



**Public Utilities Commission
Pipeline Safety Construction Inspection**

Operator's Information	
Operator's Headquarters:	IOCS ID#
Address:	
City:	State/Zip:
Executive Officer:	Title: VP Compliance & Standards
Phone:	Fax:
Emergency Telephone:	E-Mail:

Inspection Unit Information		
Unit Name:		
Address:		
City:	State/Zip:	
Audit Contact:	Title:	
Phone:	Fax:	
Emergency Telephone :	Unit Record ID#:	Inspection Record ID#:

Inspection		
OPS Representative: Boice Hillmer	Start Date:	End Date:
Project#:	Report: <input type="checkbox"/> Initial <input type="checkbox"/> Mid <input checked="" type="checkbox"/> Final	
Description of system: 12 inch steel installation		
Persons Interviewed	Title	Phone Number
Don Freitag	Operations Supervisor	
Doug Parham	Inspector	

Summary: Project consists of replacing bare steel, ductile iron and cast iron with 12 inch steel along 19th Street in Sioux Falls, SD.

Findings: No violations were observed.

Observations included welding, tape coating, and trench excavation.

S= Satisfactory U=Unsatisfactory N/A= Not Applicable N/O = Not observed

Code Section	Description	S	U	N/A	N/O
§192.59	Plastic Pipe	S	U	N/A	N/O
(a)(1)	Manufactured in accordance with a listed specification				
§192.63		S	U	N/A	N/O
(a)	Are pipe, valves, and fittings Properly marked for identification in accordance with ASTM D 2513?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)	Are items marked by die stamping blunt or rounded edges?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)	Were Pipe valves and fittings marked with other than field die stamping?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.121	Was the pipeline designed in accordance with this formula $P = \frac{2S}{(SDR - 1)} \cdot 0.32$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.123	Design limitations for plastic pipe.	S	U	N/A	N/O
(a)	Does the design pressure exceed 100 psig?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)(1)	If design pressure does exceed 100 psig is the pressure within 125 psig?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)(2)	If the design pressure is 125 psig is the material of pipe PE 2406 or a PE 3408?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)(3)	If the design pressure is 125 psig is the pipe size 12 inches or less?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.181	Distribution line valves	S	U	N/A	N/O
(c)(1)	Are valves placed in a readily accessible location so as to facilitate its operation in an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)(3)	If valve is installed in a buried box or enclosure, is the box installed as to avoid transmitting loads to the main?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.193	Are valves that are installed designed to protect the plastic from excessive torsional or shearing loads, as well as other secondary stress when the valve is being operated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.273	Valve installation in plastic pipe.	S	U	N/A	N/O
(b)	General: Are joints made in accordance with written procedures that have been proven by test or experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)	Is each joint visually inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Heater temperature maintained? (see operators O&M manual)				
§192.281	Plastic Pipe	S	U	N/A	N/O
	What joining methods are being used? Solvent Cement <input type="checkbox"/> Adhesive <input type="checkbox"/> Heat Fusion <input type="checkbox"/>				
(a)	Are joints given required amount of time to properly set?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)(1)	Are mating surfaces cleaned and dried?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)(1)	Is the operator using the proper equipment when making a butt fusion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Does the equipment compress the heated ends together and hold the pipe in proper alignment while the plastic hardens?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)(2)	Socket fusion joints being joined by a device that heats the surfaces of the joint uniformly and simultaneously to the same temperature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)(3)	Electro fusion joints being joined using the equipment of the fittings manufacturer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If pipe is jointed by other equipment or techniques are the joints tested to the requirements of 192.283(a)(1)(iii)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are these tests equivalent to the equipment and techniques of the fittings manufacturer?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)(1)	Adhesive joints conform to ASTM/ANSI Designation: D2517?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)(2)	Are the materials and adhesive compatible with each other?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)(1)	Mechanical joints; are the gasket material in the coupling compatible with plastic?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)(2)	Is the rigid internal tubular stiffener used in conjunction with the coupling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

§192.285	Qualifying persons to make joints	S	U	N/A	N/O
(a)	Are joints made in accordance with written procedures that have been proven by test or experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(1)	Had training or experience in use of procedure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)(1)	Made specimen joints that were visually inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)(2)(i)	Made specimen joints that were destructively tested?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)	Is the person making the joints re-qualified under an applicable procedure, if during any 12 months period that person does not make any joints under that procedure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Has 3 joints or 3 percent of the joints made, whichever is greater, found to be unacceptable by testing/	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)	Has the operator established a method to determine that each person making plastic joints in their system is qualified under the requirements of 192.285?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Heat Fusion jointer Name: Cert. No.: Expiration Date: Certified by: Date:				
§192.321	Installation of Plastic Pipe	S	U	N/A	N/O
(a)	Is pipe being installed below ground level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)	If buried below ground is the pipe being installed so as to minimize shear or tensile stresses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)	Is thermoplastic pipe that is not encased have a minimum wall thickness of 0.090 inch?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)	Is the pipe that is not encased has an electrically conducting wire or other means of locating?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the tracer wire wrapped around the pipe?				
(f)	If pipe is encased is it inserted into the casing in a manner that will protect the plastic?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g)(1)	If not; is the uncased pipe temporarily installed and does not exceed the manufacturer's recommended maximum periods of exposure or 2 years, whichever is less?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h)	Is the pipe being installed on bridges?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h)(1)	If yes, is the pipe installed with protection from mechanical damage, such as installation in a metallic casing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h)(2)	Protected from ultraviolet radiation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h)(3)	Has not exceeded the pipe temperature limits specified in 192.123.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.325	Underground clearance	S	U	N/A	N/O
(a)	Is each transmission line being installed with at least 12 inches of clearance from any other underground structure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Is each main being installed with enough clearance from any other underground structure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.327	Cover	S	U	N/A	N/O
(a)	Is each transmission line being installed with proper minimum cover?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Is each main being installed with at least 24 inches of cover?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.361	Service Line: Installation	S	U	N/A	N/O
(a)	Depth: Each buried service line installed with at least 12 inches of cover?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Supported and backfilled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.513	Test Requirements for plastic pipelines	S	U	N/A	N/O
(a)	Each segment of pipe is tested in accordance with this section?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Test procedures insure discovery of all potentially hazardous leaks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)	Test pressure is at least 150 percent of the maximum operating pressure or 50 psig, whichever is greater.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)	The temperature of the thermoplastic material, at time of testing, was not more than 100 degree F?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.515	Environmental protection and safety requirements	S	U	N/A	N/O
(a)	Does the operator take every reasonable precaution to protect the general public and all personnel during testing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

§192.515	Environmental protection and safety requirements	S	U	N/A	N/O
(a)	Does the operator take every reasonable precaution to protect the general public and all personnel during testing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Does the operator insure that the test medium is disposed of in a manner that will minimize damage to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.517	Test Records	S	U	N/A	N/O
(a)(1)	Operator's name, name of operator's employee responsible for making the test and the name of any test company used.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(2),(a)(3) & (a)(4)	Test Medium, test pressure and test duration?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(5)	Pressure recording charts or other records of pressure readings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(6)	Elevation variation, whenever significant for the particular test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(7)	Leaks and failures noted and their disposition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.805	Qualification Program	S	U	N/A	N/O
	Refer to record's form for OQ for replacement jobs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

S = Satisfactory

U = Unsatisfactory

N/A = Not Applicable

N/O = Not Observed

Steel		N/A <input type="checkbox"/>			
Code Section	Description				
	MATERIALS SPECIFICATIONS				
§192.55(a)	(a) Qualification of Pipe: Northwest Pipe				
	(b) Manufacturing Standard & Grade: API 5L X42/X52				
	(c) OD: 12.75 inches				
	(d) Wall thickness: 0.219 inches				
	(e) Wt. #/ft: 29.34 lbs/ft				
	(f) type Longitudinal Weld: ERW				
	(g) SMYS:				
	(h) Joint Design Bevel:				
	(i) Internal Coating: none				
	(j) Min. joint length:				
	(k) total footage or miles:				
		S	U	N/A	N/O
§192.55	Steel Pipe				
(b)	Does the steel pipe meet one of the API or ASTM Listed Specifications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.63	Marking of materials				
(a)	Are pipe, valves, and fittings properly marked for identification?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)	Were pipe valves and fittings marked with other than field die stamping?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		S	U	N/A	N/O
	PIPE DESIGN	S	U	N/A	N/O
§192.105	Design formula for steel pipe.	S	U	N/A	N/O
(a)	Was the pipeline designed in accordance with this formula: $P = \frac{2St}{D} FET$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.113	Longitudinal joint factor (E) for steel pipe	S	U	N/A	N/O
	Is the longitudinal joint factor (E) for steel pipe equal to 1 (See table)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.115	Temperature derating factor (T) for steel pipe.	S	U	N/A	N/O
	Is the temperature derating factor (T) for steel pipe equal to 1 (See table)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.145	Valves	S	U	N/A	N/O
(a)	Does each valve meet the minimum requirements, or the equivalent, of API 6D or national or international standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.147	Flanges and flange accessories	S	U	N/A	N/O
(a)	Does each flange or flange accessory meet the minimum requirements of ASME/ANSI B16.5, MSS SP44, or ASME/ANSI B16.24, or equivalent?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.149	Standard Fittings	S	U	N/A	N/O
(b)	Are steel butt welded fittings rated at or above the pressure and temperature as the pipe?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.159	Flexibility	S	U	N/A	N/O
	Is the pipeline designed with enough flexibility to prevent thermal expansion or contraction from causing excessive stresses in the pipe or component?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.161	Supports and anchors	S	U	N/A	N/O
(d)	For a pipeline to operate at 50% SMYS, are structural supports not welded directly to the pipe, but to a member that completely encircles the pipe?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

WELDING AND WELD DEFECT REPAIR/REMOVAL REQUIREMENTS		S	U	N/A	N/O
§192.225	Welding Procedures	S	U	N/A	N/O
(a)	Are welding procedures qualified under Section 5 of API 1104 (19 th ed. 1999, 10/31/01 errata) or Section IX of ASME Boiler and Pressure Code (2001 ed.) by destructive test?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Are welding procedures recorded in detail, including results of the qualifying tests?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.227	Qualification of welders	S	U	N/A	N/O
(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)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Welders may be qualified under section I of Appendix C to weld on lines that operate at < 20% SMYS.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.231	Protection from Weather	S	U	N/A	N/O
	Is the welding operation protected from the weather conditions that could impair the quality of the completed weld?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.233	Miter Joints	S	U	N/A	N/O
	Miter joints (consider pipe alignment)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.235	Preparation for welding	S	U	N/A	N/O
	Are welding surfaces clean, free of foreign material, and aligned in accordance with the qualified welding procedure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.245	Repair and Removal of Weld Defects	S	U	N/A	N/O
(a)	Are cracks longer than 8% of the weld length removed? For each weld that is repaired, is the defect removed down to clean metal and is the pipe preheated if conditions demand it?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Are the repairs inspected to insure acceptability? If additional repairs are required, are they done in accordance with qualified written welding procedures to assure minimum mechanical properties are met?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

WELD INSPECTIONS and NONDESTRUCTIVE TESTING REQUIREMENTS		S	U	N/A	N/O
§192.241	Inspection and test of welds	S	U	N/A	N/O
	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.243	Nondestructive testing	S	U	N/A	N/O
(a)	Is a detailed written NDT procedure established and qualified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Are there records to qualify procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
©	Is the radiographer trained and qualified? (Level II or better)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)	Are the following percentages of each days field butt welds nondestructively tested:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)(1)	10% in Class 1 locations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)(2)	15% in Class 2 locations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)(3)	100% in Class 3 and 4 locations, river crossings, within railroad or public highway ROW's, tunnels, bridges, overhead road crossings: however, if impracticable may test not less than 90%.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)(4)	100% at pipeline tie-ins.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)	Is a sample of each welder's work for each day nondestructively tested? (see code for exceptions)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f)	Do the radiograph records and daily reports show:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Number of welds made.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Number of welds tested.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Number of welds rejected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Disposition of rejected welds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is there a correlation of welds and radiographs to a bench mark? (Engineering station or survey marker)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONSTRUCTION REQUIREMENTS		S	U	N/A	N/O
§192.303	Compliance with specifications or standards	S	U	N/A	N/O
	Are comprehensive written construction specifications available and adhered to?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.305	Inspection: General	S	U	N/A	N/O
	Are inspections performed to check adherence to the construction specifications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.307	Inspection of materials	S	U	N/A	N/O
	Is material being visually inspected at the site of installation to ensure against damage that could impair its serviceability?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.309	Repair of steel pipe	S	U	N/A	N/O
(a)	Are any defects or damage that impairs the serviceability of a length of steel pipe such as a gouge, dent, groove, or are burn repaired or removed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.313	Bends and elbows	S	U	N/A	N/O
(b)	If a circumferential weld is permanently deformed during bending, is the weld nondestructively tested?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.319	Installation of pipe in a ditch				
(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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.461	External corrosion control: Protective coating	S	U	N/A	N/O
(c)	Is the external protection coating inspected (by jeeping, etc.) prior to lowering the pipe into the ditch?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.325	Underground clearance	S	U	N/A	N/O
(a)	Is there 12 inches clearance between the pipeline and any other underground structure? If 12 inches cannot be attained, are adquate provisions made to protect the pipeline from damage that could result from the proximity of the other structure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.327	Cover	S	U	N/A	N/O
(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 ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is pipe in Class 2, 3, and 4 locations, drainage ditches or public roads and railroad crossings, installed with 36 inches of cover in normal soil or 24 inches of cover in consolidated rock ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Does pipe installed in a river or harbor have 48 inches of cover in soil or 24 inches of cover in consolidated rock ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If the above cover cannot be attained, is additional protection provided to withstand anticipated external loads?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CORROSION REQUIREMENTS		S	U	N/A	N/O
§192.455	External corrosion control: buried or submerged pipelines installed after July 31, 1971.	S	U	N/A	N/O
(a)(1)	Does the pipeline have an effective external coating and does it meet the coating specifications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(2)	Is a cathodic protection system installed or being provided for? (refer, ADB note below)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.471	External corrosion control: Test stations	S	U	N/A	N/O
(a)	Are test leads mechanically secure and electrically conductive?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Are test leads attached to the pipe by cadwelding or other process so as to minimize stress concentration on the pipe?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
©	Are bare test lead and the connection to the pipe coated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TESTING REQUIREMENTS		S	U	N/A	N/O
§192.503	General requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(1)	Is a hydrostatic pressure test planned to substantiate the MAOP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(2)	If the pipeline has been hydrostatically tested, have all potentially hazardous leaks been located and eliminated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.505	Strength test requirements for steel pipeline to operate at a hoop stress of 30 percent or more of SMYS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)	Is there a specified hydrostatic pressure testing procedure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the specified test pressure equal to 1.25 x MAOP for Class 1 and 2 locations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)	For pipelines which operate at 30% or more of SMYS , is the minimum test duration for the pipeline at least 8 hours ? (Strength Test)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)	Is the minimum test duration for pretested fabricated units and short sections of pipe at least 4 hours ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.515	Environmental protection and safety requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)	Does the operator take every reasonable precaution to protect the general public and all personnel during the test?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Does the operator insure that the test medium is disposed of in a manner that will minimize damage to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.517	Records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)	Do the test records include the following:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(1)	Operator's name, name of operator's employee responsible for making the test, and the name of the test company used.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(2)	Test Medium used:			<input type="checkbox"/>	<input type="checkbox"/>
(a)(3)	Test pressure:			<input type="checkbox"/>	<input type="checkbox"/>
(a)(4)	Test duration:			<input type="checkbox"/>	<input type="checkbox"/>
(a)(5)	Pressure recording charts, or other record of pressure readings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(6)	Elevation variations, whenever significant for the particular test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(7)	Leaks and failures noted and their disposition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

OPERATOR QUALIFICATION FIELD VERIFICATION					
§192.801 - §192.809	Operator Qualification – Use PHMSA Form 15 Operator Qualification Field Inspection Protocol Form if applicable to the project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DESIGN OF COMPRESSOR STATION		S	U	N/A	N/O
§192.163	Compressor stations: Design and Construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)	Is each compressor building located on property under the control of the operator?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the distance to adjacent property far enough to prevent the spread of fire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is there enough space around compressor buildings to allow free movement of fire fighting equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Are buildings constructed with non-combustible material?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)	Are there two separate and unobstructed exits on each operating floor of each compressor building?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)	Does each fence around a compressor station have at least two gates?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)	Is electrical equipment and wiring installed per ANSI/NFPA 70?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.165	Compressor stations: Liquid removal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)	Are compressors protected from liquids?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are liquid separators manufactured in accordance with Section VIII of the ASME Boiler and Pressure Vessel Code to a design factor less than or equal to 0.4 if constructed of pipe and fittings with no internal welding?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

§192.167	Compressor stations: Emergency shutdown	S	U	N/A	N/O
(a)	Does the compressor station have an emergency shutdown system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(1)	Is the ESD able to isolate station and blowdown station piping?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(2)	Is discharge of gas from the blowdown piping at a location where the gas will not create a hazard?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(3)	Will ESD shutdown compressor, gas fired equipment and electrical facilities (except emergency lighting and circuits needed to protect equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a)(4)	Are there at least two ESD stations outside gas area near exits gates or emergency exits?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.169	Compressor stations: Pressure limiting devices	S	U	N/A	N/O
(a)	Does compressor station have overpressure protection devices of sufficient capacity to prevent pressure greater than 110% MAOP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Do relief valves vent in safe location?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.171	Compressor stations: Additional safety equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)	Are there slots or holes in baffles of gas engine mufflers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.173	Compressor stations: Ventilation				
	Are buildings ventilated to prevent the accumulation of gas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.735	Compressor stations: Storage of combustible materials	S	U	N/A	N/O
(b)	Are aboveground oil or gasoline storage tanks protected per NFPA No. 30" (Dikes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§192.736	Compressor stations: Gas detection	S	U	N/A	N/O
(a)	Does the compressor building have a fixed gas detection and alarm system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

STANDARDS OF ACCEPTABILITY PER SEC. 6, API STD. 1104		
Type	Individual Length	Length Cumulative in 12 inches
Inadequate Penetration (weld root)	1"	1"
Inadequate Penetration (due to high low)	2"	3"
Incomplete Fusion (root or top of joint)	1"	1"
Incomplete Fusion (due to cold lap)	2"	2"
BurnThrough	¼"	½"
Elongated Slag Inclusions (wagon tracks)	1/16" Width 2" Length	2"
Isolated Slag Inclusions	1/8" Width ½" Length	4 or less 1/8" Wide
Porosity (spherical)	1/8"	25% of w.t.
Porosity (cluster)	½" diameter area 1/16" (Individual)	½"
Porosity (worn hole)	1/18"	25% of w.t.
Porosity (hollow bead)	½"	2"
Cracks	5/32" or less	5/32" or less
Under cutting (internal)	2" Length unless depth is visually determined by use of a depth measuring device on all under cutting along the entire circumference of the weld.	2"



**Public Utilities Commission
Pipeline Safety Construction Inspection**

Weather Conditions: Temperature: 65 degrees Wind Speed 3 mph Precipitation none

Operator Qualification Page

NAME OF INDIVIDUAL	COVERED TASK DESCRIPTION	DATE QUALIFIED	If not qualified, provide name of person providing direct supervision.

Comments:

Sketch of Work Area Location: