify the qualification records are current, and ensure the personal identification of all individuals performing covered tasks are checked, prior to task performance.

9.04 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.05 Program Inspection Deficiencies

Have potential issues identified by the headquarters inspection process been corrected at the operational level?

9.05 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
	No Issue Identified	
	Potential Issue Identified (explain)	
	N/A (explain)	
X	**Not Inspected**	

Field Inspection Notes

The following table is provided for recording the covered tasks observed and the individuals performing those tasks.

No	Task Name	Name/ID of Individual Observed			Comments
		Charles Hemphling	Jose barron		
		Correct Performance (Y/N)	Correct Performance (Y/N)	Correct Performance (Y/N)	
1	Veriforce Task #484apply Approved Coating by Wrap Application	Y	Y		
2	Verforce Task #480 Apply Approved Coating by Wrap Application	Y	Y		
3					
4					
5					
6					
7					
8					

Operations and Maintenance Records Review

If performing an operations and maintenance records review in the course of your inspection, please review a sample of the qualifications of the individuals performing those O&M tasks that are covered under Operator Qualification and check the records for compliance to 192.807 or 195.507.

		Sat.	Unsat.	Not Checked
192.807 or 195.507	Records supporting an individual's current qualifications shall be maintained while the individual is performing the covered task. Records of prior qualification and records of individuals no longer performing covered tasks shall be retained for a period of five years.	v		

DOWLAND, SLEEPER

OPERATOR QUALIFICATION
FIELD INSPECTION PROTOCOL FORM

Inspection Date(s):	08/15/16
Name of Operator:	Vermont Gas Systems Inc
Operator ID (OPID):	22190
Inspection Location(s):	1587+60
Supervisor(s) Contacted:	Jeff Nyberg, Michels Lowering In Foreman 1-218-910-8640
# Qualified Employees Observed:	
# Qualified Contractors Observed:	0

Individual Observed	Title/Organization	Phone Number	Email Address
Robert Dowland	Laborer		
Jake Sleeper	Laborer		

To add rows, press TAB with cursor in last cell.

PHjMSA/State Representative	Region/State	Email Address
John McCauley Jr	Vermont/ PPS	jmccauley@precisionpipelinesolutions.coms

To add rows, press TAB with cursor in last cell.

Remarks:
A table for recording specific tasks performed and the individuals who performed the tasks is on the last page of this form. This form is to be uploaded on to the OQBD for the appropriate operator, then imported into the file.

9.01 Covered Task Performance

Verify the qualified individuals performed the observed covered tasks in accordance with the operator's procedures or operator approved contractor procedures.

9.01 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	VGS SPECIFICATION 138000 3.3 (G) COATINGS VERIFORCE TASK #426 INSPECT PIPE COATING WITH A HOLIDAY DETECTOR.
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.02 Qualification Status

Verify the individuals performing the observed covered tasks are currently qualified to perform the covered tasks.

9.02 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
	No Issue Identified	Neither Dowland or Sleeper were qualified to Veriforce Task #426 on 8/15/16.
X	**Potential Issue Identified (explain)**	
	N/A (explain)	
	Not Inspected	

9.03 Abnormal Operating Condition Recognition and Reaction

Verify the individuals performing covered tasks are cognizant of the AOCs that are applicable to the tasks observed.

9.03 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Both Dowland and Sleeper knew the correct jeep settings for the various coatings utilized on the project. They were also aware of AOCs associated with jeeping.
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.04 Verification of Qualification

Verify the qualification records are current, and ensure the personal identification of all individuals performing covered tasks are checked, prior to task performance.

9.04 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.05 Program Inspection Deficiencies

Have potential issues identified by the headquarters inspection process been corrected at the operational level?

9.05 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
	No Issue Identified	
	Potential Issue Identified (explain)	
	N/A (explain)	
X	**Not Inspected**	

Field Inspection Notes

The following table is provided for recording the covered tasks observed and the individuals performing those tasks.

No	Task Name	Name/ID of Individual Observed			Comments
		Robert Dowland	Jake Sleeper		
		Correct Performance (Y/N)	Correct Performance (Y/N)	Correct Performance (Y/N)	
1	VERIFORCE TASK #426 INSPECT PIPE COATING WITH A HOLIDAY DETECTOR.	Y	Y		
2					
3					
4					
5					
6					
7					
8					

Operations and Maintenance Records Review

If performing an operations and maintenance records review in the course of your inspection, please review a sample of the qualifications of the individuals performing those O&M tasks that are covered under Operator Qualification and check the records for compliance to 192.807 or 195.507.

192.807 or 195.507	Records supporting an individual's current qualifications shall be maintained while the individual is performing the covered task. Records of prior qualification and records of individuals no longer performing covered tasks shall be retained for a period of five years.	Sat. X	Unsat.	Not Checked

	Comments: Employee Dowland claimed to have had training on another project. Employee Sleeper learned about jeeping on this project, but had never been op qualed.			

OPERATOR QUALIFICATION
FIELD INSPECTION PROTOCOL FORM

Inspection Date(s):	8/19/16, 8/20/16
• **Name of Operator:**	Vermont Gas Systems Inc
Operator ID (OPID):	22190
Inspection Location(s):	ARNGP pipeline construction, Sta. 1622+00
Supervisor(s) Contacted:	George Hess QA/QC Michels Pipeline Construction: 1-360-640-4180
# Qualified Employees Observed:	
# Qualified Contractors Observed:	2

Individual Observed	Title/Organization	Phone Number	Email Address
Chris Anderson	Equipment Operator		
Craig Anderson	Equipment Operator		

To add rows, press TAB with cursor in last cell.

PHMSA/State Representative	Region/State	Email Address
John H McCauley Jr	Vermont	jmccauley@precisionpipelinesolutions.com

To add rows, press TAB with cursor in last cell.

Remarks:
A table for recording specific tasks performed and the individuals who performed the tasks is on the last page of this form. This form is to be uploaded on to the OQBD for the appropriate operator, then imported into the file.

9.01 Covered Task Performance

Verify the qualified individuals performed the observed covered tasks in accordance with the operator's procedures or operator approved contractor procedures.

9.01 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	ANGP PHASE 1 specification #312333 TRENCHING, PIPELAYING AND BACKFILLING
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.02 Qualification Status

Verify the individuals performing the observed covered tasks are currently qualified to perform the covered tasks.

9.02 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Chris Anderson, Craig Anderson qualified to Veriforce Task #905 LOWERING PIPE INTO THE DITCH 5/30/17 #607 DAMAGE PREVENTION: OBSERVATION OF EXCAVATING AND BACKFILLING 5/30/17
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.03 Abnormal Operating Condition Recognition and Reaction

Verify the individuals performing covered tasks are cognizant of the AOCs that are applicable to the tasks observed.

9.03 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Chris Anderson and Craig Anderson were cognizant of AOCs as they pertain to handling of the pipe and backfilling as well as induced currents on the pipe and proper handling techniques.
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.04 Verification of Qualification

Verify the qualification records are current, and ensure the personal identification of all individuals performing covered tasks are checked, prior to task performance.

9.04 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	#905 LOWERING PIPE INTO THE DITCH 5/30/17; VERIFORCE TASK # 607 DAMAGE PREVENTION OBSERVATION OF EXCAVATING AND BACKFILLING 5/30/17
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.05 Program Inspection Deficiencies

Have potential issues identified by the headquarters inspection process been corrected at the operational level?

9.05 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
	No Issue Identified	
	Potential Issue Identified (explain)	
	N/A (explain)	
X	**Not Inspected**	

Field Inspection Notes

The following table is provided for recording the covered tasks observed and the individuals performing those tasks.

No		Name/ID of Individual Observed			Comments
		Chris Anderson	Craig Anderson		
		Correct Performance (Y/N)	Correct Performance (Y/N)	Correct Performance (Y/N)	
1	VERIFORCE TASK #905 LOWERING PIPE INTO THE DITCH	Y	Y		
2	VERIFORCE TASK # 607 DAMAGE PREVENTION OBSERVATION OF EXCAVATING AND BACKFILLING	Y	Y		
4					
5					
6					
7					
8					

Operations and Maintenance Records Review

If performing an operations and maintenance records review in the course of your inspection, please review a sample of the qualifications of the individuals performing those O&M tasks that are covered under Operator Qualification and check the records for compliance to 192.807 or 195.507.

		Sat.	Unsat.	Not Checked
192.807 or 195.507	Records supporting an individual's current qualifications shall be maintained while the individual is performing the covered task. Records of prior qualification and records of individuals no longer performing covered tasks shall be retained for a period of five years.	x		
	Comments:			

OPERATOR QUALIFICATION
FIELD INSPECTION PROTOCOL FORM

Inspection Date(s):	8/19/16
• **Name of Operator:**	Vermont Gas Systems Inc
Operator ID (OPID):	22190
Inspection Location(s):	ARNGP pipeline construction, Sta. 1622+00
Supervisor(s) Contacted:	George Hess QA/QC Michels Pipeline Construction: 1-360-640-4180
# Qualified Employees Observed:	
# Qualified Contractors Observed:	3

Individual Observed	Title/Organization	Phone Number	Email Address
Jon Hill	Equipment Operator		
William Furman	Equipment Operator		
Mark Langlois	Equipment Operator		

To add rows, press TAB with cursor in last cell.

PHMSA/State Representative	Region/State	Email Address
John H McCauley Jr	Vermont	jmccauley@precisionpipelinesolutions.com

To add rows, press TAB with cursor in last cell.

Remarks:
A table for recording specific tasks performed and the individuals who performed the tasks is on the last page of this form. This form is to be uploaded on to the OQBD for the appropriate operator, then imported into the file.

9.01 Covered Task Performance

Verify the qualified individuals performed the observed covered tasks in accordance with the operator's procedures or operator approved contractor procedures.

9.01 Inspection Results (type an X in exactly one cell below)		Inspection Notes
X	No Issue Identified	ANGP PHASE 1 specification #312333 TRENCHING, PIPELAYING AND BACKFILLING
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.02 Qualification Status

Verify the individuals performing the observed covered tasks are currently qualified to perform the covered tasks.

9.02 Inspection Results (type an X in exactly one cell below)		Inspection Notes
X	No Issue Identified	Mark Langlois, Bob McGuire, Craig Anderson qualified to Veriforce Task #905 LOWERING PIPE INTO THE DITCH #607 DAMAGE PREVENTION: OBSERVATION OF EXCAVATING AND BACKFILLING
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.03 Abnormal Operating Condition Recognition and Reaction

Verify the individuals performing covered tasks are cognizant of the AOCs that are applicable to the tasks observed.

9.03 Inspection Results (type an X in exactly one cell below)		Inspection Notes
X	No Issue Identified	Mark Langlois, Bob McGuire and Craig Anderson were cognizant of AOCs as they pertain to handling of the pipe and backfilling as well as induced currents on the pipe and proper handling techniques.
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.04 Verification of Qualification

Verify the qualification records are current, and ensure the personal identification of all individuals performing covered tasks are checked, prior to task performance.

9.04 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Mark Langlois Veriforce Task VERIFORCE TASK #404 PROTECTION OF COATING WHEN BACKFILLING AND FROM BELOW GROUND PIPE SUPPORTS 4/23/18, VERIFORCE TASK # 607 4/23/18 William Furman Veriforce Task #905 LOWERING PIPE INTO THE DITCH 8/11/19; VERIFORCE TASK # 607 DAMAGE PREVENTION OBSERVATION OF EXCAVATING AND BACKFILLING 8/11/19
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.05 Program Inspection Deficiencies

Have potential issues identified by the headquarters inspection process been corrected at the operational level?

9.05 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
	No Issue Identified	
	Potential Issue Identified (explain)	
	N/A (explain)	
X	**Not Inspected**	

Field Inspection Notes

The following table is provided for recording the covered tasks observed and the individuals performing those tasks.

No	Task Name	Name/ID of Individual Observed			Comments
		Jon Hill	William Furman	Mark Langlois	
		Correct Performance (Y/N)	Correct Performance (Y/N)	Correct Performance (Y/N)	
1	VERIFORCE TASK #905 LOWERING PIPE INTO THE DITCH	Y	Y		
2	VERIFORCE TASK # 607 DAMAGE PREVENTION OBSERVATION OF EXCAVATING AND BACKFILLING	Y	Y	Y	
3	VERIFORCE TASK #404 PROTECTION OF COATING WHEN BACKFILLING AND FROM BELOW GROUND PIPE SUPPORTS			Y	
4					
5					
6					
7					
8					

Operations and Maintenance Records Review

If performing an operations and maintenance records review in the course of your inspection, please review a sample of the qualifications of the individuals performing those O&M tasks that are covered under Operator Qualification and check the records for compliance to 192.807 or 195.507.

		Sat.	Unsat.	Not Checked
192.807 or 195.507	Records supporting an individual's current qualifications shall be maintained while the individual is performing the covered task. Records of prior qualification and records of individuals no longer performing covered tasks shall be retained for a period of five years.	x		
	Comments:			

OPERATOR QUALIFICATION
FIELD INSPECTION PROTOCOL FORM

Inspection Date(s):	8/19/16, 8/20/16
Name of Operator:	Vermont Gas Systems Inc
Operator ID (OPID):	22190
Inspection Location(s):	ARNGP pipeline construction, Sta. 1622+00
Supervisor(s) Contacted:	George Hess QA/QC Michels Pipeline Construction: 1-360-640-4180
# Qualified Employees Observed:	
# Qualified Contractors Observed:	2

Individual Observed	Title/Organization	Phone Number	Email Address
Jon Hill	Equipment Operator		
Doug Hendry	Equipment Operator		

To add rows, press TAB with cursor in last cell.

PHMSA/State Representative	Region/State	Email Address
John H McCauley Jr	Vermont	jmccauley@precisionpipelinesolutions.com

To add rows, press TAB with cursor in last cell.

Remarks:
A table for recording specific tasks performed and the individuals who performed the tasks is on the last page of this form. This form is to be uploaded on to the OQBD for the appropriate operator, then imported into the file.

9.01 Covered Task Performance

Verify the qualified individuals performed the observed covered tasks in accordance with the operator's procedures or operator approved contractor procedures.

9.01 Inspection Results (type an X in exactly one cell below)		Inspection Notes
X	No Issue Identified	ANGP PHASE 1 specification #312333 TRENCHING, PIPELAYING AND BACKFILLING
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.02 Qualification Status

Verify the individuals performing the observed covered tasks are currently qualified to perform the covered tasks.

9.02 Inspection Results (type an X in exactly one cell below)		Inspection Notes
X	No Issue Identified	Douglas Hendry and Jon Hill to Veriforce Task #905 LOWERING PIPE INTO THE DITCH #607 DAMAGE PREVENTION: OBSERVATION OF EXCAVATING AND BACKFILLING
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.03 Abnormal Operating Condition Recognition and Reaction

Verify the individuals performing covered tasks are cognizant of the AOCs that are applicable to the tasks observed.

9.03 Inspection Results (type an X in exactly one cell below)		Inspection Notes
X	No Issue Identified	Doug Hendry and Jon Hill were cognizant of AOCs as they pertain to handling of the pipe and backfilling as well as induced currents on the pipe and proper handling techniques.
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.04 Verification of Qualification

Verify the qualification records are current, and ensure the personal identification of all individuals performing covered tasks are checked, prior to task performance.

9.04 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Jon Hill Veriforce Task #905 LOWERING PIPE INTO THE DITCH 8/15/19; VERIFORCE TASK # 607 DAMAGE PREVENTION OBSERVATION OF EXCAVATING AND BACKFILLING 6/1/19 Douglas Hendry Veriforce Task #905 LOWERING PIPE INTO THE DITCH 7/18/19; VERIFORCE TASK # 607 DAMAGE PREVENTION OBSERVATION OF EXCAVATING AND BACKFILLING 7/18/19
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.05 Program Inspection Deficiencies

Have potential issues identified by the headquarters inspection process been corrected at the operational level?

9.05 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
	No Issue Identified	
	Potential Issue Identified (explain)	
	N/A (explain)	
X	**Not Inspected**	

Field Inspection Notes

The following table is provided for recording the covered tasks observed and the individuals performing those tasks.

No	Task Name	Name/ID of Individual Observed			Comments
		Jon Hill	Douglas Hendry		
		Correct Performance (Y/N)	Correct Performance (Y/N)	Correct Performance (Y/N)	
1	VERIFORCE TASK #905 LOWERING PIPE INTO THE DITCH	Y	Y		
2	VERIFORCE TASK # 607 DAMAGE PREVENTION OBSERVATION OF EXCAVATING AND BACKFILLING	Y	Y		
3					
4					
5					
6					
7					
8					

Operations and Maintenance Records Review

If performing an operations and maintenance records review in the course of your inspection, please review a sample of the qualifications of the individuals performing those O&M tasks that are covered under Operator Qualification and check the records for compliance to 192.807 or 195.507.

		Sat.	Unsat,	Not Checked
192.807 or 195.507	Records supporting an individual's current qualifications shall be maintained while the individual is performing the covered task. Records of prior qualification and records of individuals no longer performing covered tasks shall be retained for a period of five years.	x		
	Comments:			

OPERATOR QUALIFICATION
FIELD INSPECTION PROTOCOL FORM

Inspection Date(s):	9/26/16
Name of Operator:	Vermont Gas Systems Inc
Operator ID (OPID):	22190
Inspection Location(s):	ARNGP pipeline construction, Phase 7, rock cut
Supervisor(s) Contacted:	George Hess
# Qualified Employees Observed:	
# Qualified Contractors Observed:	1

Individual Observed	Title/Organization	Phone Number	Email Address
Kenneth McCarthy	Dozer hand		

To add rows, press TAB with cursor in last cell.

PHMSA/State Representative	Region/State	Email Address
John H McCauley Jr	Vermont	jmccauley@precisionpipelinesolutions.com

To add rows, press TAB with cursor in last cell.

Remarks:
A table for recording specific tasks performed and the individuals who performed the tasks is on the last page of this form. This form is to be uploaded on to the OQBD for the appropriate operator, then imported into the file.

9.01 Covered Task Performance

Verify the qualified individuals performed the observed covered tasks in accordance with the operator's procedures or operator approved contractor procedures.

9.01 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	ANGP PHASE 7 Sta. 389+
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.02 Qualification Status

Verify the individuals performing the observed covered tasks are currently qualified to perform the covered tasks.

9.02 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Eric Dupois Veriforce Task #480 apply Approved Coating by Hand Application 06/02/19 David Price Veriforce Task #480 apply Approved Coating by Hand Application 06/11/2019
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.03 Abnormal Operating Condition Recognition and Reaction

Verify the individuals performing covered tasks are cognizant of the AOCs that are applicable to the tasks observed.

9.03 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Employees cognizant of full parameters of coating application including temperature ranges, sub surface profiles, proper mixing and applying, dew points, product use by dates. Able to recognize AOCs as they pertain to the covered task.
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.04 Verification of Qualification

Verify the qualification records are current, and ensure the personal identification of all individuals performing covered tasks are checked, prior to task performance.

9.04 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
X	**No Issue Identified**	Eric Dupois Veriforce Task #480 apply Approved Coating by Hand Application 06/02/19 David Price Veriforce Task #480 apply Approved Coating by Hand Application 06/11/2019
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

9.05 Program Inspection Deficiencies

Have potential issues identified by the headquarters inspection process been corrected at the operational level?

9.05 Inspection Results (type an X in exactly one cell below)		**Inspection Notes**
	No Issue Identified	
	Potential Issue Identified (explain)	
	N/A (explain)	
X	**Not Inspected**	

Field Inspection Notes

The following table is provided for recording the covered tasks observed and the individuals performing those tasks.

No	Task Name	Name/ID of Individual Observed			Comments
		Eric Dupois	David Price		
		Correct Performance (Y/N)	Correct Performance (Y/N)	Correct Performance (Y/N)	
1	Veriforce Task #480 apply Approved Coating by Hand Application	Y	Y		
2					
3					
4					
5					
6					
7					
8					

Operations and Maintenance Records Review

If performing an operations and maintenance records review in the course of your inspection, please review a sample of the qualifications of the individuals performing those O&M tasks that are covered under Operator Qualification and check the records for compliance to 192.807 or 195.507.

		Sat.	Unsat.	Not Checked
192.807 or 195.507	Records supporting an individual's current qualifications shall be maintained while the individual is performing the covered task. Records of prior qualification and records of individuals no longer performing covered tasks shall be retained for a period of five years.	Y		

	Comments:			

ATTACHMENT D

PHASE 1 LINE PIPE AUDIT FBE

NUMBER OF RECORDS	753		RANDOM #	JOINT #	HEAT #
PERCENT OF SAMPLE		TOTAL			
AUDIT NUMBERS	25.00	#AUDITED			
		RANDOM	0	A0439	ND0930
			0	A0452	SD1404
			0	A0493	NDO936
			0	A0521	SD1183
			0	A0573	ND0933
			204	A0629	ND0934
			0	A0633	SD1176
			223	A0648	ND0937
			233	A0658	ND0936
			261	A0686	ND0930
			0	A0700	ND0697
			0	A0808	SD1183
			0	A0813	SD1174
			0	A0871	ND0931
			0	A0973	ND0933
			0	A0985	ND0933
			0	A1010	ND09[illegible]
			0	A1011	SD1179
			0	A1030	SD1173
			0	A1081	SD1179
			0	A1084	SD1182
			0	A1132	ND0698
			0	A1143	SD1175
			0	A1159	SD1175
			0	A1181	SD1402
			0	A1194	ND0697
			0	A4915	1163861
			0	A4919	1163864
			0		

AUDIT NOTES: I selected a sampling based on statistical sampling protocals, and utilizing a random number generator, determined which records to audit. Row E line 4-30 represents the cell number being audited (DISREGARD). Row F 4-30 represents the VGS joint number assigned to the pipe joint, and Row G 4-30 are the heat numbers for the MTRs that were audited.

All records in this audit were found compliant.

ATTACHMENT D

PHASE 1 LINE PIPE AUDIT ARO

			RANDOM #	JOINT #	HEAT #
NUMBER OF RECORDS	608				
PERCENT OF SAMPLE		TOTAL			
AUDIT NUMBERS	25.00	#AUDITED			
		RANDOM	17	A0014	NC5643
			51	A0084	TC5994
			56	A0095	TC5994
			60	A0104	TC5994
			80	A0129	TC5994
			94	A0144	SC5997
			111	A0168	TC5994
			124	A0185	SC5997
			189	A0262	NC5643
			230	A0329	PC5641
			251	A0361	NC5643
			291	A0067	PC5641
			348	A0286	SC5997
			389	A0375	PC5641
			391	A0377	NC5643
			397	A0383	SC5997
			425	A0420	PC5641
			37	A4780	SE0857
			53	A4797	SE0857
			99	A4843	1163864
			113	A4857	1163864
			140	A4884	1163864
			167	A4911	1163864
			171	A4915	1163861
			175	A4919	1163864

AUDIT NOTES: I selected a sampling based on statistical sampling protocals, and utilizing a random number generator, determined which records to audit. Row E line 4-28 represents the cell number being audited (DISREGARD). Row F 4-28 represents the VGS joint number assigned to the pipe joint, and Row G 4-28 are the heat numbers for the MTRs that were audited.

All records in this audit were found compliant.

ATTACHMENT D

PHASE 1 LINE PIPE AUDIT PRITEC

			RANDOM #	JOINT #	HEAT #
NUMBER OF RECORDS	2722				
PERCENT OF SAMPLE		TOTAL			
AUDIT NUMBERS	26.00	#AUDITED			
		RANDOM	0	A1360	NDO937
			0	A1630	NDO936
			0	A1644	SD1404
			302	A1482	NDO933
			317	A1497	SD1403
			363	A1543	SD1175
			507	A1687	SD1185
			534	A1714	SD1172
			590	A1770	SD1404
			0	A2078	SD1183
			0	A3139	SD1173
			0	A3369	SD1170
			1387	A3411	SD1406
			1400	A3424	SD1402
			0	A3478	SD1172
			0	A3791	SD1182
			0	A3974	NDO93[illegible]
			0	A4017	SD1404
			0	A4084	NDO699
			0	A4154	SD1176
			0	A4217	SD1173
			0	A4292	SD1171
			0	A4324	NDO93[illegible]
			0	A4562	NDO934
			0	A4615	NDO934
			0	A4721	SD1171
			0	A4745	SD1172

AUDIT NOTES: I selected a sampling based on statistical sampling protocals, and utilizing a random number generator, determined which records to audit. Row E line 4-30 represents the cell number being audited (DISREGARD). Row F 4-30 represents the VGS joint number assigned to the pipe joint, and Row G 4-30 are the heat numbers for the MTRs that were audited.

All records in this audit were found compliant.

ATTACHMENT D

MAINLINE VALVE AUDIT #2, #3, #4

			FLANGES	VALVES	REGULATORS	PIPE	WELDOLETS	FITTINGS	MISC
NUMBER OF RECORDS	13								
PERCENT OF SAMPLE	100.00%	TOTAL	18	12	NA	6	18	12	
AUDIT NUMBERS	13.00	#AUDITED	18	12	NA	6	18	12	
		RANDOM	NA	NA	NA	NA	NA	NA	NA
			6-4" FLANGE P158	1-4" VALVE 535691		4" gr B HA 4916	18- 1" HT59902	TEE HTJ2K8147	
			6-2" FLANGE P158	1-4" VALVE 535688		4" X65 C84768		45DEG 4" HT 483431	
			6-2" FLANGE TL10004409	1-4" VALVE 535692		12" HT NC5926			
				1-2" VALVE 535668		12" HT#500-SC5601			
						1"WO995		TEE HTJ2K4234	
				1-2" VALVE 535685		1"W21206		6- YALE CAPS HT YDR	
				1-2" VALVE 535692				6- 12" TEE HT 903966AH	
				1-2" VALVE 535713					
				1-2" VALVE 535714					
				1-2" VALVE 535716					
				1- 12" CAMERON VALVE BJ130076001-006					
				1- 12" CAMERON VALVE BJ130076001-018					
				12" VALVE BJ130076011 017 --1					

AUDIT METHODOLOGY

Six 12" mainline valve installations were fabricated and installed in construction season 2016. After obtaining the weld maps for the valves I set about verifying the heat numbers of the components in the field by visual inspection. Shortly in to the process I realized that the heat numbers for the majority of components were of the same batches across the entire sampling. I therefore adjusted my audit methodology from auditing a statistical sampling of each valves components, to conducting a 100% audit of half of the valves. The valves I selected were MLV2, MLV3, and MLV4.

After verifying that the weld map heat numbers matched the components found in the field I went to the field trailer and pulled the MTRs and verified that each of the heat numbers were accounted for and that the fittings and valves were rated at 600 class, and that pipe heat numbers were for the grades and wall thicknesses specified in the construction drawings.

At the time this audit was conducted the 1" valves on the vertical risers had not been fabricated, and therefore are not represented in this audit.

I found the components compliant.

ATTACHMENT D

PHASE 1 12" COATINGS PEEL TEST REPORT AUDIT

				RANDOM #	WELD #	LOT #	P/F	
NUMBER OF RECORDS	38							
PERCENT OF SAMPLE			TOTAL					
AUDIT NUMBERS	13.00		#AUDITED	4	570	15B1533	P	
			RANDOM	9	991	16B553	P	
				10	989	16B553	P	
								8/19/16 FAILURES ON 13 BATCH AND ON 14 BATCH NUMBERS
				18	1337	13B1981	F	
				20	1355	13B319	F	
				23	4663	16B564	P	
				33	6061	16B550	P	
				34	6060	16B550	P	
				35	5069	16B550	P	
				36	6058	16B554	P	
				37	6057	16B554	P	
				40	6065	15B550	P	
				42	6052	16B550	P	

AUDIT NOTES: I selected a sampling of 2016 records based on statistical sampling protocals, and utilizing a random number generator, I determined which records to audit. Row E line 3-15 represents the cell number being audited (VGS numbers are sequential. Row F 3-15 are the weld numbers for the Canusa sleeves and Row G 3-15 are the lot numbers of the Canusa sleeves.

Two records audited indicated failure on the Canusa shrink sleeve adhesion test. The company launched an investigation and defective batch numbers were identified. Field applied coatings are identifiable by joint number, and to date over 200 shrink wrap sleeves have been replaced. The investigation is ongoing as of the date of this audit.

All records in this audit were found compliant. Peel test failure were recorded and and an investigation was conducted.

ATTACHMENT D

PHASE 1 12" SEGMENTABLE FITTING AUDIT

				RANDOM #	HEAT #	12" WPHY 65 .350 WT	
NUMBER OF RECORDS	105						
PERCENT OF SAMPLE			TOTAL				
AUDIT NUMBERS	25.00		#AUDITED	204	GCZY		
			RANDOM	210	RGZZ		
				211	RGZZ		
				225	RHBK		
				229	RHBO		
				231	RHBO		
				235	RHBS		
				240	RHBS		
				241	RHBL		
				251	RHBV		
				257	RHBP		
				264	RHBT		
				269	RHBT		
				274	RHBT		
				278	RHBR		
				279	RHBM		
				285	RHBR		
				293	RHBM		
				301	RHBU		

AUDIT NOTES: I selected a sampling of 2016 records based on statistical sampling protocals, and utilizing a random number generator, determined which records to audit. Row E line 3-21 represents the cell number being audited (VGS numbers are sequential, and are preceded by letters ANGP). Row F 3-21 are the heat numbers for the MTRs that were audited.

All records in this audit were found compliant.

ATTACHMENT E

ARNGP 2016 RADIOGRAPHERS

NAME	RIG	QUALIFICATION EXPIRATION DATE	AUDIT DATE
Richard Clark	A	UT 1/8/17, RT LEVEL 2 12/2/17, MT LEVEL 2 9/15/18, PT 12/16/18, VT LEVEL 3 12/8/20	6/16/2016
Wayne Smith	D	MT 3/17/18, RT LEVEL 2 3/17/18, VT 3/17/18	8/1/2017
Jason Pohlman	B	RT LEVEL 2 2/4/18, PT LEVEL 2 2/5/18, MT LEVEL 2 2/6/18	6/16/2016
Hermes Franco	E	MT LEVEL 2 2/6/17, PT LEVEL 2 2/6/17, RT LEVEL 2 2/6/17, UT LEVEL2 2/6/17, VT LEVEL 2 2/6/17	8/1/2016
Kevin Palys	C	RT LEVEL 2 2/6/18, PT LEVEL 2 2/6/18,MT LEVEL 2 2/6/18, UT LEVEL 2 2/6/18, VT LEVEL 2 2/6/18	8/1/2016
Vance Webster	F	MT LEVEL 2 7/22/17, PT LEVEL 2 7/22/17, RT LEVEL 2 7/22/17, UT LEVEL 2 7/22/17, VT LEVEL 2 7/22/17	8/1/2016
Wesley Worthington	G	UT 10/27/18, VT LEVEL 2 10/27/18, RT LEVEL 2 10/27/18, MT LEVEL 2 10/27/18, PT LEVEL 2 10/27/18	9/16/2016
Arthur Terrazas	mill defect	MT LEVEL 2 1/8/17, PT LEVEL 2 1/8/17, RT LEVEL 2 1/18/17, UT LEVEL 2 1/19/18, VT LEVEL 2 1/19/18	8/1/2017

Attach F

INSPECTION STAFF AND QUALIFICATIONS

AUDIT	EMPLOYEE	DISCIPLINE	CERTIFICATIONS	CRITERIA	OP QUAL
6/27/16	John E Allsbrooks Jr	WELDING, HDD	AWS #13061281 exp 6/1/19	Resume review, Professional certifications, Veriforce op qual tasks	Veriforce 202, 203, 903, 910, VTG-i321, VTG-i322
6/27/16	Darrel J Crandall	CHIEF INSPECTOR	AWS CWI # 04061011 exp 6/1/19	Resume review, Professional certifications, Veriforce op qual tasks	Veriforce 202, 203, Veriforce 216, i321, i322, 404, 426, 427, 480, 482, 484, 501 ,607, 619, 900, 901, 902, 203, 904, 905, 910, VGS -102.2, VTG- i321, VTG - i322
6/27/16	Gary Gerlache	UTILITY INSPECTOR, COATING		Resume review, Professional certifications, Veriforce op qual tasks	
6/27/16	Jamie Gunn	WELDING, COATING	AWS CWI #11060301 EXP 6/1/17, AWS CRI #1108003N, NACE Level 1 exp 6/30/2018	Resume review, Professional certifications, Veriforce op qual tasks	Veriforce 202, 203, i321, i322, 404, 426, 427, 480, 482, 484, 501, 910
6/27/16	John Gunn	WELDING INSPECTOR	AWS CWI #08020271, API 1169 #58226 exp 4/30/18	Resume review, Professional certifications, Veriforce op qual tasks	Veriforce 202, 203, i321, i322, 404, 426, 480, 482, 484, 501,
6/27/16	Michael Hallum	UTILITY INSPECTOR		Resume review, Professional certifications, Veriforce op qual tasks	Veriforce i321, i322, 404, 426, 427, 480, 482, 484, 501, 607, 900, 901, 902
6/27/16	Doug Love	CHIEF WELDING INSPECTOR	AWS CWI #04060061, AWS CRI #1305001N exp 5/1/19	Resume review, Professional certifications, Veriforce op qual tasks	Veriforce 202, 203

INSPECTION STAFF AND QUALIFICATIONS

6/27/16	Tom Modeen	UTILITY INSPECTOR		Resume review, Professional certifications, Veriforce op qual tasks	Veriforce i321, i322, 404, 426, 427, 480, 482, 484, 501, 607, 619, 900, 901, 902, 904, 905, 908, 910
6/27/16	Scott Morrison	WELDING, COATING	CPWI # 63726018, NACE #39700 exp 10/31/17	Resume review, Professional certifications, Veriforce op qual tasks	Veriforce i321, i322, 202, 203, 404, 426, 427, 501, 9 480, 482, 484, 901, 903, 904, 905, 910, i321,
6/29/16	Clint Music	UTILITY INSPECTOR		Resume review, Professional certifications, Veriforce op qual tasks	Veriforce 216, i321, i322, 404, 426, 427, 480, 482, 484, 501 ,607, 619, 900, 904, 905, 910, VGS -102.2, VTG- i321, VTG - i322
6/29/16	Mike Ray	HDD INSPECTOR			Veriforce 216, 404, 426, 427, 480, 482, 484, 501 ,607, 619, 900, 903, 904, 905, 910, VGS -102.2, VTG- i321, VTG - i322

Attachment 1

INSPECTION STAFF AND QUALIFICATIONS

6/29/16	Joseph Ryan Schaefer	Chief Coating Inspector	CPWI # 63765292, exp 1/17/17 NACE LEVEL 2 #16841 exp 11/30/16	Resume review, Professional certifications, Veriforce op qual tasks	Veriforce 202, 203, 216, i321, i322, 404, 426, 427, 480, 482, 484, 501 ,607, 619, 900, 903, 904, 905, 910, VGS -102.2, VTG- i321, VTG - i322
6/29/16	Stephen Taylor	UTILITY INSPECTOR			Veriforce 216, 404, 426, 427, 480; 482, 484, 501 ,607, 619, 900, 904, 905, 910, VGS -102.2, VTG- i321, VTG - i322
6/29/16	Martin Wiser	WELDING INSPECTOR	AWS CWI #08031021 exp 3/1/17, NACE LEVEL 1 COATING #37121 exp 1/31/18		Veriforce 202, 203, 216, i321, i322,426, 427, 480, 482, 484, 501 ,607, 619, 900,902, 903, 904, 905, 908, 910, VTG- i321, VTG - i322

ATTACHMENT G

QUALIFIED WELDERS

AUDIT	EMPLOYEE	PROCEDURE	QUALIFICATION DATE
9/16/16	Russ Shurpit-A	WPS-VGS-XG S-1 2014-2	5/26/2016
9/16/16	Russ Shurplt-A	WPS-VGS-XGS-2:2014-2	5/26/2016
9/16/16	Brad Smith-B	WPS-VGS-X65 1 2014-2	5/26/2016
9/16/16	Brad Smlth-B	WPS-VGS-XGS-2:2014-2	5/26/2016
9/16/16	Jan Slater-C	W PS-VGS-XGS 1:2014-2	5/31/2016
9/16/16	Jan Slater-C	W PS-VGS-X65-2:2014-2	5/31/2016
9/16/16	Arnell Malnar-D	W PS-VGS-X65-1:2014-2	5/31/2016
9/16/16	Amell Malnar D	W PS-VGS-X65-2: 2014-2	5/31/2016
9/16/16	Brian Foster- E	W PS VGS-X65 1 2014-2	6/1/2016
9/16/16	Brian Foster-E	W PS-VGS-XGS-2:2014-2	6/1/2016
9/16/16	Michael Fisher-F	WPS VGS-XGS-1:2014-2	6/1/2016
9/16/16	Michael Fisher-F	W PS VGS-XGS 2:2014-2	6/1/2016
9/16/16	Chuck Nobel-G	W PS-VGS-X65-1:2014-2	6/1/2016
9/16/16	Chuck Nobel-G	WPS-VGS-XGS-2:2014-2	6/1/2016
9/16/16	Brian Jollotta-H	W PS-VGS-XGS-1:2014-2	6/17/2016
9/16/16	Brian Jollotta-H	W PS-VGS-X65-2:2014-2	6/17/2016
9/16/16	Troy D Glaze-J	WPS-VGS-X65 1:2014-2	6/18/2016
9/16/16	Troy D Glaze-J	WPS-VGS-X65-2:2014-2	6/18/2016
9/16/16	David Farmer-K	WPS-VGS -XGS-1:2014-2	6/18/2016
9/16/16	David Farmer-K	WPS-VGS-X65-2:2014-2	6/18/2016
9/16/16	Dale Townsend-L	WPS-VGS-X65 1 2014-2	6/18/2016
9/16/16	Dale Townsend-L	WPS-VGS-X65-2:2014-2	6/18/2016
9/16/16	Jeff W hitmore-M	WPS-VGS-X65-1:2014-2	8/9/2016
9/16/16	Jeff Whitmore-M	WPS-VGS-X65-2:2014-2	8/9/2016