

**NATURAL GAS
PART 192**

**GAS PIPELINE TRANSMISSION
OPERATION AND MAINTENANCE
MANUAL**

Subpart M

Maintenance

§ 192.701 Scope

This subpart prescribes minimum requirements for maintenance of pipeline facilities.

§ 192.703 General

- (a) No person may operate a segment of pipeline, unless it is maintained in accordance with this subpart.
- (b) Each segment of pipeline that becomes unsafe must be replaced, repaired, or removed from service.
- (c) Hazardous leaks must be repaired promptly.

Approved: Signature on file Date:
 Manager, Safety, Health, and Environmental

Approved: Signature on file Date:
 Environmental Manager

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ESI RESPONSE TO § 192.703

Any time that a pipeline is determined to be leaking an immediate temporary repair will be made to insure public safety, minimize damage to property and avoid damage to the environment. Reference ESI's "Pipeline Repair Procedure" DOT-007 for more information.

Any detection of a possible safety-related condition, as defined below, should be reported to the Ethylene Terminal Manager/Shift Supervisor immediately. The Shift Supervisor will then contact the Unit Manager to develop a plan for reporting the condition based on the following deadlines:

A safety-related condition must be reported within 5 working days after a determination has been made by the operator that a condition exists. However, a report must be filed no later than 10 days after discovery of the condition. (Note: Refer to Part 191.23 and 191.25 for specific details).

If it is determined that a safety-related condition does exist, the Ethylene Terminal/Unit Manager and Shift Supervisor will develop a plan to correct the problem in a timely manner. This may require a risk analysis and input from the Technology Managers. Each line segment that becomes unsafe will be replaced, repaired or removed from service promptly.

The following circumstances are considered to be safety-related conditions for a facility in operation:

- (a) General corrosion, on a pipeline that operates at a hoop stress of 20% or more of its specified minimum yield strength, that has reduced the wall thickness to less than that required for the maximum allowable operation pressure, and localized corrosion pitting to a degree where leakage might result.
- (b) Unintended movement or abnormal loading by environmental causes, such as earthquake, landslide, or flood, that impairs the serviceability of a pipeline or the structural integrity or reliability of a facility that contains, controls, or processes gas.

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- (c) Any crack or other material defect that impairs the structural integrity or reliability of a facility that contains, controls, or processes gas.
- (d) Any material defect or physical damage that impairs the serviceability of a pipeline that operates at a hoop stress of 20% or more of its specified minimum yield strength.
- (e) Any malfunction or operating error that causes the pressure of a pipeline or facility that contains or processes gas to rise above its maximum allowable operating pressure plus the buildup allowed for operation of pressure limiting or control devices.
- (f) A leak in a pipeline or facility that contains or processes gas that constitutes an emergency.
- (g) Any safety-related condition that could lead to imminent hazard and causes (either directly or indirectly by remedial action of the operator), for purposes other than abandonment, a 20% or more reduction in operating pressure or shutdown of operation of a pipeline or a facility that contains or processes gas.

Safety-related conditions not requiring a report are those that:

- (a) Is an incident or results in an incident before the deadline for filing the safety-related condition report.
- (b) Exists on a pipeline that is more than 220 yards from any building intended for human occupancy or outdoor place of assembly, except that reports are required for conditions within the right-of-way of an active rail-road, paved road, street, or highway.
- (c) Is corrected by repair or replacement in accordance with applicable safety standards before the deadline for filing the safety-related condition report, except that reports are required for conditions under paragraph (a)(1) of Part 191.23 other than localized corrosion pitting on an effectively coated and cathodically protected pipeline.

Documentation

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Pipeline Patrol/Marker/Leak Insp. Report E-1 DOT Files

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Post-DOT Construction/Maintenance Records B-2 DOT Files**§ 192.705 Transmission Lines: Patrolling**

- (a) Each operator shall have a patrol program to observe surface conditions on and adjacent to the transmission line right-of-way for indications of leaks, construction activity, and other factors affecting safety and operation.
- (b) The frequency of patrols is determined by the size of the line, the operating pressures, the class location, terrain, weather, and other relevant factors, but intervals between patrols may not be longer than prescribed in the following table:

	Maximum interval between patrols	
Class location of line	At highway and railroad crossings	At all other Locations
1,2	7-1/2 months; but at least two times each calendar year.	15 months; but at least one time each calendar year.
3	4-1/2 months but at least 4 times each calendar year.	7-1/2 months; but at least two times each calendar year.
4	4-1/2 months; but at least 4 times each calendar year.	4-1/2 months; but at least 4 times each calendar year.

- (c) Methods of patrolling include walking, driving, flying or other appropriate means of traversing the right-of-way.

ESI RESPONSE TO § 192.705**Function and Objective**

Patrols are made to observe surface conditions on the gas pipeline and pipeline right-of-way. Through the use of patrols, we are able to monitor line leaks, construction activity, and anything that would endanger the safe operation of the pipeline.

Inspection and Record keeping

The Ethylene Terminal/Unit Manager is responsible for the patrol inspection of the pipelines and shall make a record of each inspection.

The Ethylene Terminal/Unit Manager or designee shall patrol the Right-of-Ways and observe for the following conditions:

- (a) Leaks - Instrumentation LEL or other instrumentation that is capable of detecting releases.
 - (1) Leak surveys shall be conducted using a Lower Explosion Limit (%LEL) Gas Detector calibrated to % LEL of the gas that is being measured or other instrumentation that is capable of detecting releases.
 - (2) The leak survey shall be conducted at a minimum of twice per year not to exceed 7 1/2 months between inspections.
 - (3) The survey is to be conducted by the Ethylene Terminal/Unit Manager or designated to trained personnel.
- (b) Construction activity.
- (c) Any other activity that could affect a safe operation.
- (d) Highway/railway markings (where deemed necessary to identify locations of transmission lines to reduce the possibility of damage).

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- (e) Class location changes

Right-of-Way Maintenance

The Ethylene Terminal/Unit Manager is responsible for the clearing and maintaining of the right-of-way.

Frequency

The Ethylene Terminal/Unit Manager shall conduct inspections a minimum of one each quarter of the year (every three months, four times per year, not to exceed 4-1/2 months between patrols). Reference "Pipeline Patrol/Leak Inspection Procedure" DOT-002 for more information.

Documentation**Location Filed**

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Pipeline Patrol/Marker/Leak Inspection E-1DOT Files**§ 192.706 Transmission Lines: Leakage Surveys**

- (a) Each operator of a transmission line shall provide for periodic leakage surveys of the line in its operating and maintenance plan.
- (b) Leakage surveys of a transmission line must be conducted at intervals not exceeding 15 months, but at least once each calendar year. However, in the case of a transmission line which transports gas in conformity with § 192.625 without an odor or odorant, leakage surveys using leak detector equipment must be conducted--
- (1) In Class 3 locations, at intervals not exceeding 7½ months, but at least twice each calendar year; and

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- (2) In Class 4 locations, at intervals not exceeding 4½ months, but at least four times each calendar year.

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Pipeline Patrol/Marker/Leak Inspection E-1DOT Files**ESI RESPONSE TO § 192.706****Inspection and Record keeping:**

The Ethylene Terminal/Unit Manager shall patrol the Right-of-Ways and observe for the following conditions:

- (a) **Leaks - (discoloration of vegetation, ice balls)**
- (1) Leak surveys shall be conducted using a Lower Explosion Limit (%LEL) Gas Detector calibrated to the % LEL of the gas being measured or other instrumentation that is capable of detecting releases.
 - (2) The leak survey shall be conducted at a minimum of twice per year not to exceed 7 1/2 months between inspections.
 - (3) The survey is to be conducted by the Terminal/Unit Manager or designated to trained personnel.

For more information reference "Pipeline/Leak Inspection Procedure" DOT-002.

§ 192.707 Line Markers for Mains and Transmission Lines

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- (a) *Buried pipelines.* Except as provided in paragraph (b) of this section, a line marker must be placed and maintained as close as practical over each buried main and transmission line:
- (1) At each crossing of a public road and railroad; and
 - (2) Wherever necessary to identify the location of the transmission line or main to reduce the possibility of damage or interference.
- (b) *Exceptions for buried pipelines.* Line markers are not required for buried mains and transmission lines--
- (1) Located offshore or at crossing of or under waterways and other bodies or water; or
 - (2) In Class 3 or Class 4 locations--
 - (i) Where placement of a marker is impractical; or
 - (ii) Where a damage prevention program is in effect under § 192.614.
- (c) *Pipelines aboveground.* Line markers must be placed and maintained along each section of a main and transmission line that is located aboveground in an area accessible to the public.
- (d) *Marker warning.* The following must be written legibly on a background of sharply contrasting color on each line marker:

ESI RESPONSE TO §192.707

LINE MARKERS:

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The objective of installing, inspecting, and maintaining various identification signs, markers, is to make the general public aware of the existence and ownership of pipeline facilities in order that both the public and the facilities may be protected against injury and damage. The following shall be written legibly on each marker placed at locations other than waterways:

- (a) The word "WARNING" in white letters at least 1" high with a stroke of 1/4" on a background of blue color;
- (b) The words "GAS PIPELINE" in white letters at least 1" high with a stroke of 1/4" on a background of blue color for the VCM Vapor and Hydrogen pipelines; and;
- (c) The word "WARNING" in white letters at least 1" high with a stroke of 1/4" on a background of blue color;
- (d) The words "ETHYLENE" in white letters at least 1" high with a stroke of 1/4" on a background of blue color for the Ethylene pipelines;

The Company name, telephone number, including area code where the Company can be reached at all times, and other information as deemed appropriate, shall be included and may be incorporated in the signs or affixed to the marker with separate signs, decals, etc. The size and stroke of the lettering specified in paragraphs (a) and (b) of this section shall not be mandatory in heavily developed urban areas.

Aerial Patrol Markers:

Aerial patrol markers shall be located at strategic locations readily visible from patrol aircraft.

- (1) The word "Warning," "Caution," or "Danger" followed by the words "Gas (or name of gas transported) Pipeline" all of which, except for markers in heavily developed urban areas, must be in letters at least one-inch high with one-quarter inch stroke.
- (2) The name of the operator and telephone number (including area code) where the operator can be reached at all times.

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ESI RESPONSE TO §192.707**Buried Pipelines:**

A line marker shall be place and maintained as close as practical over each buried main and transmission pipeline at fence lines, property boundaries, and other locations as often as necessary to indicate the location of the pipeline.

The Ethylene Terminal/Unit Manager or designee is responsible for the proper installation, inspection, and maintenance of these markers and signs.

The inspection shall include an inspection of line markers present at:

- (a) The inspection shall be recorded on the “Patrolling of Liquid and Gas Pipelines” report form.
- (b) Each crossing of public roads and railways.
- (c) Where deemed necessary to identify locations of transmission lines to reduce the possibility of damage.

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Pipeline Patrol/Marker/Leak Insp.Report E-1DOT Files**§ 192.709 Transmission Lines: Record keeping**

Each operator shall maintain the following records for transmission lines for the periods specified;

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- (a) The date, location, and description of each repair made to pipe (including pipe-to-pipe connections) must be retained for as long as the pipe remains in service.
- (b) The date, location, and description of each repair made to parts of the pipeline system other than pipe must be retained for at least 5 years. However, repairs generated by patrols, surveys, inspections, or tests required by subparts L and M of this part must be retained in accordance with paragraph (c) of this section.
- (c) A record of each patrol, survey, inspection, and test required by subparts L and M of this part must be retained for at least 5 years or until the next patrol, survey, inspection, or test is completed, whichever is longer.

ESI RESPONSE TO § 192.709**RECORDS:****(a) Leaks and Line Breaks**

Records will be maintained by the DOT Coordinator to assure adequate reporting of leaks and other emergency circumstances. The information maintained will include construction records, records of hydrostatic testing, and an accounting of the circumstances of all pipeline failures.

(b) Repairs

At any time a leak, imperfection, or damage that impairs the serviceability of a segment of pipeline is evident, immediate temporary measures shall be employed to protect the property and public. As soon as feasible, permanent repairs shall be made. Repairs will be recorded and kept on file.

(c) Line Patrol

ESI will conduct pipeline patrols to observe surface conditions on and adjacent to the right-of-way, indications of leaks, construction activity other than that performed by the ESI, and any other factors affecting the safety and operation of

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the pipeline. Any discoloration of vegetation on the right-of-way or other indication of a leak is to be thoroughly investigated.

This line patrol shall be scheduled by the Ethylene Terminal/Unit Manager. All facilities shall be inspected a minimum of once each quarter of the year (every three months, four (4) times per year) not to exceed 4 1/2 months between patrols. All reports shall be filed and maintained for the life of the pipeline. (See § 192.706.)

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Post-DOT Construction/Maintenance Records A-2DOT Files

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Pipeline Patrol/Marker/Leak Inspection Report E-1DOT Files**§ 192.711 Transmission Lines: General Requirements for Repair Procedures**

- (a) Each operator shall take immediate temporary measures to protect the public whenever:
- (1) A leak, imperfection, or damage that impairs its serviceability is found in a segment of steel transmission line operating at or above 40% of the SMYS; and
 - (2) It is not feasible to make a permanent repair at the time of discovery. As soon as feasible the operator shall make permanent repairs.

ESI RESPONSE TO §192.711

The purpose of pipeline repair and testing is to establish repair and testing procedures for a leak, injurious imperfection, or damage when found in a segment of pipeline.

The following general procedures shall be observed:

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- (a) At any time a leak, imperfection, or damage that impairs the serviceability of a segment of line is evident, immediate temporary measures shall be employed to protect the property and public if it is not feasible to make a permanent repair at the time of discovery.
- (b) As soon as feasible, permanent repairs shall be made as described herein. No operator may use a weld patch as a means of a repair.

Reference ESI's Gas Transmission Pipelines Plant Engineering Specification" DOT-006 section 9.2 Pipeline Maintenance and "Pipeline Repair Procedure" DOT-007.

- (b) Except as provided in § 192.717(a) (3), no operator may use a welded patch as a means of repair.

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Post DOT Construction/Maintenance Records A-2 DOT Files

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Pipeline Patrol/Marker/Leak Inspection E-1 DOT Files

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Safety Related Condition Files B-2 DOT Files

RKPG

DOT Determination Study for Gas F-1 DOT Files

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Liaison With Public Officials General DOT FilesDocumentationLocation Filed

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Louisiana One-Call Records General DOT Files**§ 192.713 Transmission Lines: Permanent Field Repair of Imperfections and Damages**

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- (a) Except as provided in paragraph (b) of this section, each imperfection or damage that impairs the serviceability of a segment of steel transmission line operating at or above 40% of SMYS must be repaired as follows:
- (1) If it is feasible to take the segment out of service, the imperfection or damage must be removed by cutting out a cylindrical piece of pipe and replacing it with pipe of similar or greater design strength.
 - (2) If it is not feasible to take the segment out of service, a full encirclement welded split sleeve of appropriate design must be applied over the imperfection or damage.
 - (3) If the segment is not taken out of service, the operating pressure must be reduced to a safe level during the repair operations.

ESI RESPONSE TO §192.713

If feasible, the pipeline shall be taken out of service and repaired by cutting out a cylindrical piece of pipe and replacing it with a pipe of equal or greater strength. If it is not feasible to remove the pipeline from service, the pipeline will be repaired following the guideline set in the “Pipeline Repair Procedure” DOT-007, section 6.1.8 Methods of Repair - Corroded Areas and 6.1.9 Leak Repair-non-corrosion related. If the line cannot be removed from service, the pressure should be reduced to a pressure that produces a stress less than the 20% of the specified minimum yield strength of the pipe material.

- (b) Submerged offshore pipelines and submerged pipelines in inland navigable waters may be repaired by mechanically applying a full encirclement split sleeve of appropriate design over the imperfection or damage.

NOT APPLICABLE. ESIDOES NOT OPERATE SUBMERGED OFFSHORE PIPELINES OR SUBMERGED INLAND PIPELINES IN NAVIGABLE WATERS.

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Pressure Limiting Device Inspections E-5DOT Files

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Pipeline Data Reference Sheet F-3DOT Files**§ 192.715 Transmission Lines: Permanent Field Repair of Welds**

Each weld that is unacceptable under § 192.241(c) must be repaired as follows:

- (a) If it is feasible to take the segment of transmission line out of service, the weld must be repaired in accordance with the applicable requirements of § 192.245.
- (b) A weld may be repaired in accordance with § 192.245 while the segment of transmission line is in service if:
 - (1) The weld is not leaking;
 - (2) The pressure in the segment is reduced so that it does not produce a stress that is more than 20% of the SMYS of the pipe; and
 - (3) Grinding of the defective area can be limited so that at least 1/8-inch thickness in the pipe weld remains.
- (c) A defective weld which cannot be repaired in accordance with paragraph (a) or (b) of this section must be repaired by installing a full encirclement welded split sleeve of appropriate design.

ESI RESPONSE TO § 192.715

Reference responses to subpart E, §§ 192.241, 192.245 and subpart M § 192.713. For specific information, reference ESI's "Pipeline Repair Procedure DOT-007, "Protection of DOT Regulated Pipelines During Construction and Repair Activities Plant Engineering Specification" DOT-008, and "Gas Transmission Pipelines Plant Engineering Specification" DOT-006.

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RKPG <u>Post-DOT Construction/Maintenance Records</u>	<u>A-2 DOT Files</u>
RKPG <u>Employee Performance Reviews</u>	<u>C-3 DOT Files</u>
RKPG <u>Employees' Qualification Records</u>	<u>C-3 DOT Files</u>
RKPG <u>DOT Determination Study for Gas</u>	<u>F-1 DOT Files</u>

§ 192.717 Transmission lines: Permanent Field Repair of Leaks

- (a) Except as provided in paragraph (b) of this section, each permanent field repair of a leak on a transmission line must be made as follows:
- (1) If feasible, the segment of transmission line must be taken out of service and repaired by cutting out a cylindrical piece of pipe and replacing it with pipe of similar or greater design strength.
 - (2) If it is not feasible to take the segment of transmission line out of service, repairs must be made by installing a full encirclement welded split sleeve of appropriate design, unless the transmission line:
 - (i) Is joined by mechanical couplings; and
 - (ii) Operates at less than 40% of SMYS.
 - (3) If the leak is due to a corrosion pit, the repair may be made by installing a properly designed bolt-on-leak clamp; or, if the leak is due to a corrosion pit and on pipe of not more than 40,000 psi SMYS, the repair may be made by fillet welding over the pitted area a steel plate patch with rounded corners, of the same or greater thickness than the pipe, and not more than one-half of the diameter of the pipe in size.

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- (b) Submerged offshore pipelines and submerged pipelines in inland navigable waters may be repaired by mechanically applying a full encirclement split sleeve of appropriate design over the leak.

ESI RESPONSE TO § 192.717

Only full cylinder section replacement of equal or greater strength is allowed. The use of a welded patch as a repair method is prohibited.

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RKPG <u>Post-DOT Construction/Maintenance Records</u>	<u>A-2 DOT Files</u>
RKPG <u>Employee Performance Reviews</u>	<u>C-3 DOT Files</u>
RKPG <u>Employees' Qualification Records</u>	<u>C-3 DOT Files</u>
RKPG <u>DOT Determination Study for Gas Records</u>	<u>F-1 DOT Files</u>

§ 192.719 Transmission Lines: Testing of Repairs

- (a) Testing of replacement pipe. If a segment of transmission line is repaired by cutting out the damaged portion of the pipe as a cylinder, the replacement pipe must be tested to the pressure required for a new line installed in the same location. This test may be made on the pipe before it is installed.
- (b) Testing of repairs made by welding. Each repair made by welding in accordance with §§ 192.713, 192.715, and 192.717 must be examined in accordance with § 192.241.

ESI RESPONSE TO § 192.719

Reference responses to subpart E, 192.241 and ESI's procedures and plant engineering specifications, "Pipeline Repair Procedure" DOT-007, "Protection of DOT Regulated

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Pipelines During Construction and Repair Activities Plant Engineering Specification” DOT-008, and Gas Transmission Pipelines Plant Engineering Specification” DOT-006.

DocumentationLocation Files

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Post-DOT Construction/Maintenance Records A-2
RKPG
Employees' Qualification Records C-3
RKPG
System Pressure Test Records E-4

DOT Files
DOT Files
DOT Files

§ 192.721 Distribution Systems: Patrolling

NOT APPLICABLE. ESIDOES NOT OPERATE DISTRIBUTION SYSTEMS.

§ 192.723 Distribution Systems: Leakage Surveys and Procedures

NOT APPLICABLE. ESIDOES NOT OPERATE DISTRIBUTION SYSTEMS.

§ 192.725 Test Requirements for Reinstating Service Lines

NOT APPLICABLE. ESIDOES NOT OPERATE SERVICE LINES.

§ 192.727 Abandonment or Inactivation of Facilities

- (a) Each operator shall conduct abandonment or deactivation of pipeline in accordance with the requirements of this section.
- (b) Each pipeline abandoned in place must be disconnected from all sources and supplies of gas; purged of gas; in the case of offshore pipelines, filled with water

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or inert materials; and sealed at the ends. However, the pipeline need not be purged when the volume of gas is so small that there is no potential hazard.

- (c) Except for service lines, each inactive pipeline that is not being maintained under this part must be disconnected from all sources and supplies of gas; purged of gas; in the case of offshore pipelines, filled with water or inert materials; and sealed at the ends. However, the pipeline need not be purged when the volume of gas is so small that there is no potential hazard.
- (d) Whenever service to a customer is discontinued, one of the following must be complied with:
 - (1) 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.
 - (2) A mechanical device or fitting that will prevent the flow of gas must be installed in the service line or in the meter assembly.
 - (3) The customer's piping must be physically disconnected from the gas supply and the open pipe ends sealed.
- (e) If air is used for purging, the operator shall insure that a combustible mixture is not present after purging.
- (f) Each abandoned vault must be filled with a suitable compacted material.

ESI RESPONSE TO § 192.727

Reference ESI's "Pipeline Abandonment/Inactivation Procedure" DOT-033 for more information.

- a. Isolate from all sources of gas.**

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- b. Purge with water or inert gas.
- c. Seal the ends
 - 1. If a flange is available, use a blind flange.
 - 2. If a flange is not available, cut the line and use a weld cap.

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RKPG Plat Maps	A-4	<u>DOT Files</u>
RKPG Pipeline Leak and Spill Report	B-1	<u>DOT Files</u>
RKPG Pipe-to-Soil Potential Survey	D-2	<u>DOT Files</u>
RKPG Casing Status Summary	D-3	<u>DOT Files</u>

§ 192.729 Compressor Stations: Procedures for Gas Compressor Units

Each operator shall establish starting, operating, and shutdown procedures for gas compressor units.

ESI RESPONSE TO § 192.729

ESI has developed operating procedures that cover starting-up, operation, and shutdown (normal & abnormal) of gas compressor units for DOT regulated gas pipelines.

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RKPG List of O, M & E Manuals	C-6	<u>DOT Files</u>

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§ 192.731 Compressor Stations: Inspection and Testing of Relief Devices

- (a) Except for rupture discs, each pressure relieving device in a compressor station must be inspected and tested in accordance with §§ 192.739 and 192.743, and must be operated periodically to determine that it opens at the correct set pressure.
- (b) Any defective or inadequate equipment found must be promptly repaired or replaced.
- (c) Each remote control shutdown device must be inspected and tested at intervals not exceeding 15 months, but at least once each calendar year, to determine that it functions properly.

ESI RESPONSE TO § 192.731

All pressure relieving devices in compressor stations shall be inspected and periodically tested to determine the accuracy of their set pressure. All defective or inadequate equipment shall be repaired or replaced. All remote control shutdown devices shall be inspected and tested at least annually.

Reference ESI's "Gas Transmission Pipelines Engineering Specification" DOT-006, section 9.3 Miscellaneous Facilities Maintenance (9.3.1-9.3.3.5) and 8.3 Compressor Stations.

DocumentationLocation Filed

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Pressure Limiting Device Inspections E-5DOT Files**§ 192.733 Compressor Stations: Isolation of Equipment for Maintenance or Alterations**

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Each operator shall establish procedures for maintaining compressor stations, including provisions for isolating units or sections of pipe and for purging before returning to service.

ESI RESPONSE TO § 192.733

ESI has developed operation procedures that cover isolation of equipment for maintenance or alterations for normal or abnormal conditions. For more information, reference Operation Procedures located in the O, M and E Manuals.

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Operation Procedures C-6DOT Files/ Control Room

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Pipeline Data Reference Sheet F-3DOT Files**§ 192.735 Compressor Stations: Storage of Combustible Materials**

- (a) Flammable or combustible materials in quantities beyond those required for everyday use, or other than those normally used in compressor buildings, must be stored a safe distance from the compressor building.
- (b) Aboveground oil or gasoline storage tanks must be protected in accordance with National Fire Protection Association Standard No. 30.

ESI RESPONSE TO § 192.735

ESI shall follow guidelines in ANSI NFPA30 for protection of aboveground or gasoline storage tanks. This item is addressed in operations and maintenance procedures.

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<u>Safety Related Condition Files</u>	<u>B-2</u>	<u>DOT Files</u>
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<u>Safety/Training Meeting Files</u>	<u>C-2</u>	<u>DOT Files</u>
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<u>New Employee Orientation Files</u>	<u>C-1</u>	<u>DOT Files</u>
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<u>Safety Survey</u>	<u>E-6</u>	<u>DOT Files</u>

§ 192.736 Compressor Stations: Gas Detection

- (a) Not later than September 16, 1996, each compressor building in a compressor station must have a fixed gas detection and alarm system, unless the building is:
- (1) Constructed so that at least 50 percent of its upright side area is permanently open; or
 - (2) Located in an unattended field compressor station of 1,000 horsepower or less.
- (b) Except when shutdown of the system is necessary for maintenance under §192.736(c), each gas detection and alarm system required by this section must:
- (1) Continuously monitor the compressor building for a concentration of gas in air of not more than 25 percent of the lower explosive limit; and
 - (2) If that concentration of gas is detected, warn persons about to enter the building and persons inside the building of the danger.
- (c) Each gas detection and alarm system required by this section must be maintained to function properly. The maintenance must include performance tests.

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§ 192.737 Pipe-Type and Bottle-Type Holders: Plan for Inspection and Testing

NOT APPLICABLE. ESIDOES NOT OPERATE PIPE-TYPE OR BOTTLE TYPE HOLDERS.

§ 192.739 Pressure Limiting and Regulating Stations: Inspection and Testing

Each pressure limiting station, relief device (except rupture discs), and pressure regulating station and its equipment must be subjected at intervals not exceeding 15 months, but at least once each calendar year, to inspections and tests to determine that it is--

- (a) In good mechanical condition;
- (b) Adequate from the standpoint of capacity and reliability of operation for the service in which it is employed;
- (c) Set to function at the correct pressure; and
- (d) Properly installed and protected from dirt, liquids, or other conditions that might prevent proper operation.

ESI RESPONSE TO § 192.739

Reference ESI's response to § 192.731 of this manual and ESI's "Gas Transmission Pipelines Plant Engineering Specification", DOT-006, sections 8.4 Control and Limiting of Gas Pressure, 9.3.2 Maintenance of Pressure Limiting and Pressure Regulating Stations.

<u>Documentation</u>		<u>Location Filed</u>
RKPG		
Operator Log/Pressure Charts	E-2	<u>DOT Files</u>
RKPG		
Pressure Limiting Device Inspections	E-5	<u>DOT Files</u>

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§ 192.741 Pressure Limiting and Regulating Stations: Telemetry or Recording Gages

NOT APPLICABLE. ESIDOES NOT OPERATE DISTRIBUTION SYSTEMS.

§ 192.743 Pressure Limiting Regulating Stations: Testing of Relief Devices

- (a) If feasible, pressure relief devices (except rupture discs) must be tested in place, at intervals not exceeding 15 months, but at least once each calendar year, to determine that they have enough capacity to limit the pressure on the facilities to which they are connected to the desired maximum pressure.
- (b) If a test is not feasible, review and calculation of the required capacity of the relieving device at each station must be made at intervals not exceeding 15 months, but at least once each calendar year, and these required capacities compared with the rated or experimentally determined relieving capacity of the device for the operating conditions under which it works. After the initial calculations, subsequent calculations are not required if the review documents that parameters have not changed in a manner which would cause the capacity to be less than required.
- (c) If the relieving device is of insufficient capacity, a new or additional device must be installed to provide the additional capacity required.

ESI RESPONSE TO § 192.743

Pressure relief devices shall be installed and maintained to assure the MAOP of station piping and equipment is not exceeded by more than 10%. All pressure relieving devices shall be inspected and periodically tested to determine the accuracy of their set pressure. All defective or inadequate equipment shall be repaired or replaced. All remote control devices shall be inspected and tested annually. For more information reference ESI's "Gas

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Transmission Pipelines Plant Engineering Specifications” DOT-006 section 9.3
Miscellaneous Facilities Maintenance.

DocumentationLocation Filed

RKPG
Pressure Limiting Device Inspections E-5
RKPG
DOT Determination Study for Gas F-1

DOT Files

DOT Files

§ 192.745 Valve Maintenance: Transmission Lines

Each transmission line valve that might be required during any emergency must be inspected and partially operated at intervals not exceeding 15-months, but at least once each calendar year.

ESI RESPONSE TO § 192.745

At intervals not to exceed 15 months but at least once each calendar year, all main line block valves shall be completely or partially operated and returned to their original position. During the operation of each valve, its operating condition shall be checked and corrections shall be made where necessary. Such items as condition of the gears, ease of operation, condition and position of indicator, water tightness of seals around indicator shall be checked. Reference section 9.3.3 Valve Maintenance in ESI’s “Gas Transmission Pipelines Engineering Specification” DOT-006 and “Maintenance for DOT Regulated Valves Procedure” DOT-004 for more information.

DocumentationLocation Filed

RKPG
Post-DOT Construction/Maintenance Records A-2
RKPG
Operator Log/Pressure Charts E-2
RKPG
Block Valve Inspection Reports E-3

DOT Files

DOT Files

DOT Files

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§ 192.747 Valve Maintenance: Distribution Systems

NOT APPLICABLE. ESIDOES NOT OPERATE DISTRIBUTION SYSTEMS.

§ 192.749 Vault Maintenance

NOT APPLICABLE. ESIDOES NOT OPERATE VAULTS

§ 192.751 Prevention of Accidental Ignition

Each operator shall take steps to minimize the danger of accidental ignition of gas in any structure or area where the presence of gas constitutes a hazard of fire or explosion, including the following:

- (a) When a hazardous amount of gas is being vented into open air, each potential source of ignition must be removed from the area and a fire extinguisher must be provided.
- (b) Gas or electric welding or cutting may not be performed on pipe or on pipe components that contain a combustible mixture of gas and air in the area of work.
- (c) Post warning signs, where appropriate.

ESI RESPONSE TO § 192.751

Appropriate action shall be taken to minimize the danger of accidental ignition of gas in any structure or area where the presence of gas constitutes a hazard of fire or explosion. Each supervisor shall take steps to minimize the danger of accidental ignition under at least the following conditions:

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- (1) Before introducing any source or ignition or performing any work in such location, tests shall be conducted with appropriate instruments to assure that a hazardous atmosphere is not present in the area or structure.
- (2) When a hazardous amount of gas is being vented into open air, each potential source of ignition must be removed from the area and a fire extinguisher must be provided.
- (3) Gas or electric welding or cutting may not be performed on pipe or pipe components that contain a combustible mixture of gas and air in the area of work.
- (4) Post warning signs where appropriate.

<u>Documentation</u>		<u>Location Filed</u>
RKPG		
<u>Safety Related Condition Files</u>	<u>B-2</u>	<u>DOT Files</u>
RKPG		
<u>Safety/Training Meeting Files</u>	<u>C-2</u>	<u>DOT Files</u>
RKPG		
<u>New Employee Orientation Files</u>	<u>C-1</u>	<u>DOT Files</u>
RKPG		
<u>Contractor Orientation</u>	<u>General</u>	<u>DOT Files</u>
RKPG		
<u>Pipeline Patrol/Marker Leak Insp. Reports</u>	<u>E-1</u>	<u>DOT Files</u>
RKPG		
<u>Operator Log/Pressure Charts</u>	<u>E-2</u>	<u>DOT Files</u>
RKPG		
<u>Safety Survey</u>	<u>E-6</u>	<u>DOT Files</u>

§ 192.753 Caulked Bell and Spigot Joints

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NOT APPLICABLE. ESIDOES NOT UTILIZE CAULKED BELL SPIGOT JOINTS.

§ 192.755 Protecting Cast-Iron Pipelines

NOT APPLICABLE. ESIDOES NOT UTILIZE CAST-IRON PIPELINES FOR DOT.

Engineering Services, LP