



Transcontinental Gas Pipe Line Company,
LLC
2800 Post Oak Blvd.
Houston, TX 77056

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Mr. Byron Coy
Director, Eastern Region
Pipeline and Hazardous Materials Safety Administration
Department of Transportation
Office of Pipeline Safety
820 Bear Tavern Road, Suite 103
Trenton, NJ 08628

CPF No. 1-2012-3003M

**RE: Williams Gas Pipeline Company, LLC (WGP)
Revised LNG (ST 240) Procedure B-7 – Control and Safety Device Test and
Inspection**

Dear Mr. Coy:

In response to PHMSA's Notice of Amendment, please find attached revised WGP LNG procedure "B7: Control and Safety Device Test and Inspection" which is highlighted in yellow to reflect revisions that address the reference to and incorporation of testing and inspection procedures contained in WGP's Operation & Maintenance Manual. The procedure also includes a table depicting plant devices with their allowable operating tolerances. The provision of both will ensure appropriate documentation of testing and inspection practices currently in place at WGP's LNG Facility in Carlstadt, New Jersey.

Also attached are WGP policy 30.02.00, "Remote Control Shutdown Devices: Inspection and Testing", and WGP procedure 30.02.01, "Remote Control Overpressure Shutdown Systems" which have been revised (red lined) to reflect that they are applicable to all WGP facilities, including LNG plants.

We appreciate PHMSA's identification of WGP's deficiency in documenting testing, inspection and calibration procedures. We believe that the revised policy and procedures will satisfy your request for action. Should you have any questions, please contact me at 713.215.2111.

Sincerely,

Marie G. Sotak
Manager – Pipeline Safety – East

Attachments

c: Mr. Stephen Gliebe – PHMSA – Eastern Region
Mr. Don Hockaday – WGP – Senior Counsel

**Procedure B-7: Control and Safety Device Test and
Inspection**

B-7: Control and Safety Device Test and Inspection

DOT 49 CFR Part 193.2619

A. Objective

The objective of this section is to ensure that all safety devices will perform properly in the event of equipment or system malfunction.

B. Responsibility

The LNG District Manager is to see that competent personnel perform the testing and inspection of safety devices at the LNG Plant.

C. Procedure

1. Reciprocating Engine Shutdown and Alarm Devices

All unit shutdown and alarm devices, except fusible plug devices, will be tested and inspected annually, not to exceed 15 months.

2. Unit Fuel Shutdown Valves

Each calendar year, the valves will be tested for bubble tightness to maintain an absolute leak tight condition. All parts will be inspected and replaced as necessary.

3. Station Shutdown and Alarm Devices

All station shutdown and alarm devices (i.e., high exchanger level, low temperature, low flow, low instrument air, and high discharge pressure), will be tested according to the manufacturer's recommendations a minimum of once each calendar year, but with intervals not to exceed 15 months. In the event these devices are designed to trip the station, provisions will be made to deactivate the trip so that the test can be made without losing the station.

4. Control Devices

All control devices, including but not limited to, control valves, level, temperature or pressure controllers, sensing devices, and indicators shall be tested and inspected once each calendar year, but with intervals not to exceed 15 months. All test and inspection records shall be maintained by the Automation Specialist.

Specific instructions are provided by the following WGP procedures:

- Policy 30.02.00 "Remote Control Shutdown Devices: Inspection and Testing"
- Procedure 30.02.01 "Remote Control Overpressure Shutdown Systems"
- Policy 30.59.00 "Control Devices"
- Procedure 30.59.01 "Digital Input/Output Devices"
- Procedure 30.59.02 "Analog Input/Output Devices"
- Procedure 30.59.03 "Temperature Devices"
- Procedure 30.59.04 "Pneumatic Control Devices"
- Procedure 30.59.05 "Frequency Devices"

- Procedure 30.59.06 "Vibration Systems"

Allowable tolerances (from manufacturer manuals) are as follows:

Mfg.	Model	Calibrated Accuracy
Ashcroft	B-Series Switches – Press, Diff & Hyd	+/- 1% Of Full Range
Ashcroft	P-Series – Temp Switches	+/- 1% Of Range Per 50 f
Ashcroft\Rockwell	Bulletin Press Switches	+ 0.5% Of Full Range
Asco	S-Series – Press, Vac, & Diff	+/- 5-100 Of Range
Bristol Babcock	Series 5450 – Indicating	+/- 0.5% Of Span
Dwyer	1627-1 Press Switch	+/- 1% Of -15\+1.5
Fairchild	Series T6000 I/P Transducer	+/- 0.5% Of 3\15lbs – Repeatability 0.25%
Fairchild	Series 24XS M/P Converters	+/- 0.5% Of Full Range
Fairchild	Series T8000 P/I Transducer	+/- 0.5% Of 3\15lbs – Repeatability 0.25%
Foxboro	Model 13A, 13H & 15A D/P Cells	+/- 0.5% Of Span
Foxboro	Model 44 Pneumatic Transducer	+/- 0.75% Of Span
Foxboro	Model 43AP Pneumatic Controller Style B	+/- 0.5% Of Span
Fisher	Series 3610 & 3620 Positioners	+/- 1.% Of Span
Fisher	Series 3622 Electro- Pneumatic Converter	+/- 1.% Of Span
Fisher	Series 3582 & 3583 Positioners (Sq Style)	+/- 1.% Of Span
Fisher	Series 3560 Positioners (Triangle Style)	+/- 1.% Of Span
Fisher	Series 4150 & 4160 Wizard II	0.5% Repeatability Of Sensing Range
Honeywell	Series C645A-E Press Switch	+/- 1.% Of Span
ITT\Neo-Dyn	Series 130P Press Switch	+/- 1.% Of Span
ITT\Neo-Dyn	Series 132P Press Switch	+/- 1.% Of Span
ITT\Neo-Dyn	Series 100P Press Switch	+/- 1.% Of Span
J-Tec	Series FC900 Flow Computer	+/- 1.% Of Full Scale
J-Tec	Series VI800 Flowmeter	+/- 1.% Of Full Scale
Moore	Series GC-500 Compact Nullmatic Controller	0.6% Reproducibility Of Span \ 0.02% Response Level Of Span
Moore	Series GC-50 M/P Indicating Control Station	Indicator Accuracy +/- .5% Of Full Scale
Moore	Series GC-150DP3 Delta P Pneumatic Diff Press Transmitter	Accuracy +/- 0.25% Of Span
Moore	Series 33 Temp transmitter	+/-0.5 deg
Moore	Series 65 Square root Extractor	0.6 PSIG

Moore	Series SD372 Indicator Station	Accuracy +/- 2% Of Span
Moore	Series SD781	Accuracy +/- 0.25% Of Span
Moore	Series SD771 - I/P Vlv Transducer	Response Level +/- 0.25% Of Span
Moore	Series SD528S Syncro III Control Station	Accuracy +/- 0.5% Of Span
Newport	Quanta – Series 558A	Display To Within +/-1% Count
Neo-Dyn\ITT	Series 140p Pressure Switch	+/- 1.% Of Full Scale
Rosemount	Model 262 – Handheld Calibrator	0.1% Digital Accuracy
Rosemount	Model 115DP Diff\Press Transmitters	+/-0.2%
Rosemount	Model 3051C Smart Press Transmitter	+/- 0.075% Of Span For From 1:1 To 10.1 Of URL
Rosemount	Model 3144 & 3244MV Smart Temp Transmitter	Total Accuracy +/-16deg c
Rosemount	Model 1151 Smart Transmitter	+/-0.1% Of Calibrated Span
Rosemount	Model 444 Alphasine Temp Transmitter	+/- 0.2% Of Calibrated Of Span
Rosemount	Model 115AP 1151GP Gage Press Transmitter	+/- 0.25% Of Calibrated Of Span
Taylor	Series 440R Indicating Controller	+/- 1.% Of Full Scale
Taylor	Series 375N Model B Pneumatic Computer	Multiplication & Squaring +/- 0.5%
Transpack	Model T703 DC-Input Isolating, Field-Configurable Two Wire Transmitter	Linearity, Hysteresis & Repeatability @25deg c +/-0.2% Of Adjustable Span
Yokogawa	Model EJA310A Absolute Press Transmitter	+/-0.15% Of Span
Yokogawa	Model EJA110A Diff Press Transmitter	+/-0.065% Of Span
United Electronic Controls	Series J6 Press & Vacuum Switches	+/-1.5% Of Adjustable Range
United Electronic Controls	Series 400 Press, Vacuum, Diff & Temp Switches	+/-2% Of Full Scale Range
United Electronic Controls	Series 100 Press, Vacuum, Diff & Temp Switches	+/-1.5% Of Adjustable Range
United Electronic Controls	Series Explosion-Proof 100 Press, Vacuum, Diff & Temp Switches	+/-1% Of Full Scale Range

5. Vaporization Shutdown and Alarm Devices

All vaporization shutdown and alarm devices shall be inspected and tested once each year just prior to the vaporization season.

6. Fire Protection Shutdown and Alarm Devices

All fire protection shutdown and alarm devices shall be inspected and tested in accordance with the manufacturer's recommendations twice each year not to exceed an interval of six months. Two flame detectors in the compressor building should be tested simultaneously.

- a. Gas detection*
- b. Heat detection
- c. Flame detection
- d. Smoke

*Gas detection systems in Compressor Buildings shall be set to warn personnel inside or entering the building at an air/gas mixture of 20% of the lower explosive limit (LEL). An emergency shutdown will be activated at an air/gas mixture of 40% of the LEL. The percent settings are the maximum allowed and can be set to a lower percent if desired by the District Manager. Basement gas detectors shall be calibrated with 50% LEL ethylene gas and tested with 20% LEL ethylene gas. All other gas detectors shall be calibrated with 50% LEL natural gas and tested with 20% LEL natural gas.

*At least (3) portable gas detectors must be available for use at all times.

7. Station Remote Control Emergency System

- a. Once Each Calendar Month:
 - (1) Check oil level in gas operator lubricators and hydraulic tanks.
 - (2) Where practical, short-cycle all gas-operated valves to insure operator is functioning.
- b. Semi-Annual (Simulated):
 - (1) Lubricate and check the working condition of all control valves in the gas-operated system.
 - (2) Operate the station emergency blowdown system from a control location. Blind flanges, skillet blinds, or Yale blanking caps are to be installed on blow-off valves for this check. Deactivate the emergency shutdown system for one of these semi-annual checks.
- c. Once Each Calendar Year at Intervals Not to Exceed Fifteen (15) Calendar Months:
 - (1) Once each calendar year, not to exceed 15 months, a complete station shutdown will be performed using the emergency system. This shutdown should coincide with one of the semi-annual blowdown checks listed above.
 - (2) The valve operating sequence and timing of opening or closing of valves will be noted. The maximum amount of time for operation of SO-1 is 3 minutes. All other components should each operate within 1 minute. Station 240 ESD/EBD Test form should be used to document the test.

8. Shutdown or Alarm Device

Any Shutdown or Alarm Device which has been removed from service for 30 days or more must be inspected and tested, to ensure its operational capability, prior to returning to the intended operation.

9. Fire Hydrants

Fire Hydrants will be tested semi-annually with a lock-up test and a visual inspection. Form WGP-0073, "Fire Water Inspection Report," will be filled out.

10. Fixed Dry Chemical Skids

Fixed dry chemical skids will be inspected for nitrogen bottle pressures monthly, not to exceed 45 days.

Semi-annually, not to exceed 7 months, a lock-up test and a visual inspection of all related piping will be done. The top will be open to check the dry chemical inside sphere. All nitrogen bottles will have pressures written down and if they are below #1750 need to be replaced.

**WGP Policy 30.02.00: Remote Control Shutdown Devices:
Inspection and Testing**

Policy 30.02.00.0506: "Remote Control Shutdown Devices: Inspection and Testing"

DOT - 49 CFR 192.731

1.0 Policy

1.1 It is the policy of WGP to inspect and maintain remote control shutdown devices at ~~compressor stations~~ [WGP facilities](#) that protect the pipeline from overpressure.

1.2 Remote Control shutdown devices that require inspection and testing per DOT requirements are devices that, if they fail, could allow pipeline pressure to exceed the [MAOP](#). At ~~compressor stations~~ [WGP facilities](#), this includes devices used to control gas discharge pressure and pipeline overpressure protection valves.

2.0 Frequency

2.1 The inspection and testing shall be performed at least once each calendar year, not to exceed 15 months.

OMS Number	OMS Description	Frequency
OMS 000103	Inspect and Test Remote Control-Overpressure S/D Sys	Annual (Y1)

3.0 Responsibility

3.1 The District Manager is responsible for ensuring compliance with this policy throughout their assigned geographic region.

RELATED TOPICS:

Form(s)	WGP-0103
Policy(s)	N/A
Procedure(s)	"Remote Control Overpressure Shutdown Systems" (30.02.01) "Digital Input/Output Devices" (30.59.01) "Analog Input/Output Devices" (30.59.02) "Pneumatic Control Devices" (30.59.04)

Revision Date: ~~08/27/10~~ [07/11/12](#)

**WGP Procedure 30.02.01: Remote Control Overpressure
Shutdown Systems**

Procedure 30.02.01.0405: "Remote Control Overpressure Shutdown Systems"

DOT - 49 CFR 192.731

1.0 Purpose

1.1 The purpose of this WGP procedure is to establish a standardized method for maintaining, and testing remote control overpressure shutdown system devices according to WGP policy 30.02.00, "Remote Control Shutdown Devices: Inspection and Testing."

2.0 Task Overview

- Calibrating and testing overpressure switches (~~mainline, station, unit~~)
- Calibrating and testing pressure [transmitters](#) used for overpressure protection
- Testing pipeline overpressure protection valves

3.0 Calibrating and Testing Overpressure Switches

3.1 Notify appropriate personnel before any calibration work begins.

3.2 Calibrate and test DOT-related overpressure protection switches per WGP procedure 30.59.01, "Digital Input/Output Devices."

3.3 DOT-related overpressure protection switches should be set as close to [MAOP](#) as operating conditions will allow, but in no case be set above MAOP plus 10% or 75% of SMYS for the line section being protected, whichever is lower.

3.4 Simulate an overpressure condition and test that the switch causes [unit/station/facility](#) shutdowns as appropriate.

4.0 Calibrating and Testing Pressure Transmitters Used for Overpressure Protection

4.1 Notify appropriate personnel before any calibration work begins.

4.2 Calibrate and test DOT-related pressure transmitters per WGP procedure 30.59.02, "Analog Input/Output Devices."

4.3 Calibrate and test DOT-related pneumatic pressure transmitters and relays per WGP procedure 30.59.04, "Pneumatic Control Devices."

4.4 Verify that the software program receives discharge pressure analog signals.



- 4.5 Simulate a high pressure.
- 4.6 Ensure that the software stops units as required at the proper MAOP+ deadband.

NOTE: Deadband refers to the amount of pressure above MAOP that is before units are shut down.

5.0 Testing Pipeline Overpressure Protection Valves

- 5.1 Notify appropriate personnel before any testing work begins.
- 5.2 Test DOT-related valves used for pipeline overpressure protection (not station sidegates).
- 5.3 Simulate an overpressure condition and verify proper valve operation.

6.0 Documentation

- 6.1 Complete form WGP-0103, "DOT Regulated Overpressure Protection Devices."

RELATED TOPICS:

Form(s)	WGP-0103
Policy(s)	"Remote Control Shutdown Devices: Inspection and Testing" (30.02.00)
Procedure(s)	"Digital Input/Output Devices" (30.59.01) "Analog Input/Output Devices" (30.59.02) "Pneumatic Control Devices" (30.59.04)