South Dakota Public Utilities Commission
Pipeline Safety Construction Inspection

Operator's Information		
Operator's Headquarters:		IOCS ID#
Address:		
City:		State/Zip:
Executive Officer:		Title:
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:	Start Date:	End Date:
Project#:	Report: ☐ Initial ☐ Mid ☐ Final	
Description of system:		
Persons Interviewed	Title	Phone Number

Summary:

Findings:

Which of the following sections apply to this project?

- ☐ General Construction (pg. 2)
- ☐ Service Installation (pg. 3-5)
- ☐ Plastic Pipe Installation (pg. 6-7)
- ☐ Steel Pipe Installation (pg. 8-11)
- ☐ Compressor Station (pg. 13)
- ☐ Operator Qualification (pg. 14)

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

General Construction Requirements

Code Section	Description	S	U	N/A	N/O
§192.303	**Compliance with specifications or standards** Are comprehensive written construction specifications available and adhered to?				
§192.305	**Inspection: General** Are inspections performed to check adherence to the construction specifications?				
§192.307	**Inspection of materials** Is material being visually inspected at the site of installation to ensure against damage that could impair its serviceability?				
§192.319	**Installation of pipe in a ditch**	**S**	**U**	**N/A**	**N/O**
	(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?				
	(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?				
§192.325 (a)	**Underground clearance** Is there **12 inches** clearance between the pipeline and any other underground structure? If **12 inches** cannot be attained, are adquaate provisions made to protect the pipeline from damage that could result from the proximity of the other structure?				
§192.327(a)	**Cover**	**S**	**U**	**N/A**	**N/O**
	Is pipe in a **Class 1** location installed with **30 inches** of cover in **normal soil**, or **24 inches** of cover in **consolidated rock**?				
	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**?				
	Does pipe installed in a river or harbor have **48 inches** of cover in **soil** or **24 inches** of cover in **consolidated rock**?				
	If the above cover cannot be attained, is additional protection provided to withstand anticipated external loads?				
§192.629(a)	When a pipeline is being purged of air by use of gas, the gas must be released into one end of the line in a moderately rapid and continuous flow. If gas cannot be supplied in sufficient quantity to prevent the formation of a hazardous mixture of gas and air, a slug of inert gas must be released into the line before the gas.				
§192.629(b)	When a pipeline is being purged of gas by use of air, the air must be released into one end of the line in a moderately rapid and continuous flow. If air cannot be supplied in sufficient quantity to prevent the formation of a hazardous mixture of gas and air, a slug of inert gas must be released into the line before the air.				
§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?				
(c)(3)	If valve is installed in a buried box or enclosure, is the box installed as to avoid transmitting loads to the main?				
§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?				
§192.193	(Beginning Oct. 1, 2015) Is the construction task being inspected by someone other than who is doing the work?				
§192.727(b)	Is each pipeline that is abandoned in place, disconnected from all sources and supplies of gas, purged of gas, and sealed at both ends?				
§192.727(c)	Is each inactive pipeline (except service lines) that is not being maintained, disconnected from all sources and supplies of gas, purged of gas, and sealed at both ends?				
§192.727(d)(1)(2)(3)	When discontinuing service to a customer, does the operator lock or take other means to prevent a valve from being opened by unauthorized persons, or use other means?				
§192.727(e)	If air is used for purging, the operator shall ensure that a combustible				

	mixture is not present after purging.				
§192.805	**Qualification Program** Refer to record's form for OQ information for all tasks being performed.				

Service Installation N/A ☐

Code Section	Description	S	U	N/A	N/O
§192.353(a)	Meter and Service Regulator installed in accessible location and protected from corrosion and other damage				
§192.353(b)	Each Service Regulator installed within a building must be located as near as practical to the point of service line entrance.				
§192.353(c)	Each meter installed within a building must be located in a ventilated place and not less than 3 feet from any source of ignition or any source of heat which might damage the meter.				
§192.353(d)	Where feasible, the upstream regulator in a series must be located outside the building unless it is located in a separate metering or regulating building.				
§192.355(a)	If the customer's equipment might create either a vacuum or a back pressure, a device must be installed to protect the system.				
§192.355(b)	Service regulator vents and relief vents. Service regulator vents and relief vents must terminate outdoors, and the outdoor terminal must:	S	U	N/A	N/O
	(1) Be rain and insect resistant;				
	(2) Be located at a place where gas from the vent can escape freely into the atmosphere and away from any opening into the building; and,				
	(3) Be protected from damage caused by submergence in areas where flooding may occur.				
§192.355(c)	Pits and vaults. Each pit or vault that houses a customer meter or regulator at a place where vehicular traffic is anticipated, must be able to support that traffic.				
§192.357(a)	Each meter and each regulator must be installed so as to minimize anticipated stresses upon the connecting piping and the meter.				
§192.357(b)	When close all-thread nipples are used, the wall thickness remaining after the threads are cut must meet the minimum wall thickness requirements of this part.				
§192.357(c)	Connections made of lead or other easily damaged material may not be used in the installation of meters or regulators.				
§192.357(d)	Each regulator that might release gas in its operation must be vented to the outside atmosphere.				
§192.359(a)	A meter may not be used at a pressure that is more than 67 percent of the manufacturer's shell test pressure.				
§192.359(b)	Each newly installed meter manufactured after November 12, 1970, must have been tested to a minimum of 10 p.s.i. (69 kPa) gage.				
§192.359(c)	A rebuilt or repaired tinned steel case meter may not be used at a pressure that is more than 50 percent of the pressure used to test the meter after rebuilding or repairing.				
§192.361(a)	Depth. Each buried service line must be installed with at least 12 inches (305 millimeters) of cover in private property and at least 18 inches (457 millimeters) of cover in streets and roads. However, where an underground structure prevents installation at those depths, the service line must be able to withstand any anticipated external load.				
§192.361(b)	Support and backfill. Each service line must be properly supported on undisturbed or well-compacted soil, and material used for backfill must be free of materials that could damage the pipe or its coating.				
§192.361(c)	Grading for drainage. Where condensate in the gas might cause interruption in the gas supply to the customer, the service line must be graded so as to drain into the main or into drips at the low points in the service line.				
§192.361(d)	Protection against piping strain and external loading. Each service line must be installed so as to minimize anticipated piping strain and external loading.				
§192.361(e)	Installation of service lines into buildings. Each underground service line installed below grade through the outer foundation wall of a building must:	S	U	N/A	N/O
	(1) In the case of a metal service line, be protected against corrosion;				
	(2) In the case of a plastic service line, be protected from shearing action and backfill settlement; and				
	(3) Be sealed at the foundation wall to prevent leakage into the building.				

§192.361(f)	Installation of service lines under buildings. Where an underground service line is installed under a building:	**S**	**U**	**N/A**	**N/O**
	(1) It must be encased in a gas-tight conduit;				
	(2) The conduit and the service line must, if the service line supplies the building it underlies, extend into a normally usable and accessible part of the building; and,				
	(3) The space between the conduit and the service line must be sealed to prevent gas leakage into the building and, if the conduit is sealed at both ends, a vent line from the annular space must extend to a point where gas would not be a hazard, and extend above grade, terminating in a rain and insect resistant fitting.				
§192.361(g)	Locating underground service lines. Each underground nonmetallic service line that is not encased must have a means of locating the pipe that complies with §192.321(e).				
§192.363(a)	Each service line must have a service-line valve meeting the applicable requirements of Subparts B and D of this part. A valve in a meter bar, that allows the meter to be bypassed, may not be used as a service-line valve.				
§192.363(b)	A soft seat service line valve may not be used if its ability to control the flow of gas could be adversely affected by exposure to anticipated heat.				
§192.363(c)	Each service-line valve on a high-pressure service line, installed aboveground or in an area where the blowing of gas would be hazardous, must be designed and constructed to minimize the possibility of the removal of the core of the valve with other than specialized tools.				
§192.365(a)	Relation to regulator or meter. Each service-line valve must be installed upstream of the regulator or, if there is no regulator, upstream of the meter.				
§192.365(b)	Outside valves. Each service line must have a shutoff valve in a readily accessible location that, if feasible, is outside of the building.				
§192.365(c)	Underground valves. Each underground service-line valve must be located in a covered durable curb box or standpipe that allows ready operation of the valve and is supported independently of the service lines.				
§192.367(a)	Location. Each service line connection to a main must be located at the top of the main or, if that is not practical, at the side of the main, unless a suitable protective device is installed to minimize the possibility of dust and moisture being carried from the main into the service line.				
§192.367(b)	Compression-type connection to main. Each compression-type service line to main connection must:	**S**	**U**	**N/A**	**N/O**
	(1) Be designed and installed to effectively sustain the longitudinal pullout or thrust forces caused by contraction or expansion of the piping, or by anticipated external or internal loading; and				
	(2) If gaskets are used in connecting the service line to the main connection fitting, have gaskets that are compatible with the kind of gas in the system.				
§192.369(a)	Each service line connected to a cast iron or ductile iron main must be connected by a mechanical clamp, by drilling and tapping the main, or by another method meeting the requirements of §192.273.				
§192.369(b)	If a threaded tap is being inserted, the requirements of §192.151(b) and (c) must also be met.				
§192.371	Each steel service line to be operated at less than 100 p.s.i. (689 kPa) gage must be constructed of pipe designed for a minimum of 100 p.s.i. (689 kPa) gage.				
§192.375(a)	Each plastic service line outside a building must be installed below ground level, except that (1) It may be installed in accordance with §192.321(g); and (2) A plastic service line may terminate above ground level and outside the building, if- (i) The above ground level part of the plastic service line is protected against deterioration and external damage; and (ii) The plastic service line is not used to support external loads.				
§192.379	Each service line that is not placed in service upon completion of installation must comply with one of the following until the customer is supplied with gas: (a)The valve that is closed to prevent the flow of gas to the customer must be provided with a locking device or other means designed to prevent the opening of the valve by persons other than those authorized by the operator.				

	(b) A mechanical device or fitting that will prevent the flow of gas must be installed in the service line or in the meter assembly. (c) The customer's piping must be physically disconnected from the gas supply and the open pipe ends sealed.				
§192.381(c)	An operator must mark or otherwise identify the presence of an excess flow valve on the service line.				
§192.381(d)	An operator shall locate an excess flow valve as near as practical to the fitting connecting the service line to its source of gas supply.				
§192.381(e)	An operator should not install an excess flow valve on a service line where the operator has prior experience with contaminants in the gas stream, where these contaminants could be expected to cause the excess flow valve to malfunction or where the excess flow valve would interfere with necessary operation and maintenance activities on the service, such as blowing liquids from the line.				
§192.511	**Test Requirements for Service Lines**	**S**	**U**	**N/A**	**N/O**
	(a) Each segment of a service line (other than plastic) must be leak tested in accordance with this section before being placed in service. If feasible, the service-line connection to the main must be included in the test; if not feasible, it must be given a leakage test at the operating pressure when placed in service. (b) Each segment of a service line (other than plastic) intended to be operated at a pressure of at least 1 p.s.i. (6.9 kPa) gage but not more than 40 p.s.i. (276 kPa) gage must be given a leak test at a pressure of not less than 50 p.s.i. (345 kPa) gage (c) Each segment of a service line (other than plastic) intended to be operated at pressures of more than 40 p.s.i. (276 kPa) gage must be tested to at least 90 p.s.i. (621 kPa) gage, except that each segment of the steel service line stressed to 20 percent or more of SMYS must be tested in accordance with §192.507 of this subpart.				

Plastic Pipe Installation N/A ☐

Code Section	Description	S	U	N/A	N/O
§192.59(a)	Manufactured in accordance with a listed specification.				
	Marking of Materials	**S**	**U**	**N/A**	**N/O**
§192.63 (a)	Are pipe, valves, and fittings Properly marked for identification in accordance with ASTM D 2513?				
§192.63 (c)	Are items marked by die stamping blunt or rounded edges?				
	Were Pipe valves and fittings marked with other than field die stamping?				
§192.121	Was the pipeline designed in accordance with this formula $P = \frac{2S}{(SDR-1)}0.32$				
§192.123	**Design limitations for plastic pipe.**	**S**	**U**	**N/A**	**N/O**
	(a)Does the design pressure exceed 100 psig?				
	(e)(1) If design pressure does exceed 100 psig is the pressure within 125 psig?				
	(e)(2)If the design pressure is 125 psig is the material of pipe PE 2406 or a PE 3408?				
	(e)(3)If the design pressure is 125 psig is the pipe size 12 inches or less?				
§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?				
	(c)Is each joint visually inspected?				
	Heater temperature maintained? (see operators O&M manual)				
§192.281	**Plastic Pipe Joining**	**S**	**U**	**N/A**	**N/O**
	What joining methods are being used?				
	(a) Are joints given required amount of time to properly set?				
	(c)(1)Is the operator using the proper equipment when making a butt fusion?				
	Does the equipment compress the heated ends together and hold the pipe in proper alignment while the plastic hardens?				
	(c)(2)Socket fusion jonts being joined by a device that heats the surfaces of the joint uniformly and simultaneously to the same temperature?				
	(c)(3)Electro fusion joints being joined using the equipment of the fittings manufacturer. If pipe is jointed by other equipment or techniques are the joints tested to the requirements of 192.283(a)(1)(iii)?				
§192.281	Are these tests equivalent to the equipment and techniques of the fittings manufacturer?				
	(e)(1) Mechanical joints; are the gasket material in the coupling compatible with plastic?				
	(e)(2) Is the rigid internal tubular stiffener used in conjunction with the coupling?				
§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?				
	(a)(1) Had training or experience in use of procedure?				
	(b)(1) Made specimen joints that were visually inspected?				
	(b)2)(i) Made specimen joints that were destructively tested?				
	(c)(1) 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?				
	(c)(2) Has 3 joints or 3 percent of the joints made, whichever is greater, found to be unacceptable by testing/				
	(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?				
	Heat Fusion Joiner 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?				
	(c) If buried below ground is the pipe being installed so as to minimize shear or tensile stresses?				
	(d) Is thermoplastic pipe that is not encased have a minimum wall thickness of 0.090 inch?				
	(e) Is the pipe that is not encased has an electrically conducting wire or other means of locating?				
	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?				
	(g)(1) If not; is the uncased pipe temporally installed and does not exceed the manufacturer's recommended maximum periods of exposure or 2 years, whichever is less?				
	(h) Is the pipe being installed on bridges? (1) Is the pipe installed with protection from mechanical damage, such as installation in a metallic casing? (2) Protected from ultraviolet radiation? (3) Has not exceeded the pipe temperature limits specified in 192.123.				
§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?				
	(b)Test procedures insure discovery of all potentially hazardous leaks?				
	(c) Test pressure is at least 150 percent of the maximum operating pressure or 50 psig, whichever is greater.				
	(d) The temperature of the thermoplastic material, at time of testing, was not more than 100 degree F?				
§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?				
	(b) Does the operator insure that the test medium is disposed of in a manner that will minimize damage to the environment?				
§192.517	**Test Records**	**S**	**U**	**N/A**	**N/O**
	Operator's name, name of operator's employee responsible for making the test and the name of any test company used.				
	Test Medium, test pressure and test duration?				
	Pressure recording charts or other records of pressure readings?				
	Elevation variation, whenever significant for the particular test.				
	Leaks and failures noted and their disposition?				

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

Steel Pipe Installation						N/A ☐
Code Section						
	MATERIALS SPECIFICATIONS					
§192.55	(a) Qualification of Pipe:					
	(b) Manufacturing Standard & Grade:					
	(c) OD:					
	(d) Wall thickness:					
	(e) Wt. #/fc:					
	(f) type Longitudinal Weld:					
	(g) SMYS:					
	(h) Joint Design Bevel:					
	(i) Internal Coating:					
	(j) Min. joint length:					
	(k) total footage or miles:					
§192.55(b)	Does the steel pipe meet one of the API or ASTM Listed Specifications?					
§192.63	**Marking of materials**	**S**	**U**	**N/A**	**N/O**	
	(a) Are pipe, valves, and fittings properly marked for identification?					
	(c) Were pipe valves and fittings marked with other than field die stamping?					

	PIPE DESIGN	**S**	**U**	**N/A**	**N/O**
§192.105 (a)	Was the pipeline designed in accordance with this formula: $P = \frac{2St}{D}FET$				
§192.113	Is the longitudinal joint factor (E) for steel pipe equal to 1 (See table)?				
§192.115	Is the temperature derating factor (T) for steel pipe equal to 1 (See table)?				
§192.145 (a)	**Valves** Does each valve meet the minimum requirements, or the equivalent, of API 6D or national or international standard?				
§192.147 (a)	**Flanges and flange accessories** Does each flange or flange accessory meet the minimum requirements of ASME/ANSI B16.5, MSS SP44, or ASME/ANSI B16.24, or equivalent?				
§192.149 (b)	**Standard Fittings** Are steel butt welded fittings rated at or above the pressure and temperature as the pipe?				
§192.159	**Flexibility** Is the pipeline designed with enough flexibility to prevent thermal expansion or contraction from causing excessive stresses in the pipe or component?				
§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?				
	(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?				

	WELDING AND WELD DEFECT REPAIR/REMOVAL REQUIREMENTS	**S**	**U**	**N/A**	**N/O**
§192.225 (a)	Are welding procedures qualified under **Section 5 of API 1104** (19th ed. 1999, 10/31/01 errata) or **Section IX of ASME Boiler and Pressure Code** (2001 ed.) by destructive test?				
§192.225 (b)	Are welding procedures recorded in detail, including results of the qualifying tests?				
§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)				
	(b) Welders may be qualified under section I of Appendix C to weld on lines that operate at < 20% SMYS.				
§192.231	**Protection from Weather:** Is the welding operation protected from the weather conditions that could impair the quality of the completed weld?				
§192.233	Miter joints (consider pipe alignment)				
§192.235	**Preparation for welding:** Are welding surfaces clean, free of foreign material, and				

	aligned in accordance with the qualified welding procedure?				
§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?				
	(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?				
	(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**				
§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?				
	(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?				
§192.313 (b)	Bends and elbows If a circumferential weld is permanently deformed during bending, is the weld nondestructively tested?				

	WELD INSPECTIONS and NONDESTRUCTIVE TESTING REQUIREMENTS				
§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?				
§192.243	**Nondestructive testing (Transmission Only)**	**S**	**U**	**N/A**	**N/O**
	(a) Is a detailed written **NDT** procedure established and qualified?				
	(b) Are there records to qualify procedures?				
	(c) Is the radiographer trained and qualified? (Level II or better)				
§192.243(d)	Are the following percentages of each days field butt welds nondestructively tested: (Transmission Only)	**S**	**U**	**N/A**	**N/O**
	10% in Class **1** locations.				
	15% in Class **2** locations				
	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%.				
	100% at pipeline tie-ins.				
§192.243 (e)	Is a sample of each welder's work for each day nondestructively tested? (see code for exceptions)				
§192.243 (f)	Do the radiograph records and daily reports show:				
	Number of welds made.				
	Number of welds tested.				
	Number of welds rejected				
	Disposition of rejected welds				
	Is there a correlation of welds and radiographs to a bench mark? (Engineering station or survey marker)				

WELDING - 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”

	CORROSION REQUIREMENTS				
§192.455(a)	**External corrosion control: buried or submerged pipelines installed after July 31, 1971.**	**S**	**U**	**N/A**	**N/O**
	(1) Does the pipeline have an effective external coating and does it meet the coating specifications?				
	(2) Is a cathodic protection system installed or being provided for? (refer, ADB note below)				
§192.471	**External corrosion control: Test stations**	**S**	**U**	**N/A**	**N/O**
	(a) Are test leads mechanically secure and electrically conductive?				
	(b) Are test leads attached to the pipe by cadwelding or other process so as to minimize stress concentration on the pipe?				
	(c) Are bare test lead and the connection to the pipe coated?				
§192.461 (c)	**External corrosion control: Protective coating** Is the external protection coating inspected (by jeeping, etc.) prior to lowering the pipe into the ditch?				
§192.461 (d)	Each external protective coating must be protected from damage resulting from adverse ditch conditions or damage from supporting blocks.				
§192.463	Each cathodic protection system required by this subpart must provide a level of cathodic protection that complies with one or more of the applicable criteria contained in Appendix D of this part. If none of these criteria is applicable, the cathodic protection system must provide a level of cathodic protection at least equal to that provided by compliance with one or more of these criteria.				
§192.463(c)	The amount of cathodic protection must be controlled so as no to damage the protective coating of the pipe.				
§192.467(a)	Each buried or submerged pipeline must be electrically isolated from other underground metallic structures, unless the pipeline and the other structures are electrically interconnected and cathodically protected as a single unit.				
§192.467(b)	One or more insulating devices must be installed where electrical isolation of a portion of a pipeline is necessary to facilitate the application of corrosion control.				
§192.467(c)	Except for unprotected copper inserted in a ferrous pipe, each pipeline must be electrically isolated from metallic casings that are a part of the underground system. However, if isolation is not achieved because it is impractical, other measures must be taken to minimize corrosion of the pipeline inside the casing.				
§192.467(e)	An insulating device may not be installed in an area where a combustible atmosphere is anticipated unless precautions are taken to prevent arcing.				
§192.467(f)	Where a pipeline is located in close proximity to electrical transmission tower footings, ground cables or counterpoise, or in other areas where fault currents or				

	unusual risk of lightning may be anticipated, it must be provided with protection against damage due to fault currents or lightning, and protective measures must also be taken at insulating devices.				
§192.469	Each pipeline under cathodic protection required by this subpart must have sufficient test stations or other contact points for electrical measurement to determine the adequacy of cathodic protection.				
§192.471(a)	Each test lead wire must be connected to the pipeline so as to remain mechanically secure and electrically conductive.				
§192.473(a)	Each operator whose pipeline system is subjected to stray currents shall have in effect a continuing program to minimize the detrimental effects of such currents.				
§192.473(b)	Each impressed current type cathodic protection system or galvanic anode system must be designed and installed so as to minimize any adverse effects on existing adjacent underground metallic structures.				
§192.479(a)	Each operator must clean and coat each pipeline or portion of pipeline that is exposed to the atmosphere, except pipelines under paragraph (c) of this section.				
§192.479(b)	Coating material must be suitable for the prevention of atmospheric corrosion.				
§192.487(a)	General corrosion. Except for cast iron or ductile iron pipe, each segment of generally corroded distribution line pipe with a remaining wall thickness less than that required for the MAOP of the pipeline, or a remaining wall thickness less than 30 percent of the nominal wall thickness, must be replaced. However, corroded pipe may be repaired by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe. Corrosion pitting so closely grouped as to affect the overall strength of the pipe is considered general corrosion for the purpose of this paragraph.				
§192.487(b)	Localized corrosion pitting. Except for cast iron or ductile iron pipe, each segment of distribution line pipe with localized corrosion pitting to a degree where leakage might result must be replaced or repaired.				
	TESTING REQUIREMENTS				
§192.503(a)	**General requirements**	**S**	**U**	**N/A**	**N/O**
	Is a hydrostatic pressure test planned to substantiate the MAOP?				
	If the pipeline has been hydrostatically tested, have all potentially hazardous leaks been located and eliminated?				
§192.505	**Strength test requirements for steel pipeline to operate at a hoop stress of 30 percent or more of SMYS**	**S**	**U**	**N/A**	**N/O**
	(a) Is there a specified hydrostatic pressure testing procedure?				
	Is the **specified test pressure equal to 1.25 x MAOP for Class 1 and 2 locations**?				
	(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)				
	(e) Is the minimum test duration for pretested fabricated units and **short sections of pipe** at least **4 hours**?				
§192.507	**Test requirements for pipelines to operate at a hoop stress less than 30 percent of SMYS and at or above 100 psig.** Except for service lines and plastic pipelines, each segment of a pipeline that is to be operated at a hoop stress less than 30 percent of SMYS and at or above 100 psi (689 kPa) must be tested in accordance with the following:	**S**	**U**	**N/A**	**N/O**
	(a) The pipeline operator must use a test procedure that will ensure discovery of all potentially hazardous leaks in the segment being tested.				
	(b)If, during the test, the segment is to be stressed to 20 percent or more of SMYS and natural gas, inert gas, or air is the test medium- (1) A leak test must be made at a pressure between 100 psi (689 kPa) gage and the pressure required to produce a hoop stress of 20 percent of SMYS; or (2) The line must be walked to check for leaks while the hoop stress is held at approximately 20 percent of SMYS.				
	(c) The pressure must be maintained at or above the test pressure for at least 1 hour.				
§192.509	**Test requirements for pipelines to operate below 100 psig.** Except for service lines and plastic pipelines, each segment of a pipeline that is to be operated below 100 psi (680 kPa) gage must be leak tested in accordance with the following:	**S**	**U**	**N/A**	**N/O**
	(a) The test procedure used must ensure discovery of all potentially hazardous leaks in the segment being tested.				

	(b) Each main that is to be operated at less than 1 psi (6.9 kPa) gage must be tested to at least 10 psi (69 kPa) gage and each main to be operated at or above 1 psig must be tested to at least 90 psi (621 kPa) gage.				
§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 the test?				
	(b) Does the operator insure that the test medium is disposed of in a manner that will minimize damage to the environment?				
§192.517(a)	**Records:** Do the test records include the following:	**S**	**U**	**N/A**	**N/O**
	Operator's name, name of operator's employee responsible for making the test, and the name of the test company used.				
	Test Medium used:				
	Test pressure:				
	Test duration:				
	Pressure recording charts, or other record of pressure readings				
	Elevation variations, whenever significant for the particular test.				
	Leaks and failures noted and their disposition.				

Compressor Station N/A ☐

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

§192.167	**Compressor stations: Emergency shutdown**	**S**	**U**	**N/A**	**N/O**
(a)	Does the compressor station have an emergency shutdown system?				
(a)(1)	Is the ESD able to isolate station and blowdown station piping?				
(a)(2)	Is discharge of gas from the blowdown piping at a location where the gas will not create a hazard?				
(a)(3)	Will ESD shutdown compressor, gas fired equipment and electrical facilities (except emergency lighting and circuits needed to protect equipment)?				
(a)(4)	Are there at least two ESD stations outside gas area near exits gates or emergency exits?				
§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?				
(b)	Do relief valves vent in safe location?				
§192.171	Compressor stations: Additional safety equipment				
(e)	Are there slots or holes in baffles of gas engine mufflers?				
§192.173	**Compressor stations: Ventilation**				
	Are buildings ventilated to prevent the accumulation of gas?				
§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)				
§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?				

Public Utilities Commission
Pipeline Safety Construction Inspection

Weather Conditions: Temperature: _____ Wind Speed _____ Precipitation _____

Operator Qualification Page – §192.805

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

Comments:

_____
_____

Sketch of Work Area Location: