

Cathodic Protection Survey

Frequency: Once each calendar year, not exceeding intervals of 15 months.

System Name: Way Out Nowhere

Location (Facility Name): Way Out Nowhere

Location (MPUC Facility ID #): 2023

Surveyed By: James Cantafford

Date Surveyed: 6-1-20

Starting Location of Survey: Tanks

Ending Location of Survey: Building #1,2,4

Underground Tank/s : Yes No

Readings Around Tank(s) Remote From Anodes:

Reading #1 1.2

Reading #2 1.3

Reading #3 1.4

Reading #4 .91

Take copper sulfate half-cell readings at approximately 20 foot intervals along the mains and service lines.

FT	RDG	FT	RDG	FT	RDG	FT	RDG
0	-100 mv	110	-100 mv	500	.90		
15	-100 mv	150	-100 mv	700	.92		
30	-100 mv	200	-100 mv	1000	.86		
50	-100 mv	220	-100 mv				
80	-100 mv	240	-100 mv				

Signed: James Cantafford

Date: 6-1-20

Reviewed By: _____ Date: _____

Cathodic Protection Survey

Frequency: Once each calendar year, not exceeding intervals of 15 months.

System Name: Way Out Nowhere

Location (Facility Name): _____

Location (MPUC Facility ID #): 2023

Surveyed By: Kevin

Date Surveyed: July 4, 2021

Starting Location of Survey: Tanks

Ending Location of Survey: Building #1,2,4

Underground Tank/s : Yes No

Readings Around Tank(s) Remote From Anodes:

Reading #1 1.0 Reading #2 .99

Reading #3 1.1 Reading #4 .87

Take copper sulfate half-cell readings at approximately 20 foot intervals along the mains and service lines.

FT	RDG	FT	RDG	FT	RDG	FT	RDG
0	-100 mv	110	-100 mv	500	.92		
15	-100 mv	150	-100 mv	700	.88		
30	-100 mv	200	+100 mv	1000	.85		
50	-100 mv	220	+100 mv				
80	-100 mv	240	+100 mv				

Signed: JC

Date: July 4, 2021

Reviewed By: _____ Date: _____

Cathodic Protection Survey

Frequency: Once each calendar year, not exceeding intervals of 15 months.

System Name: Way Out Nowhere

Location (Facility Name): Way Out Nowhere

Location (MPUC Facility ID #): 2023

Surveyed By: James Cantafford

Date Surveyed: 11-4-22

Starting Location of Survey: Tanks

Ending Location of Survey: Building #1,2,4,6

Underground Tank/s : Yes No

Readings Around Tank(s) Remote From Anodes:

Reading #1 .98 Reading #2 .85

Reading #3 .99 Reading #4 .80

Take copper sulfate half-cell readings at approximately 20 foot intervals along the mains and service lines.

FT	RDG	FT	RDG	FT	RDG	FT	RDG
0	-100 mv	110	-100 mv	500	.85		
15	-100 mv	150	-100 mv	700	.84		
30	-100 mv	200	+100 mv	1000	.82		
50	-100 mv	220	+100 mv	2000	.85		
80	-100 mv	240	+100 mv				

Signed: James Cantafford Date: 11-4-22

Reviewed By: _____ Date: _____

Regulator Inspection Report

Frequency: Once each calendar year, not exceeding intervals of 15 months

COMPANY: Cantafford Propane LLC

Location (Facility Name): Way Out Nowhere

Location (MPUC Facility ID #): 2023

Regulator # 1

Make: Rego Model: 1588VN

Size: 1" Orifice Size: n/a

Pressure at inlet: TP Pressure at outlet: 20psi

M.A.O.P. of System to which it is connected: 30

Regulator # 2

Make: Rego Model: LV4403TR9

Size: 1" Orifice Size: 1/4

Pressure at inlet: 20 Pressure at outlet: 10

M.A.O.P. of System to which it is connected: 10

Regulator # 3

Make: Rego Model: V4403B66RA

Size: 3/4" Orifice Size: #28

Pressure at inlet: 10 Pressure at outlet: 11" wc

M.A.O.P. of System to which it is connected: 11" wc

Does regulator have an internal relief valve? Yes X No _____

Was regulator checked for lock up? Yes X No _____

Is regulator protected against damage from outside forces? Yes X No _____

Was vent and screen checked for blockage? Yes X No _____

Signature: James Cantafford

Date: 6-1-20

Reviewed By: _____ Date: _____

Regulator Inspection Report

Frequency: Once each calendar year, not exceeding intervals of 15 months

COMPANY: Cantafford Propane LLC

Location (Facility Name): Way Out Nowhere

Location (MPUC Facility ID #): 2023

Regulator # 1

Make: Rego Model: 1588VN

Size: 1" Orifice Size: n/a

Pressure at inlet: TP Pressure at outlet: 20psi

M.A.O.P. of System to which it is connected: 30

Regulator # 2

Make: Rego Model: LV4403TR9

Size: 1" Orifice Size: 1/4

Pressure at inlet: 20 Pressure at outlet: 12

M.A.O.P. of System to which it is connected: 10

Regulator # 3

Make: Rego Model: V4403B66RA

Size: 3/4" Orifice Size: #28

Pressure at inlet: 12 Pressure at outlet: 11" wc

M.A.O.P. of System to which it is connected: 11" wc

Does regulator have an internal relief valve? Yes X No _____

Was regulator checked for lock up? Yes _____ No _____

Is regulator protected against damage from outside forces? Yes X No _____

Was vent and screen checked for blockage? Yes X No _____

Signature: James Cantafford

Date: 9-18-21

Reviewed By: _____ Date: _____

Regulator Inspection Report

Frequency: Once each calendar year, not exceeding intervals of 15 months

COMPANY: Cantafford Propane LLC

Location (Facility Name): Way Out Nowhere

Location (MPUC Facility ID #): 2023

Regulator # 1

Make: Rego Model: 1588VN

Size: 1" Orifice Size: n/a

Pressure at inlet: TP Pressure at outlet: 10psi

M.A.O.P. of System to which it is connected: 10

Regulator # 2

Make: Rego Model: V4403B66RA

Size: 3/4" Orifice Size: #28

Pressure at inlet: 10 Pressure at outlet: 11" wc

M.A.O.P. of System to which it is connected: 11" wc

Regulator # 3

Make: _____ Model: _____

Size: _____ Orifice Size: _____

Pressure at inlet: _____ Pressure at outlet: _____

M.A.O.P. of System to which it is connected: _____

Does regulator have an internal relief valve? Yes _____ No x

Was regulator checked for lock up? Yes X No _____

Is regulator protected against damage from outside forces? Yes X No _____

Was vent and screen checked for blockage? Yes X No _____

Signature: James Cantafford

Date: 6-1-22

Reviewed By: _____ Date: _____

LP-Gas System – Leak Survey Report

Frequencies:

Business district: Once each calendar year, not exceeding intervals of 15 months.

Outside business district: Once every five calendar years, not exceeding intervals of 63 months; however, for cathodically unprotected distribution lines on which electrical surveys for corrosion are impractical, once every three calendar years, not exceeding intervals of 39 months.

COMPANY: Cantafford Propane LLC

Date: 6-1-20 Time: 0900

Location (Facility Name): Way Out Nowhere

Location (MPUC Facility ID #): 2023

Method(s) of Survey (pressure drop leakage test, a bubble leak test, or a subsurface gas detection survey).
Describe segments where used: _____

Survey by: James Cantafford Leak Found? Yes No

If Pressure Drop Test Used: Test Pressure: _____ psig, Start Time: _____ AM/PM, End Time: _____ AM/PM

CGI Used? Yes _____ No _____ Leak Grade: 1 2 3

Location of Leak: pipe

Cause of Leak: _____

Condition Made Safe*: Date: 6-2-20 Time: 1150

*Repair: See LP-gas System Repair Report

Reviewed By: _____ Date: _____

LP-Gas System – Leak Survey Report

Frequencies:

Business district: Once each calendar year, not exceeding intervals of 15 months.

Outside business district: Once every five calendar years, not exceeding intervals of 63 months; however, for cathodically unprotected distribution lines on which electrical surveys for corrosion are impractical, once every three calendar years, not exceeding intervals of 39 months.

COMPANY: Cantafford Propane LLC

Date: 7-4-21 Time: 1000

Location (Facility Name): Way Out Nowhere

Location (MPUC Facility ID #): 2023

Method(s) of Survey (pressure drop leakage test, a bubble leak test, or a subsurface gas detection survey).
Describe segments where used: pressure drop and bubble leak test

Survey by: James Cantafford Leak Found? Yes _____ No x

If Pressure Drop Test Used: Test Pressure: 30 psig, Start Time: 10am AM/PM, End Time: 10:10am AM/PM

CGI Used? Yes _____ No _____ Leak Grade: 1 2 3

Location of Leak: none

Cause of Leak: none

Condition Made Safe*: Date: _____ Time: _____

*Repair: See LP-gas System Repair Report

Reviewed By: _____ Date: _____

LP-Gas System – Leak Survey Report

Frequencies:

Business district: Once each calendar year, not exceeding intervals of 15 months.

Outside business district: Once every five calendar years, not exceeding intervals of 63 months; however, for cathodically unprotected distribution lines on which electrical surveys for corrosion are impractical, once every three calendar years, not exceeding intervals of 39 months.

COMPANY: Cantafford Propane LLC

Date: 7-4-21 Time: 1000

Location (Facility Name): Way Out Nowhere

Location (MPUC Facility ID #): 2023

Method(s) of Survey (pressure drop leakage test, a bubble leak test, or a subsurface gas detection survey).
Describe segments where used: pressure drop and bubble leak test

Survey by: James Cantafford Leak Found? Yes _____ No x

If Pressure Drop Test Used: Test Pressure: 10 psig, Start Time: 10am AM/PM, End Time: 10:10am AM/PM

CGI Used? Yes No _____ Leak Grade: 1 2 3

Location of Leak: none

Cause of Leak: none

Condition Made Safe*: Date: _____ Time: _____

*Repair: See LP-gas System Repair Report

Reviewed By: _____ Date: _____

A. Design and Testing of Cathodic Protection Systems - 192.453, 463, 465(a), 465(c), 467, 471, 473, 483, 487

1. Underground metallic pipelines, including underground tanks, will be tested once each calendar year, not to exceed fifteen months, to prove that the systems are being cathodically protected. **192.465 (a)** Although there are five acceptable methods of testing in Appendix D of 49 CFR 192, **Over Priced Propane** uses the -850-mv criteria for steel, and -100-mv shift for copper. **192.463**

The results of cathodic protection testing must be recorded.

B. Regulators and Overpressure Protection - 192.739

It is important that all systems operate within their intended acceptable pressure limits. Each pressure limiting station, relief device (except rupture disc), pressure regulating station, overpressure protection device (internal or external relief valve, and its equipment must be inspected and tested once each calendar year at intervals not to exceed 15 months to ensure it:

- Is in good mechanical condition;
- Has adequate capacity and reliability for the operation it serves;
- Is set to function at correct pressure; and
- Is properly installed and protected from vehicular traffic, dirt, liquids, icing and other conditions that might prevent proper operation
- **All tests and inspection results must be recorded.**

First Stage: All first-stage regulators will incorporate an integral pressure relief valve having a start-to-discharge setting within the limits specified in the Standard for LP-Gas Regulators, UL 144. When the regulator is of such a capacity that internal relief is not adequate or available to meet capacity then an external relief can be used and will be sized by the manufacturer's recommendations.

Regulators with a rated capacity of more than 500,000 Btu/hr can use a separate overpressure protection device complying with paragraphs 2.9.2 through 2.9.8 of the National Fuel Gas Code, NFPA 54 (ANSI Z223.1). The overpressure protection device must limit the outlet pressure of the regulator to 2.0 psi when the regulator seat disc is removed and the inlet pressure to the regulator is 10 psi or less.

Second Stage: **[Insert Company Name]** uses second-stage regulators with a maximum outlet pressure setting of 14 in. W.C., or a 2psi regulator with a downstream cut at the appliance, which are equipped with an integral pressure relief valve on the outlet pressure side having a start-to-discharge pressure setting within the limits specified in the Standard for LP-Gas Regulators, UL 144. This relief device must limit the outlet pressure of the second-stage regulator to 2.0 psi when the regulator seat disc is removed and the inlet pressure to the regulator is 10.0 psi or less as specified in the Standard for LP-Gas Regulators, UL 144

High Pressure Regulator System: Whenever a high-pressure regulator feeds multiple second stage regulators then the company will use a first stage regulator downstream of the high pressure regulator and upstream of the second stage regulators.

Reviewed By: _____ Date: _____

If the high-pressure regulator has an overpressure protection device (either integral or separate), has a rated capacity of more than 500,000 Btu/hr and the second stage regulator incorporates an integral or separate overpressure protection device then the first stage regulator is not needed. This overpressure protection device for the second stage regulator will limit the outlet pressure of the second stage regulator to 2.0 psi when the regulator seat disc is removed and with an inlet pressure equivalent to the maximum outlet pressure setting of the high-pressure regulator.

The company may use any of these installation methods. System records and maps must indicate the type, number, and location of system regulators. An example of system records including this information is included in **Appendix C**.

Regulators shall be chosen and installed in accordance with NFPA 58.

1. The system used is usually a two-stage system and never a single stage system.
2. Two first-stage regulators may be installed in parallel where considered necessary as a protection against system failure. One of the regulators is to function as the primary and be set at the required distribution pressure; the second is to serve as the backup and be set at about 1 psi lower.
3. Regulators equipped with high capacity internal relief valves shall be used. If a pressure regulator is not so equipped, an in-line relief valve with the appropriate start-to-discharge pressure shall be installed at the outlet of the regulator (See NFPA 58, Chapter 2).
4. A pressure gauge, or a fitting for inserting a gauge, shall be installed downstream of the first-stage regulator, for monitoring pressure, and performing a lock-up on the initial installation, and to verify regulator outlet delivery pressure(s) during the annual regulator inspection.

C. Leakage Survey - 192.723

1. The company will determine and document the frequency of scheduled leakage surveys as required by the nature and age of the system and local soil conditions. Distribution systems within a business area are to be surveyed once a calendar year, at intervals not to exceed 15 months. Distribution systems outside of a principal business area are to be surveyed at intervals at least once every 5 calendar years not to exceed 63 months. A CGI (Combustible Gas Indicator) must be used to make this survey.
2. For isolated sections of pipeline, a pressure drop leakage test, a bubble leak test, or a subsurface gas detection survey can be performed. **(See Appendix A for further instruction).**
Record all results.
3. For all systems with interior jurisdictional piping, a leak survey with a CGI must be performed.
4. [If the company operates cathodically unprotected distribution lines on which electrical surveys for corrosion are impractical, the operator must perform leakage surveys at minimum of every 3 years, not to exceed 39 months.]

Reviewed By: _____ Date: _____