Description	This procedure includes the written procedure for handling natural gas leak complaints; grading and repair schedule of leaks, leak management, and reporting of leaks.
Regulatory Applicability	All DOT regulated gas lines that are not odorized. ☒ Regulated Transmission Pipelines ☒ Regulated Gathering Pipelines (Type A) ☒ Regulated Gathering Pipelines (Type B) ☒ Regulated Distribution Pipelines
Frequency	Anytime a leak is discovered.

Reference

16 TAC Rule 8.210(e)	Leak Reporting
16 TAC Rule 8.2025	Written Procedure for Handling Natural Gas Leak Complaints
16 TAC Rule 8.207	Leak Grading and Repair
16 TAC Rule 8.210	Reports

Forms / Record Retention

WTG 1100	Exposed Pipe Inspection / 5 Years
WTG 1101	Leak Report Form / Life of Pipeline System
F-TAC 8.205	Log of Leak Complaints / Life of Pipeline System
PS-95	Semi-Annual Leak Report (Online filing at *http://www.rrc.state.tx.us.onlinefilings/rrconline.phb*) / Life of Pipeline System

Related Specifications

None

OQ Covered Task	1231	*Inside Gas Leak Investigation*
	1241	*Outside Gas Leak Investigation*

Procedure Steps

Handling Leak Complaints:

Note: WEST TEXAS GAS will promptly respond to all notifications of a gas leak, gas odor or any notification of damage to the facility by excavators or other outside sources.

1. Leak complaints are received through the pipeline 24 hour / 7 days per week emergency number within each district. This number can be found on pipeline markers and in local listings.
2. Once a complaint is received, it is to be recorded, along with the action taken, on F-TAC 8.205 – Leak Complaint Log.
3. Once the complaint is documented, call a trained individual to locate the source of the leak and determine the degree of the hazard.

Note: Have Pipeline Supervisor review all leak complaints on the next business day by 10:00 am for all complaints received by midnight on the previous day. This review is to be documented on F-TAC 8.205 – Leak Complaint Log.

Training Personnel to Investigate Leak Complaints:

1. WTG personnel are trained to follow procedure P-192.706 and this procedure when using gas detectors to determine where the leak is, the grade of the leak and how to respond to the leak. Individuals locating the leak are qualified through the WEST TEXAS GAS Operator Qualification Plan.

Locating the Source of the Leak

1. Get as precise information as possible of potential location from individual taking complaint.
2. Ensure leak detector equipment has been calibrated properly.
3. Determine wind direction on site.
4. Determine possible leak sources upstream of wind from complaint area.
5. Use portable leak detector to find leak source.

Determining the Degree of Hazard Involved with the Leak

Note: If assistance is required when determining the degree of hazard the following chain of command shall be followed:

Name	Position	Contact Information
Local District Manager		
Bart Bean	VP of Operations	(800) 323-6596 office (806)676-7240 mobile
Ray Reed	Director of Integrity Management	(806)358-1321 office (620)271-3793 mobile

Instructions to Provide to Customers / Public after Determining Degree of Hazard

Once the degree of the hazard has been determined provide customers and the general public in the area with the following information:

1. If leak has been determined to exist on the customers piping, WTG shall inform the customer of the nature and location of the leak (if known) which was discovered. WTG will then inform the customer that the customers meter will be locked, blinded, or removed until the leak has been repaired.
2. Give the following safety tips, as appropriate
    - Turn off and abandon any motorized equipment you may be operating.
    - If in a building, ventilate by opening doors and windows if possible, then exit the building immediately.
    - Avoid flames and operating electrical appliances and/or equipment.
    - Do not smoke or light matches.
    - Do not use telephones (even cellular), flashlights or other items that can produce a spark.
3. If leak has been determined to exist on WTG's piping/facilities, WTG will have properly trained individual determine the grade of the leak and the action required. (See *Leak Grading and Repair Schedule)*

Leak Grading and Repair Schedule

The purpose of the leak grading system is to determine the degree or extent of the potential hazard resulting from gas leakage and to prescribe remedial actions. Each operator shall promptly respond to any notification of a gas leak or gas odor or any notification of damage to facilities by excavators or other outside sources.

In the event a leak is found complete form WTG 1101 using terminology from Appendix A of this procedure. Forward this form to appropriate WTG personnel for entering into the Leak Tracking System.

West Texas Gas will ensure that leak grading is made only by those individuals qualified through WTG's recognized Operator Qualification program, and who possess training, experience, and knowledge in the field of leak classification and investigation, including extensive association with actual leakage work. The judgment of these individuals, based upon all pertinent information and a complete leakage investigation at the scene, will form the basis for the leak grade determination. The qualified individual will ensure that their leak detection equipment has been properly calibrated prior to beginning any leakage surveys.

All leaks identified after September 1, 2008 will be repaired according to the tables on the following pages.

Grade	Definition	Action Criteria	Examples
1	A leak that represents an existing or probable hazard to persons or property, and requires immediate action to eliminate the hazard and make repairs.	Requires prompt action* to protect life and property, and continuous action until the conditions are no longer hazardous. **The prompt action in some instances may require one or more of the following.* • Implementation of company emergency plan (192.615) • Evacuating premises • Blocking of an area • Rerouting traffic • Eliminating sources of ignition • Venting the area • Stopping the flow of gas by closing valves or other means • Notifying police and fire departments	• Any leak which, in the judgment of operating personnel at the scene, is regarded as an immediate hazard • Escaping gas that has ignited • Any indication of gas that has migrated into or under a building, or into a tunnel • Any reading at the outside wall of a building, or where gas would likely migrate to an outside wall of a building • Any reading of 80% LEL, or greater, in a confined space • Any reading of 80% LEL, or greater, in small substructures (other than gas associated substructures) from which gas would likely migrate to the outside wall of a building • Any leak that can be seen, heard, or felt, and which is in a location that may endanger the general public or property

2	A leak that is recognized as being non-hazardous at the time of detection, but justifies scheduled repair based on probable future hazard.	In determining the repair priority, criteria such as the following should be considered. • Amount and migration of gas • Proximity of gas to buildings and subsurface structures • Extent of pavement • Soil type, and soil conditions (such as frost cap, moisture and natural venting) Grade 2 leaks should be re-evaluated at least once every 30 days until cleared or repaired. The frequency of re-evaluation should be determined by the location and magnitude of the leakage condition. Grade 2 leaks may vary greatly in degree of potential hazard. Some Grade 2 leaks, when evaluated by the above criteria, may justify repair within the next five days; while, others will require repair within 30 days. During the working day on which the leak is discovered, these situations should be brought to the attention of the individual responsible for scheduling leak repair. On the other hand, many Grade 2 leaks, because of their location and magnitude, can be scheduled for repair on a normal routine basis with periodic re-inspection as necessary. **Note**: All Grade 2 leaks will be repaired within Six Months of detection. **Note**: Action must be taken ahead of ground freezing or other adverse changes in venting conditions with respect to any leak which, under frozen or other adverse soil conditions, would likely allow gas to migrate to the outside wall of a building.	**Leaks requiring action ahead of ground freezing or other adverse changes in venting condition:** • Any leak which, under frozen or other adverse soil conditions, would likely migrate to the outside wall of a building. **Examples of Grade 2 Leaks listed below:** • Any reading of 40% LEL, or greater, under a sidewalk in a wall-to-wall paved area that does not qualify as a Grade 1 leak • Any reading of 100% LEL, or greater, under a street in a wall-to-wall paved area that has significant gas migration and does not qualify as a Grade 1 leak • Any reading less than 80% LEL in small substructures (other than gas associated substructures) from which gas would likely migrate creating a probable future hazard • Any reading between 20% LEL and 80% LEL in a confined space • Any reading on a pipeline operating at 30% SMYS, or greater, in a class 3 or 4 location, which does not qualify as a Grade 1 leak • Any reading of 80% LEL, or greater, in gas associated substructures • Any leak which, in the judgment of operating personnel at the scene, is of sufficient magnitude to justify scheduled repair

Grade	Definition	Action Criteria	Examples
3	A leak that is non-hazardous at the time of detection and can be reasonably expected to remain non-hazardous.	These leaks should be re-evaluated during the next scheduled survey, or within 15 months of the date reported, whichever occurs first, until the leak is repaired, regarded, or no longer results in a reading. Leak must be repaired within 36 months of detection.	Leaks Requiring Re-evaluation at Periodic Intervals: • Any reading of less than 80% LEL in small gas associated substructures • Any reading under a street in areas without wall-to-wall paving where it is unlikely the gas could migrate to the outside wall of a building • Any reading of less than 20% LEL in a confined space

Leak Reporting

All leak complaints reported by the public will be documented and reviewed using Form TAC 8.205 and will be retained in the appropriate file.

In the event WTG personnel determines any leak on a WTG (distribution or transmission) asset, WTG personnel will complete form WTG 1101. This information will be entered into the WTG Leak Tracking System by the appropriate personnel.

In addition to reporting a leak, the gas loss report found on form WTG 1101 must be filled out and submitted to the appropriate personnel.

For applicable (distribution, plastic gathering and plastic transmission lines) Texas pipelines, this system will then be used to make the semiannual leak reports on July 15th and January 15th submission to the Commission.

Note: Refer to the Leak Tracking System manual for further information.

Post-Repair Inspection

A leak is considered to be effectively repaired when qualified WTG personnel obtains a gas concentration reading of 0%. For a repaired leak with a gas concentration reading greater than 0% at the time of repair, conduct a post-repair leak inspection within 30 days after the repair to determine whether the leak has been effectively repaired. If the second post-repair inspection shows a gas concentration reading greater than 0%, continue conducting post-repair leak inspections every 30 days until there is a gas concentration reading of 0%. If after six post repair inspections have been performed and a gas concentration reading of greater than 0% has been obtained, then a new leak report will be created with a new leak grade determination.

Post-repair inspections are not required for leak repairs completed by the replacement or insertion of an entire length of pipe or service line, or for the repair of leakage caused by excavator or third-party damage, provided a complete re-evaluation of the leak area after completion of repairs verifies that no further indications of leakage exist.

Remedial measures such as lubrication of valves or tightening of packing nuts on valves which seal leaks are considered to be routine maintenance work and do not require a post-repair inspection.

When a leak is upgraded to a higher grade, the time period for repair is the remaining time based on its original classification or the time allowed for repair under its new grade, whichever is **less**. This requirement does not apply to a leak that, at the time of discovery, was classified at a lower grade pending a further, more complete investigation of the leak hazard area.

PS-95 Semi-Annual Leak Report

Reporting

Note: Instructions for filing this report can be found at the end of this procedure.

On July 15th and January 15th of each calendar year, file Form PS-95: *Semi-Annual Leak Report (electronic filing on the RRC website)*. The form submitted on July 15th will include information from the previous January 1st through the previous June 30th. The report submitted on January 15th will include information from the previous July 1st through the previous December 31st. The report will contain the following information:

- List of all leaks identified on the pipeline system;
- List of leaks repaired;
- List of leaks that remain unrepaired (Note: These should be listed by leak grade);
- Leak location;
- Facility type;
- Leak classification;
- Pipe size;
- Pipe type;
- Leak cause; and
- Leak repair method.

Electronic Filing Requirements

The Railroad Commission of Texas (RRC or Commission) has implemented an online system for the filing of pipeline Integrity reports. The web-based system is a part of the RRC Online system. This document describes Electronic Document Interchange (EDI) filing procedures for the PS-95 Leak Report that is a part of the Pipeline Integrity application.

EDI Filing Option:

a) Capability to file PS-95 Leak Reports via EDI.

b) The new system provides a delimited format allowing filers to easily file via EDI. Anyone using spreadsheet software to compile PS-95 data will be able to export the file to a right curly bracket (}) delimited format for EDI submission.

c) Elimination of the Commission's requirement to submit a test file. The Pipeline Integrity application will validate the format of each file submitted. A file not meeting the formatting requirements will be rejected. The filer will be required to correct the formatting error and resubmit the file. Since this check will be performed each time a file is submitted, the necessity to submit and receive a certification of formatting is redundant and therefore eliminated. However, the Commission will provide EDI filers with the capability to test a file prior to submitting to validate their EDI file format.

d) For specific records not meeting the filing requirements, the filer will receive error/approval feedback on the screen in the form of a message. A file may be resubmitted once all errors are corrected.

Security:

An organization (i.e., a Form P-5 operator) must file a Security Administrator Designation (SAD) Form with the Commission as a requirement for filing online and/or EDI. An account is created for the person designated on the SAD Form as the Security Administrator for the organization. This Security Administrator, in turn, can assign "Filing Rights" to employees of the organization authorizing them to file RRC forms online.

Organizations that have existing SAD forms do not need to re-file. The existing Security Administrators will be able to assign Pipeline Integrity "Filings Rights" to the users within the RRC Online Application.

EDI File and Format Requirements:

1. Permission to file electronically must be obtained from the Commission via a SAD (Security Administrator Designation) Form. Contact the P-5 department for more information. Information may also be found at http://www.rrc.state.tx.us/formpr/index.html.
2. The file will have a delimited format. Only the following delimiter is allowed: a right curly bracket} (rcb).
3. Numeric columns must not contain any commas – e.g., use 1000000 for one million, not 1,000,000. Nor should columns contain currency formatting like "$" or "USD".
4. Data Entry is case sensitive.

Record Layouts:

Each file submitted to the RRC for EDI Processing must have an Indentifying Record as the first record in the file. The processing of this record includes the validation that the User ID is authorized to file electronically. An operator may obtain authorization by submitting the Security Administrator Designation Form (SAD) to the Commission's P-5 department.

Order	Required	Max Length (in characters)	Data Item	Data Type	Description
1	Y	1	Record Type	Integer	Type of record for this identifying record must be 1.
2	Y	4	Report Type	Alpha-numeric	Must be PS95.
3	Y	10	User ID	Alpha-numeric	User ID assigned by the RRC to the filer. User ID must match User ID of person logged in.
4	Y	32	User Name	Alpha-numeric	Name of the User submitting the file.
5	Y	32	User E-mail Address	Character	Email address for the User. Will be used to contact the USER and should be valid.
6	Y	6	Operator Number	Integer	Operator Number is the 6 digit number assigned to P-5 Operators by the RRC.
7	Y	4	Report Year	Integer	Reporting year currently being. Format is YYYY
8	Y	1	Report Period	Integer	1 = 1st half of year, January – June 2 = 2nd half of year, July - December
9	Y	4	Record Count	Integer	Number of records in this filing.

PS-95 Unrepaired Leak Summary Record:

Data Included in this record type will replace any previously submitted data.

Order	Required	Max Length (in characters)	Data Item	Data Type	Description
1	Y	1	Record Type	Integer	Type of Record for Detail Record must be 2
2	Y	6	Total Grade 1 Unrepaired Leaks for filing period	Integer	Number of unrepaired leaks considered an existing or probable hazard to person or property requiring prompt action. See Leak Classification Lookup Table on page 8 for complete grade 1 definition.
3	Y	6	Total Grade 2 Unrepaired Leak for filing period	Integer	Number of unrepaired leaks considered an existing or probable hazard to person or property requiring prompt action. See Leak Classification Lookup Table on page 8 for complete grade 2 definition.
4	Y	6	Total Grade 3 Unrepaired Leaks for filing	Integer	Number of unrepaired leaks considered an existing or probable hazard to person or property requiring prompt action. See Leak Classification Lookup Table on page 8 for complete grade 3 definition.

PS-95 Unrepaired Leak Summary Record:

Data Included in this record type will replace any previously submitted data.

Order	Required	Max Length (in characters)	Data Item	Data Type	Description
1	Y	1	Record Type	Integer	Type of Record for Detail Record must be 3
2	Y	6	Pipeline System ID	Integer	System ID is the 6-digit number assigned by the RRC.
3	Y	20	Operators Leak ID	Alpha-numeric	An Operator-generated number for the leak incident. Must be unique to the incident during that filing period for the Operator. All Characters are allowed
4	Y	8	Date Leak Reported	Integer	Date that the leak was reported, not always the date it occurred including two digit month and day, and 4-digit year. Must be in format (YYYYMMDD). If the specific day is not known, use the first of the month. Date must be prior to or within the current filing period. It may not be a future date.

Order	Required	Max Length (in characters)	Data Item	Data Type	Description
5	Y	40	Street Address 1	Alpha-numeric	Address where the leak occurred. Address may read “2500 Block of Main Street” if the exact address is not know. Must be at least 3 characters in length.
6	N	40	Street Address 2	Alpha-numeric	Second Address Line where the leak occurred.
7	Y	40	City	Alpha-numeric	City (or nearest city) where the leak occurred. Must be at least 3 characters in length.
8	N	5	Zip Code	Integer	5-digit zip code where the leak occurred. If entered, should correspond with the City indicted above.
9	Y	3	Country	Integer	County where the leak occurred. Select an FIPS County Code from County Code Lookup Table beginning on Page 13.
10	Y	1	Leak Located	Integer	Valid values are 1 (above ground piping) and 2 (below ground Piping). The soil/air interface is considered above ground
11	Y	2	Leak Located On	Integer	Further pinpoints the location of the leak along the pipeline. Select a value from Located on Lookup Table on page 8.
12	N	7	Material Type	String	Compression Coupling Material Type – either “Steel” or “Plastic”. Required if Leak Located on value equals 12.
13	N	8	Compression Coupling Date	Integer	Date compression coupling installed. Required if leak located on equals 12. Must be format (YYYYMMDD).
14	Y	1	Facility Type	Integer	Indicates the type of Facility affected. Select a code from the Facility Type Lookup Table on Page 8.
15	Y	4	Pipe Size	Decimal	Decimal representation of IPS pipe size from ½ inch to 12 inches. For example, ½ inch would be .5 or 0.5 or 0.50, 3 ½ would be 3.5 or 3.50, and 11 would be either 11 or 11.0, or 11.00.
16	Y	2	Pipe Type	Integer	Material type where the leak is located. Select a code from Pipe type Lookup table on page 9.
17	*	3	Pipe Manufacturer	Alpha-numeric	If the pipe Type Code is 8, 9, or 11, provide a Manufacturer. Select a code from the Pipe Manufacturer Lookup Table on page 9.

Order	Required	Max Length (in characters)	Data Item	Data Type	Description
18	*	3	Pipe ASTM Material Code	Alpha-numeric	If the pie code is 8, 9, or 11, provide the ASTM Material Code. See ASTM Code Lookup Table on page 10.
19	Y	1	Leak Classification	Integer	The leak classification is based on the operating and maintenance procedures. Select a code from the Leak Classification Lookup Table on page 8.
20	*	2	Type of Leaking Joint	Integer	Type of joint that leaked. Required if Located On Code is 5 (joint). Select from a code from Joint Type Lookup Table on page 11.
21	*	2	Type of Leaking Fitting	Integer	The type of fitting that leaked. Required if Located on code is 4 (fitting). Select from Fitting Type Lookup Table on page 11.
22	*	20	Coupling Model	Alpha	The model of the coupling that failed. Required if Located on code is 12.
23	*	20	Coupling Manufacturer	Alpha	The manufacturer of the coupling that failed. Required if Located on code is 12.
24	Y	2	Leak Cause	Integer	The root cause of the failure. Select a code from Leak Cause Lookup Table on page 12.
25	*	250	Other Leak Cause	Alpha-numeric	Further defines an Other Leak Cause. Required if Other Leak Cause code 81 was entered for leak cause. Must be at least 3 characters in length.
26	Y	2	Leak Repair Method	Integer	Type of repair that was made. Select a code from Leak Repair Method Lookup table on page 13.
27	Y	8	Repair Date	Integer	Date the repair was made. The date must be during the reporting period, cannot be a future date, cannot be before the date the leak was reported, and must be formatted YYYYMMDD.

Appendix A:

Lookup Tables:

Leak Classification Lookup Table

Leak Classification Code	Description
1	Grade 1 – an existing or probable hazard to persons or property and requires the operator to take action immediately to eliminate the hazard and make repairs.
2	Grade 2 – is non-hazardous at the time of detection, but requires the operator to schedule repair based on probable future hazard. It can be scheduled for repair on a normal routine basis with periodic re-inspection as necessary.
3	Grade 3 – is non-hazardous at the time of detection and can be reasonably expected to remain non-hazardous.

Located on Lookup Table

Located On Code	Description
1	Valve
2	Body of Pipe
3	Stopcock
4	Fitting
5	Joint
6	Gauge Line
7	Riser
8	Regulator
9	Meter
10	Drip
11	Tap
12	Compression Coupling

Facility Type Lookup

Facility Type Code	Description
1	Main
2	Service
3	Transmission

Pipe Type Lookup Table

Pipe Type Code	Description
1	Bare Steel
2	Coated Steel
3	Ductile Iron
4	Cast Iron
5	Galvanized
6	Copper
7	Brass
8	High Density Polyethylene
9	Medium Density Polyethylene
10	Aldyl Polyethylene
11	Poly-Vinyl-Chloride

Pipe Manufacturer Lookup Table

(High Density PE, Medium Density PE Or PVC)

Code	Manufacturer
PP1	PolyPipe
PP2	PolyPipe, Inc.
PP3	CSR PolyPipe
RK1	Rinker
PF1	Performance Pipe
PX1	Plexco
DC1	Driscopipe
QU1	Quail
UP1	Uponorr
NP1	Nipak
OTH	Other, not listed, or unknown

ASTM Code Lookup Table

Material Code	Description
PA1	Polyamide PA 32312
PB1	Polybutylene PB 2110
PE1	Polyethylene PE 2306
PE2	Polyethylene PE 2406
PE3	Polyethylene PE 3406
PE4	Polyethylene PE 3408
PV1	Polyvinyl Chloride PVC 1120
PV2	Polyvinyl Chloride PVC 1220
PV3	Polyvinyl Chloride PVC 2110
PV4	Polyvinyl Chloride PVC 2116
ABS	Acrylonitrile Butadiene Styrene ABS 1210
CA1	Cellulose Acetate Butyrate CAB MH08
CA2	Cellulose Acetate Butyrate CAB S004
RTR	Reinforced Epoxy Resin RTRP
OTH	Other Material Designation

Joint Type Lookup Table

Joint Type Code	Description
1	Factory Butt Weld (Steel)
2	Factory Fillet Weld (Steel)
3	Field Butt Weld (Steel)
4	Field Fillet Weld (Steel)
5	Threaded
6	Mechanical joint
7	Bell & Spigot
8	Flange
9	Butt Fusion (Plastic)
10	Socket Fusion (Plastic)
11	Saddle Fusion (Plastic)
12	Electrofusion (Plastic)
13	Sidewall Fusion (Plastic)
14	Not Applicable
15	Other

Fitting Type Lookup Table

Fitting Type Code	Description
1	Mechanical Service Tee
2	Heat Fusion Service Tee
3	Electrofusion Service Tee
4	Welded Service Tee
5	Saddle Fitting
6	Service Tee Cap
7	Anodeless Meter Riser
8	Threadolets/Weldlets/Sockolets
9	Plugs/Caps
10	Elbow
11	Nipple
12	Tee
13	Diaphragm
14	Other Meter Riser
17	Transition Fitting
18	Split Sleeve
19	Leak Clamp
20	Bell Joint
21	Meter Swivel
22	Union
23	Insulator
24	Other

Leak Cause Lookup Table

Leak Cause Group	Leak Cause Code	Leak Cause Description
Corrosion Group		
	11	Corrosion
Excavation Group		
	21	Operator Personnel/Contractors Excavating
	22	Other Third Party Excavators
	23	Locator
	24	Vehicle (Auto/Truck/etc.)
Natural Forces		
	31	Lightning
	32	Washout
	33	Ground Movement
	34	Ice
	35	Static Electricity
Other Outside Forces		
	41	Vandalism

Leak Cause Group	Leak Cause Code	Leak Cause Description
	42	Fire/Explosion First
	43	Excessive Strain
Materials & Welds		
	51	Dent
	52	Gouge
	53	Factory Defect
	54	Wrinkle Bend
	55	Weld (Steel)
	56	Fusion Defect (Plastic)
Equipment		
	61	Equipment Malfunction
	62	Gasket/O-Ring
	63	Packing
Operations		
	71	Inadequate/Failure to Follow Procedures
	72	Stripped Threads
	73	Backfill
Other Group		
	81	Other
	82	Not Excavated

Leak Repair Lookup Table

Repair Method Code	Description
1	Clamp Installed
2	Split Sleeve
3	Encapsulation
4	Component Replaced
5	Abandoned (Not Replaced)
6	Pipe Replaced
7	Greasing
8	Doped/Caulked
9	Tighten
10	Sealing Bell & Spigot Joint
11	Insertion