

APPENDIX A

FLOWLINE REGULATIONS (1100 Series)

1101. REGISTRATION REQUIREMENTS

1101.a. Flowline and Crude Oil Transfer Line Statuses.

- (1) Pre-Commissioned Status means a constructed pipeline that:
 - A. Has not been connected or opened to sources of hazardous liquid, produced water, or natural or other gas;
 - B. Is isolated from active status assets;
 - C. Does not contain hazardous liquid, produced water, or natural or other gas; and
 - D. Is OOSLAT.
- (2) Active Status means a pipeline that is engaged in or available for normal operations and is connected or open to sources of hazardous liquid, produced water, or natural or other gas or contains these products. This status includes pipelines that
 - A. Are undergoing repair or maintenance and are locked out/tagged out in accordance with OSHA requirements; and
 - B. Are shut-in, meaning that the line contains fluids associated with oil and gas operations, but the pipeline is not flowing fluids. If an off-location flowline or a crude oil transfer line has been shut-in for more than 90 days, the operator must apply tag out devices to the risers.
- (3) Out-of-Service Status means a pipeline that the operator has ceased normal operations by
 - A. Isolating or disconnecting it from sources of hazardous liquid, produced water, or natural or other gas;
 - B. Purging it of combustibles and produced water; and
 - C. applying OOSLAT.
- (4) Abandoned Status means a pipeline that has been permanently removed from service in accordance with Rule 1105.

1101.b. Off-Location Flowline Registration.

- (1) An operator must register an off-location flowline ~~constructed on or after May 1, 2018,~~ by submitting a Flowline Report, Form 44, to the Director within 90 days after the flowline is placed in active status~~placed into service. An off-location flowline in existence prior to May 1, 2018, must be registered by October 31, 2019.~~ An off-location flowline registered as part of a produced water transfer system or as part of a flowline system is not subject to this requirement.
- (2) Registration Requirements. For off-location flowlines registered pursuant to this section, operators must include the following information:
 - A. ~~For off location flowlines constructed on or after May 1, 2018, operators must include the following information:-~~
 - B.A. _____ A geodatabase containing the pipeline alignment in the North American Datum of 1983 (NAD 83) with the following attributes: fluid type, pipe material type and pipe size in a format approved by the Director;

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~~C.~~

~~D-B.~~ _____ Bedding materials used in construction;

~~C.~~ Pipe material;

~~D.~~ Maximum flowline diameter;

~~E.~~ Fluids that will be transferred;

~~F.~~ The maximum anticipated operating pressure, testing pressure, test date and chart of successful pressure test;

~~A layout drawing sufficient to identify the alignment of the flowline, associated oil and gas locations, and existing and proposed pipelines related to the oil and gas locations; and~~

~~G.~~ Identify and describe the starting and ending oil and gas locations;_

~~H.~~ Description of corrosion protection; and

~~I.~~ Description of the integrity management system utilized in accordance with 1104.f.

- (3) For off-location flowlines in existence prior to May 1, 2018, and already registered with the Commission, operators must submit, on or before December 1, 2020, a geodatabase containing the pipeline alignment in the North American Datum of 1983 (NAD 83) with the following attributes: fluid type, pipe material type, and pipe size in a format approved by the Director, to the extent such information is or becomes known by the operator or can be acquired from such relevant records in the possession of the operator or its immediate predecessor in interest include in their registration:.

~~i. the information set forth in 2.(A)i-viii above, and~~

~~ii. the latitude and longitude of the risers.~~

~~(5)~~ Within ~~30-90~~ days of modifying the alignment of a registered off-location flowline, the operator must report the change to the Director by submitting a Flowline Report, Form 44.

~~(6)~~ If a document is executed after May 1, 2018, that grants a right of access or easement to locate an off-location flowline on lands, then either the document itself or a memorandum or notice of such document must be recorded by the operator in the office of the county clerk and recorder of the county where the lands are located. If the document contains a legal description or map of the access or easement, then the memorandum or notice must include the legal description or map. Upon the surface owner's request, the operator shall provide a copy of the recorded document to the surface owner.

1101.c. Flowline System Registration

~~(1)~~ An operator may register a flowline system, in lieu of registering the individual off-location flowlines or registering the individual produced water flowlines as part of a produced water transfer system, by submitting a Flowline Report, Form 44, to the Director within 90 days after the flowline system is placed into service-active status.

~~(2)~~ Registration Requirements: Operators must include the following information:

~~A.~~ A geodatabase containing the pipeline alignment(s) in the North American Datum of 1983

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(NAD 83) with the following attributes: fluid type, pipe material type, and pipe size in a format approved by the Director;

B. Bedding materials used in construction;

C. Description of corrosion protection;

D. Description of the integrity management system utilized in accordance with 1104.f.: and

E. Description of the construction method used for public by-ways, road crossings, sensitive wildlife habitats, sensitive areas, and natural and manmade watercourses (i.e., open trench, bored and cased, or bored only).

(3) Within 90 days of modifying the alignment of a registered off-location flowline, the operator must report the change to the Director by submitting a Flowline Report, Form 44.

1101.d. Domestic Tap Registration.

- (1) Within ~~3090~~-days of installation or discovery of a domestic tap connected to the operator's flowline, an operator must submit a Flowline Report, Form 44, to the Director to register the tap. ~~Operators must register known domestic taps that were installed prior to May 1, 2018, by submitting a Flowline Report, Form 44, to the Director on or before October 31, 2019.~~ The registration must include the latitude and longitude of the flowline or wellhead connection for the domestic tap and the street address or the latitude and longitude of the point of delivery.
- (2) For domestic taps installed after May 1, 2018, an operator must register the domestic tap pursuant to subpart (1) and notify the domestic tap owner in writing that the domestic tap must:
 - A. Be locatable by a tracer line or location device placed adjacent to or in the trench of the domestic tap to facilitate locating it, and a tracer wire or metallic device for locating must be resistant to corrosion damage;
 - B. Be installed by a licensed plumber;
 - C. Have properly-sized regulators at the point the tap connects to the operator's flowline and at the point the tap delivers gas to the dwelling or structure where the gas is utilized;
 - D. Include all necessary piping to accommodate appropriate odorization, and gas utilization metering equipment;
 - E. Be installed using materials designed for gas service and appropriate cover and bedding material in accordance with industry standards; and
 - F. Have markers that are installed and maintained at the point the domestic tap connects to the operator's flowline and at the point it delivers gas to the dwelling or structure where the gas is utilized consistent with 1102.g.
- (3) An operator must supply odorant to the domestic tap owner at the time of installation until abandonment of the domestic tap.
- (4) Within 30 days of realigning, abandoning, ~~or~~ discovering, or receiving notification that a registered domestic tap has been re-aligned or abandoned, the operator must report the change to the Director by submitting a Flowline Report, Form 44.

1101.ee. Crude Oil Transfer Line and Produced Water Transfer System Registration.

- (1) **Registration.** At least 10 days before beginning construction of a crude oil transfer line or

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produced water transfer system, an operator must register it by submitting a Flowline Report, Form 44, to the Director. ~~A produced water transfer system registered as part of a flowline system is not subject to this requirement. The submittal must include a layout drawing sufficient to show its route, its crossings of public by-ways, road crossings, sensitive wildlife habitats, sensitive areas and natural and manmade watercourses and the surrounding topography.~~

For a crude oil transfer line or produced water transfer system constructed before May 1, 2018, and already registered with the Commission, operators must submit:

A. A geodatabase as required by (2)A., below, on or before December 1, 2020; and

B. Update any information required by (2)B., below, the operator must register it by submitting a Flowline Report, Form 44, to the Director by October 31, 2019. The submittal must include the information specified in section (2) below, to the extent such information is or becomes known by the operator or can be acquired from such relevant records in the possession of the operator or its immediate predecessor in interest.

(2) **As-built Specifications.** For a crude oil transfer line or produced water transfer system ~~placed into service after May 1, 2018~~, the operator must submit a Flowline Report, Form 44, within 30-90 days of placing it into service active status to include the following information:

~~A. A layout drawing of the facility that sufficiently shows the surrounding topography, location of all associated above-ground equipment and the pipeline centerline from the point of origin to the termination point;~~

B.A. _____ A geodatabase containing the pipeline alignment and isolation valves in the North American Datum of 1983 (NAD 83) with the following attributes: fluid type, pipe material type and pipe size in a format approved by the Director;

C.B. _____ Specifications:

- i. Bedding materials used in construction;
- ii. Fluids that will be transferred;
- iii. The maximum anticipated operating pressure, testing pressure, test date, and chart of successful pressure test;
- iv. The pipe description (i.e., maximum size, grade, wall thickness, coating, standard dimension ratio, and material);
- v. The burial depth of the crude oil transfer line or produced water transfer system;
- vi. Description of corrosion protection;
- vii. Description of the integrity management system utilized in accordance with 1104.f.;
- viii. Description of the construction method used for public by-ways, road crossings, sensitive wildlife habitats, sensitive areas and natural and manmade watercourses (i.e., open trench, bored and cased, or bored only); and
- ix. Copy of the operator's crude oil leak protection and monitoring plan prepared in accordance with 1104.g. If an operator has previously filed with the Commission a current copy of its leak protection and monitoring plan it may cross reference the oil and gas facility or location for which the leak protection and monitoring plan was previously filed with reference to the API, facility identification number, or COGCC document number.

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- ~~DC~~. An affidavit of completion stating the operator designed and installed the crude oil transfer line or produced water transfer system in compliance with the 1100 Series rules.
- (3) Within ~~30-90~~ days of modifying the alignment of a registered crude oil transfer line, the operator must report the change to the Director by submitting a Flowline Report, Form 44.
 - (4) For produced water transfer systems that have had system alignment changes during the preceding year, an operator must submit a Flowline Report, Form 44, by May 1st of each year to report the new alignment.
 - (5) If a document is executed after May 1, 2018, that grants a right of access or easement to locate a crude oil transfer line or produced water system on lands, then either the document itself or a memorandum or notice of such document must be recorded by the operator in the office of the county clerk and recorder of the county where the lands are located. If the document contains a legal description or map of the access or easement, then the memorandum or notice must include the legal description or map. Upon the surface owner's request, the operator shall provide a copy of the recorded document to the surface owner.

1101.d.f. Disclosure of ~~Confidential~~ Form 44 Data ~~to Local Governments~~.

- (1) The Director will make Form 44 geodatabase information for off-location flowlines, crude oil transfer lines, and produced water transfer systems available on the Commission's publicly accessible online map.
- (2) Upon request from a local governmental designee(s) of the jurisdiction(s) through which the flowline passes, and subject to executing a confidentiality agreement and the provisions of the Colorado Open Records Act, the Commission will provide to the local governmental designee(s) the geodatabase information submitted with a Form 44, and any periodic updates received, for all off-location flowlines, crude oil transfer lines and produced water transfer systems within that local government's jurisdiction. The sole purpose for providing the geodatabase information is to assist local governments with their emergency management, ~~and~~ planning, and development. The Commission will keep all such geodatabase information confidential to the extent allowed by the Colorado Open Records Act.

1102. FLOWLINE AND CRUDE OIL TRANSFER LINE REQUIREMENTS

1102.a. **Material.** Materials for pipe and pipe components must be:

- (1) Able to maintain the structural integrity of the flowline or crude oil transfer line under anticipated operating temperature, pressure, and other operating conditions; and
- (2) Compatible with the substances to be transported.

1102.b. **Applicable Technical Standards.** Each component of a flowline or crude oil transfer line installed or repaired ~~on or after May 1, 2018,~~ must meet one of the following standards appropriate for the component:

- (1) American Society of Mechanical Engineers, Pipeline Transportation Systems for Liquids and Slurries, 2016 Edition (ASME B31.4-2016), and no later editions of the standard. ASME B31.4-2016 is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. Additionally, ASME B31.4-2016 may be examined at any state publications depository library and is available to purchase from the ASME. The ASME can be contacted at Two Park Avenue, New York, NY 10016-5990, 1-800-843-2763;
- (2) ASME Gas Transmission and Distribution Piping Systems, 2016 Edition (ASME B31.8-2016), and no later editions of the standard. ASME B31.8-2016 is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120

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Lincoln Street, Suite 801, Denver, Colorado 80203. Additionally, ASME B31.8-2016 may be examined at any state publications depository library and is available to purchase from the ASME. The ASME can be contacted at Two Park Avenue, New York, NY 10016-5990, 1-800-843-2763;

- (3) ASME Process Piping, 2016 Edition (ASME 31.3-2016), and no later editions of the standard. ASME 31.3-2016 is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. Additionally, ASME 31.3-2016 may be examined at any state publications depository library and is available to purchase from the ASME. The ASME can be contacted at Two Park Avenue, New York, NY 10016-5990, 1-800-843-2763;
- (4) API Specification 15S, Spoolable Reinforced Plastic Line Pipe, Second Edition, March 2016 (API Specification 15S), and no later editions of the standard. API Specification 15S is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. In addition, API Specification 15S may be examined at any state publications depository library and is available from API at 1220 L Street, NW Washington, DC 20005-4070, 1-202-682-8000;
- (5) API RP 15TL4 (R2018) Recommended Practice for Care and Use of Fiberglass Tubulars, Second Edition, March 1999 together with API Specification 15HR, High-pressure Fiberglass Line Pipe, Fourth Edition, February 2016 (API Specification 15HR), and no later editions of the standards. API RP 15TL4 and API Specification 15HR is-are available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. In addition, API RP 15TL4 and API Specification 15HR may be examined at any state publications depository library and is-are available from API at 1220 L Street, NW Washington, DC 20005-4070, 1-202-682-8000; or
- (6) API RP 15TL4 (R2018) Recommended Practice for Care and Use of Fiberglass Tubulars, Second Edition, March 1999, together with API Specification 15LR (R2013), Low Pressure Fiberglass Line Pipe and Fittings, Seventh Edition, August 2001 (API Specification 15LR), and no later editions of the standards. API RP 15TL4 and API Specification 15LR is-are available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. In addition, API RP 15TL4 and API Specification 15LR may be examined at any state publications depository library and is-are available from API at 1220 L Street, NW Washington, DC 20005-4070, 1-202-682-8000.

1102.c. **Design.** Each component of a flowline or crude oil transfer line must be designed to:

- (1) Prevent failure by minimizing internal or external corrosion and the effects of transported fluids;
- (2) Withstand maximum anticipated operating pressures and other internal loadings without impairment;
- (3) Withstand anticipated external pressures and loads that will be imposed on the pipe after installation;
- (4) Allow for line maintenance, periodic line cleaning, and integrity testing; and
- (5) Have adequate controls and protective equipment to prevent it from operating above the maximum operating pressure.

1102.d. **Installation.**

- (1) Installation crews must be trained in flowline or crude oil transfer line installation practices for which they are tasked to perform.
- (2) All workers performing welding on steel lines in pressure service, must be certified in accordance with:

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- A. API Standard 1104, Welding of Pipelines and Related Facilities, Twenty First Edition, September 2013 and no later editions of the standard. API Standard 1104 is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. In addition, API Standard 1104-15S may be examined at any state publications depository library and is available from API at 1220 L Street, NW Washington, DC 20005-4070, 1-202-682-8000; or-
 - B. ASME BPV Code 2017 Section IX - Welding, Brazing and Fusing Qualification and no later editions of the code. The Section is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. In addition, the ASME BPV Code may be examined at any state publications depository library The ASME BPV Code is available to purchase from the ASME at Two Park Avenue, New York, NY 10016-5990, 1-800-843-2763.
- (3) Non-destructive testing of welds for newly constructed steel off-location flowlines or steel crude oil transfer lines must be done in accordance with one of the following:
- A. Those standards established by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration pursuant to 49 C.F.R. § 192.243 and 49 C.F.R. § 195.234, in existence as of the date of this regulation, and no later amendments. 49 C.F.R. § 192.243 and 49 C.F.R. § 195.234 are available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. Additionally, 49 C.F.R. § 192.243 and 49 C.F.R. § 195.234 may be found at <https://www.phmsa.dot.gov>; or-
 - B. One of the standards set forth in Section 1102.b. or 1102.d (2)A. and B. above.
- (4) Non-destructive testing is not required for repairs of existing steel off-location flowlines or steel crude oil transfer lines.
- (5) No pipe or other component may be installed unless it has been visually inspected at the site of installation to ensure that it is not damaged.
- (6) Pipes must be locatable by a tracer line or location device placed adjacent to or in the trench of a buried nonmetallic flowline or crude oil transfer line. Any installed tracer wire or metallic device for locating must be resistant to corrosion damage. Caution tape must be placed in the trench one foot above the buried pipe.
- (7) Flowlines or crude oil transfer lines must be installed in a manner that minimizes interference with agriculture, road and utility construction, wildlife resources, the introduction of secondary stresses, and the possibility of damage to the pipe.
- (8) The pipe must be handled in a manner that minimizes stress and avoids physical damage to the pipe during stringing, joining, or lowering in. During the lowering in process the pipe string must be properly supported so as not to induce excess stresses on the pipe or the pipe joints or cause weakening or damage to the outer surface of the pipe.
- (9) Flowlines or crude oil transfer lines that cross a municipality, county, or state graded road must be bored unless the responsible governing agency specifically permits the operator to open cut the road.
- (10) Flowlines and crude oil transfer lines must be installed pursuant to the manufacturer's procedures and—practices specifications. In the absence of applicable manufacturer's procedures specifications, the following requirements apply:
- A. Pipeline trenches must be constructed to allow the pipeline to rest on undisturbed native soil and provide continuous support along the length of the pipe;

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- B. Trench bottoms must be free of rocks greater than two inches in diameter, debris, trash, and other foreign material not required for pipeline installation; and
 - C. Over excavated trench bottoms must be backfilled with appropriate material and compacted prior to installation of the pipe to provide continuous support along the length of the pipe.
- (11) The width of the trench must provide adequate clearance on each side of the pipe. Trench walls must be excavated to ensure minimal stuffing-sloughing of sidewall material into the trench. Subsoil from the excavated trench must be stockpiled separately from previously stripped topsoil.
- (12) A flowline or crude oil transfer line trench must be backfilled in a manner that provides firm support under the pipe and prevents damage to the pipe and pipe coating from equipment or from the backfill material. Sufficient backfill material must be placed in the pipe springline to provide long-term support for the pipe. Backfill material that will be within two feet of the pipe must be free of rocks greater than two inches in diameter and foreign debris. Backfilling material must be compacted as appropriate during placement in a manner that provides support for the pipe and reduces the potential for damage to the pipe and pipe joints.
- (13) Flowlines and crude oil transfer lines that traverse sensitive wildlife habitats or sensitive areas, such as wetlands, streams, or other surface waterbodies, must be installed in a manner that minimizes impacts to these areas.

1102.e. **Cover for Subsurface Flowlines and Crude Oil Transfer Lines.**

- (1) All installed flowlines and crude oil transfer lines must have cover sufficient to protect them from damage. On cropland, all flowlines must have a minimum cover of three (3) feet.
- (2) Where an underground structure, geologic, or other uncontrollable condition prevents a flowline or crude oil transfer line from being installed with minimum cover, or when there is a written agreement between the surface owner and the operator specifying flowline cover depth of less than minimum cover, it may be installed with less than minimum cover or above-ground, if:
- A. The exposed pipe and components are designed to withstand anticipated conditions;
 - B. The operator installs it in compliance with manufacturer's specifications; and
 - C. The operator installs it in a manner to withstand anticipated external loads.
- (2)(3) Operators must protect above-ground flowlines or crude oil transfer lines from vehicular traffic by installing the lines a safe distance from public roads or installing barricades.

1102.f. **Top Soil Management and Reclamation.**

- (1) Site preparation and stabilization must be performed in accordance with Rule 1002 for trenches greater than twelve inches in width. When flowlines or crude oil transfer lines cross croplands, unless waived by the surface owner, the operator must segregate topsoil while trenching, and backfill trenches so that the soils must be returned to their original relative positions and contour. This requirement to segregate and backfill topsoil does not apply to trenches which are twelve ~~(12)~~ inches or less in width. Operator must make reasonable efforts to install flowlines or crude oil transfer lines parallel to crop irrigation rows on flood irrigated land.
- (2) All trenches must be maintained in order to correct subsidence and reasonably minimize erosion.
- (3) Interim and final reclamation, including revegetation, must be performed in accordance with the applicable 1000 Series rules.

1102.g. **Marking.**

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- (1) ~~In Designated Setback Locations, and w~~here crossing public rights-of-way or utility easement crossings, an operator must install and maintain markers that identify the location of flowlines or crude oil transfer lines. These markers must be placed in a manner to reduce the possibility of damage or interference with surface use but need not be placed where impracticable or if the landowner does not grant permission.
- (2) Operators must install a marker consistent with 49 C.F.R. § 195.410 in existence as of the date of this regulation and does not include later amendments or ~~The the~~ marker must include the following language:

"Warning", "Caution" or "Danger" followed by the words "gas or petroleum (or name of gas or fluid transported) in the flowline (or crude oil transfer line)" along with the name of the operator and the telephone number where the operator can be reached at all times. The letters must be legible, written on a background of sharply contrasting color and on each side with at least one (1) inch high with one-quarter (¼) inch stroke.

49 C.F.R. § 195.410 is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. Additionally, the regulation may be examined at any state publications depository library or found at <https://www.phmsa.dot.gov>.

1102.h. **Inspection.** A crude oil transfer line ~~constructed after May 1, 2018,~~ must be inspected by a third-party inspector who is a Professional Engineer registered with the State of Colorado or who is working under the supervision of a Professional Engineer registered with the State of Colorado before being placed into ~~service~~active status. The third-party inspector must be trained in the installation of crude oil transfer lines. The operator must maintain inspection records, including at a minimum:

- (1) The third-party inspector's certification that the crude oil transfer line was installed as prescribed by the manufacturer's specifications and in accordance with the requirements of the 1100 Series rules; and
- (2) The third-party inspector's training qualifications.

1102.i. **Maintenance.**

- (1) Each operator must take reasonable ~~precautions~~ actions to prevent failures and leakage, and minimize corrosion of flowlines and crude oil transfer lines.
- (2) Whenever an operator discovers any condition that could adversely affect the safe and proper operation of a flowline or crude oil transfer line, the operator must correct the condition as soon as possible. However, if the condition presents an immediate hazard to persons or property, the operator may not operate the affected segment until the operator has corrected the condition.
- (3) If the flowline or crude oil transfer line lacks integrity, the operator must immediately investigate, report, and remediate any Spills or Releases in accordance with the 900 Series rules.
- (4) Any flowline or crude oil transfer line undergoing maintenance must be locked out and tagged out in accordance with OSHA requirements. ~~not actively in use must have isolation valves locked and tagged out.~~

1102.j. **Repair.**

- (1) Each operator must make repairs in a safe manner that prevents injury to persons and damage to equipment and property.
- (2) An operator may not use any pipe, valve, or fitting to repair a flowline or crude oil transfer line unless the component meets the installation requirements of the 1100 Series rules for the repaired

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segment. For a flowline or crude oil transfer line installed prior to May 1, 2018 that undergoes a major modification or change in ~~service status~~ after May 1, 2018, the segment repaired must satisfy all applicable requirements of the 1100 Series rules before an operator can return the flowline or crude oil transfer line ~~active status to service~~.

- (3) An operator may not ~~use install or operate~~ any pipe, valve, or fitting for replacement or repair of a flowline or crude oil transfer line unless it is designed to the maximum anticipated operating pressure.
- ~~(4)~~ An operator must verify the integrity of any ~~replaced or~~ repaired segment of flowline or crude oil transfer line before returning it to ~~service use~~.
- ~~(5)~~ An operator must conduct a repair in accordance with the manufacturer's specifications or ASME "Repair of Pressure Equipment and Piping" (ASME PCC-2-2018) and no later editions of the standard. The ASME standard is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. Additionally, the standard may be examined at any state publications depository library. The ASME standard is available to purchase from ASME at Two Park Avenue, New York, NY 10016-5990, 1-800-843-2763.
- ~~(6)~~ Each segment of pipe, valve, or fitting that becomes unsafe must be replaced or repaired before returning it to service.
- ~~(4)(7)~~ Any flowline or crude oil transfer line undergoing repair must be locked out and tagged out in accordance with OSHA requirements.

1102.k. Operating requirements.

- (1) No flowline or crude oil transfer line may be ~~in active status and~~ operated until it has demonstrated compliance with Rule 1104, Integrity Management.
- (2) The maximum operating pressure for a flowline or crude oil transfer line may not exceed the manufacturer's specifications of the pipe or the manufacturer's specifications of any other component of it, whichever is less.

1102.l. Corrosion control.

- (1) All coated pipe for underground service must be electronically inspected prior to installation using coating deficiency (i.e. scratch, bubble, and "holiday") detectors to check for any faults not observable by visual examination. The detector must operate in accordance with manufacturer's ~~specifications instructions~~ and at a voltage level appropriate for the electrical characteristics of the pipeline being tested. During installation all joints, fittings, and tie-ins must be coated with materials compatible with the coatings on the pipe. Coating materials must:
 - A. Be designed to mitigate corrosion of the buried pipe;
 - B. Have sufficient adhesion to the metal surface to prevent ~~under-under~~ film migration of moisture;
 - C. Be sufficiently ductile to resist cracking;
 - D. Have enough strength to resist damage due to handling and soil stress;
 - E. Support any supplemental cathodic protection; and
 - F. If the coating is an insulating type, have low moisture absorption and provide high electrical resistance.

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- (2) Cathodic protection systems must meet or exceed the minimum criteria set forth in the National Association of Corrosion Engineers (NACE) standard practice SP0169-2007 (formerly RP0169), Control of External Corrosion on Underground or Submerged Metallic Piping Systems, 2007 Edition (NACE SP0169-2007), and no later editions of the standard. NACE SP0169-2007 is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. Additionally, NACE SP0169-2007 may be examined at any state publications depository library and is available to purchase from the NACE. The NACE can be contacted at 15835 Park Ten Place, Houston, Texas 77084, 1-281-228-6200.
- (3) An operator must take prompt remedial action to correct any abnormal internal corrosion. Remedial action may include increased pigging, using corrosion inhibitors, coating the internal pipeline (e.g. an epoxy paint or other plastic liner), or a combination of these actions.

1102.m. **Record Keeping.** An operator must maintain records of flowline or crude oil transfer line size, route, materials, maximum anticipated operating pressure, pressure or other integrity test results, inspections, repairs, and integrity management documentation for the life of the flowline. If an operator relies upon manufacturer's specifications, it is the operator's responsibility to ensure the appropriate specifications are available upon request by the Commission. These records are to be transferred with a change of operator.

1102.n. **One Call participation.** Every operator with underground facilities, as defined in §9-1.5-102(7), C.R.S., including wells and below-ground flowlines and crude oil transfer lines, must become a Tier One member of the Utility Notification Center of Colorado (UNGCCO 811) and participate in Colorado's One Call notification system, the requirements of which are established by §9-1.5-101., C.R.S. et seq.

(1) An operator with underground facilities must confirm ~~include~~ its CO 811UNGC membership code when submitting an Operator Registration, Form 1, Change of Operator, Form 10, Gas Facility Registration, Form 12, or Flowline Report, Form 44, by checking the One Call box.

(2) An operator that does not have underground facilities should check the N/A box for One Call on the appropriate form.

(2) Within 30 days of completing an asset purchase, a transfer, construction or relocation of a flowline or crude oil transfer line, an operator must update the operator's location information with ~~the~~ UNGCCO 811.

(3) An operator's registration with the Commission grants the Director permission to access information the operator submits to UNGC-CO 811 about its oil and gas facilities.

1102.o. **Notification of Requirements for shut-in or out of service off-location flowline or crude oil transfer line for inspection not in service.**

(1) For an active status off-location flowline or crude oil transfer line that has been shut-in for more than 90 days, the operator must:

A. Within 120 days of installing tag out devices, submit a Flowline Report, Form 44, to the Director identifying the off-location or crude oil transfer line or segment thereof that has been locked out and tagged out, the integrity management program that applies, and the outcome of the most recent integrity management test;

B. Continue to comply with the integrity management requirements of Rule 1104; and

C. Pressure test the off-location flowline or crude oil transfer line in accordance with Rule 1104.h. before returning the line to operation; and

D. Not less than 48 hours prior to pressure testing, submit notice with a Field Operations Notice,

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Form 42, to the Director of the scheduled date the pressure test to allow the Commission to inspect during the pressure test.

(2) For an off-location flowline or a crude oil transfer line that has been out of service for more than 90 days, the operator must:

A. Within 120 days of applying OOSLAT, The operator of an off-location flowline or crude oil transfer line must submit a Flowline Report, Form 44, to the Director identifying the off-location flowline or crude oil transfer line or segment thereof that has been taken out of service removed from service and the outcome of the most recent integrity management test. for more than one year. The Form 44 must be submitted within 30 days after the one-year anniversary of the operator removing the line from service.

B. Pressure test the off-location flowline or crude oil transfer line in accordance with Rule 1104.h. before returning the line to active status; and

C. Not less than 48 hours prior to pressure testing, submit notice with a Field Operations Notice, Form 42, to the Director of the scheduled date for the pressure test to allow the Commission to inspect during the pressure test.

1103. FLOWLINE AND CRUDE OIL TRANSFER LINE VALVES

1103.a. Isolation valve repair and maintenance. Operators must annually conduct of one of the following maintenance operations on all isolation valves:

(1) Operators must annually conduct one of the following maintenance operations on all isolation valves:

A. Perform a function test, or

B. Maintain the isolation valve in accordance with its manufacturer's specifications.

(2) Operators must repair or replace isolation valves that are not fully operable.

(3) On-location manifold, peripheral and process piping flowlines are exempt from the annual maintenance operations set forth in this section 1103.a.(1).

1103.b. Any valve, flange, fitting or other component ~~installed after May 1, 2018~~ that is connected to a flowline or crude oil transfer line must have a manufacturer's specification rating that is equal to or greater than the maximum anticipated operating pressure.

1103.c. For all flowlines or crude oil transfer lines constructed after May 1, 2018, an isolation valve must be installed at each of the following locations before operation being placed into active status:

(1) On the suction end and the discharge end of a pump station in a manner that permits isolation of the pump station equipment in the event of an emergency;

(2) On each flowline or crude oil transfer line entering or leaving a breakout tank in a manner that permits isolation of the breakout tank from other facilities;

(3) At locations along a flowline or crude oil transfer line that will minimize damage or pollution from accidental discharge of hydrocarbons or E&P Waste, as appropriate for the terrain in open country or for populated areas;

(4) On each side of a flowline or crude oil transfer line crossing a Rule 317B Public Water System

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defined water supply or a waterbody that is more than 100 feet (30 meters) wide from high-water mark to high-water mark; and

- (5) On each side of a flowline or crude oil transfer line crossing a reservoir storing water for human consumption.

1103.d. Flowlines and crude oil transfer lines constructed before May 1, 2018, must be retrofitted with isolation valves at each of the locations identified in c.(1)-(5) by October 31, 2019. On-location manifold, peripheral and process piping flowlines are exempt from the retrofit provisions set forth in this section 1103.d.

1103.e. Check Valve Installation Requirements.

- (1) Where an operator produces two or more wells through a common flowline, separator, or manifold, the operator must equip each flowline leading from a well to the common flowline, crude oil transfer line, separator, or manifold with a check valve or other comparable reverse flow prevention mechanism.
- (2) The check valve or other comparable reverse flow prevention mechanism must be installed to permit fluids to move from the well to the common flowline, crude oil transfer line, separator, or manifold and to prevent any fluid from entering the well through the flowline.
- (3) The operator must keep all check valves or other comparable reverse flow mechanisms in good working order.
- (4) Upon the Director's request, operators must test the operation of the check valve or other comparable reverse flow mechanism.
- (5) The requirements set forth in subsection (1) and (2) above, apply only to those check valves or comparable reverse flow mechanisms installed after May 1, 2018. Existing check valves or comparable reverse flow mechanisms must comply with subsection (3) and (4) above.

1104. INTEGRITY MANAGEMENT

1104.a. **Initial Pressure Testing Requirements.** Within 90 days Pprior to ~~operating~~placing any newly installed segment of flowline or crude oil transfer line into active status, an operator must test the line to at least maximum anticipated operating pressure and demonstrate integrity. In conducting tests, each operator must ensure that reasonable precautions are taken to protect its employees and the general public. The operator may use a hydrostatic test or conduct the test using inert gas or wellhead pressure sources and well bore fluids, including gas, in accordance with one of the applicable standards set forth in Section 1104.h.(1) below.

1104.b. **Testing upon request.** An operator will conduct an integrity test of any segment of flowline or crude oil transfer line at any time upon request of the Director.

1104.c. **Integrity Management for Active Status Below-ground Dump Lines.** An operator must verify integrity of below-ground dump lines by performing an annual static-head test and a monthly audio, visual, olfactory (AVO) detection survey of the entire line.

1104.d. **Integrity Management for Active Status Above-ground On-location Flowlines.** An operator must verify the integrity of above-ground on-location flowlines by performing a monthly audio, visual, olfactory (AVO) detection survey of the entire line.

1104.e. **Integrity Management for Active Status Below-Ground On-location Flowlines.**

- (1) For any below-ground on-location flowlines not subject to c. or d. above an operator must adhere to one of the following integrity management programs:

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- A. A pressure test to maximum anticipated operating pressure every three years;
 - B. Smart pigging conducted every three years;
 - C. Continuous pressure monitoring; or
 - D. Annual instrument monitoring conducted pursuant to Rule 1104.j.(2).
- (2) If an operator elects to use smart pigging to comply with this section, the smart pig must be able to measure flowline wall thickness, and measure for flowline defects that could affect integrity, including measurement of metal loss. If no geodatabase file of the flowline exists, the smart pig will have GPS capabilities to the extent such capabilities do not materially compromise the ability of the smart pig to conduct the integrity testing required by this section.

1104.f. Integrity Management for Active Status Off-Location Flowlines and Crude Oil Transfer Lines.

- (1) For all-active status off-location flowlines and crude oil transfer lines, but not including off-location produced water flowlines, operators must adhere to one of the following integrity management programs:
- A. An annual pressure test to maximum anticipated operating pressure;
 - B. Continuous pressure monitoring;
 - C. Smart pigging conducted every three years; or
 - D. Annual instrument monitoring conducted pursuant to Rule 1104.j.(2).
- (2) For active status off-location ~~below-below~~-ground produced water flowlines, operators must adhere to one of the following integrity management programs:
- A. An annual pressure test to maximum anticipated operating pressure;
 - B. Continuous pressure monitoring; or
 - C. Smart pigging conducted every three years.
- (3) For active status ~~above-above~~-ground off-location produced water flowlines, operators may use any of the options listed in 1104.f.(2), or monthly AVO inspections.
- (4) If an operator elects to use smart pigging to comply with this section, the smart pig must be able to measure flowline wall thickness, and measure for flowline defects that could affect integrity, including measurement of metal loss. If no geodatabase file of the flowline exists, the smart pig will have GPS capabilities to the extent such capabilities do not materially compromise the ability of the smart pig to conduct the integrity testing required by this section.

1104.g. **Leak protection, detection, and monitoring.**

- (1) All crude oil transfer line operators must prepare and file with the Director a leak protection and monitoring plan with their registration.
- (2) All crude oil transfer line operators must develop and maintain a plan to coordinate the assessment of all inflow and outflow data. The plan must provide for the assessment of inflow and outflow data between the production facility operator, the crude oil transfer line operator, and the operator at the point or points of disposal, storage, or sale. Upon discovery of a material data discrepancy, the discovering party is to notify all other appropriate parties and take action to determine the cause. The crude oil transfer line operator is to retain a record of all material data

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discrepancies.

1104.h. Pressure Test Requirements.

(1) Initial Pressure Test.

- A. ~~For Before putting a flowlines and-or~~ Crude Oil Transfer Line ~~into active status installed after May 1, 2018~~, the initial pressure test must be conducted for a minimum of four hours or in compliance with the manufacturer's specifications and in accordance with the provisions of one of the following applicable standards
- i. American Society of Mechanical Engineers (ASME), Process Piping, 2016 Edition (ASME 31.3-2016) and no later edition;
 - ii. ASME Pipeline Transportation Systems for Liquids and Slurries, 2016 Edition (ASME B31.4-2016) and no later edition;
 - iii. ASME Gas Transmission and Distribution Piping Systems, 2016 Edition (ASME B31.8-2016) and no later edition;
 - iv. API Specification 15S, Spoolable Reinforced Plastic Line Pipe, Second Edition, March 2016 (API Specification 15S) and no later edition;
 - v. API RP 15TL4 (R2018) Recommended Practice for Care and Use of Fiberglass Tubulars, Second Edition, March 1999, together with API Specification 15HR, High-pressure Fiberglass Line Pipe, Fourth Edition, February 2016 (API Specification 15HR), and no later editions~~API Specification 15LR (R2013), Low Pressure Fiberglass Line Pipe and Fittings, Seventh Edition, August 2001 (API Specification 15LR) and no later edition;~~
 - vi. API RP 1110, Recommended Practice for the Pressure Testing of Steel Pipelines for the Transportation of Gas, Petroleum Gas, Hazardous Liquids, Highly Volatile Liquids or Carbon Dioxide (6th Ed., February 1, 2013) (API RP 1110) and no later edition, or
 - vii. ASTM F2164-13, Standard Practice for Field Leak Testing of Polyethylene (PE) and Crosslinked Polyethylene (PEX) Pressure Piping Systems Using Hydrostatic Pressure, and no later edition, or manufacturer's specifications recommendations and must test the line to at least maximum anticipated operating pressure.
- B. The ASME, API and ASTM standards identified in A. above are available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. Additionally, the standards may be examined at any state publications depository library. The ASME standards are available to purchase from the ASME at Two Park Avenue, New York, NY 10016-5990, 1-800-843-2763. The API standard is available to purchase from the API at 1220 L Street, NW Washington, DC 20005-4070, 1-202-682-8000. The ASTM standard is available to purchase from the ASTM at ASTM International, West Conshohocken, PA, 19428-2959, 1-877-909-2786.
- C. The test can be hydrostatic or the test fluid can be the produced fluids of oil, produced water or natural gas or inert gas in accordance with the applicable sections of the above-mentioned standards.
- D. A successful test must demonstrate that the line does not leak.

- (2) **Annual and Triennial Pressure Testing Requirements.** For annual or triennial pressure tests conducted to meet the requirements of Sections 1104.e and 1104.f:

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- A. A pressure test must test to at least the maximum operating pressure and run for at least 30 minutes once the fluid pressure has stabilized.
- B. The test can be hydrostatic or the test fluid can be the produced fluids of oil, produced water or natural gas.
- C. A successful test will demonstrate the line does not leak, that pressure loss does not exceed 10%, and the fluid pressure is stable for the last five minutes of the pressure test.

1104.i. **Continuous Pressure Monitoring Requirements.** An operator's continuous pressure monitoring program must meet API RP 1175 "Pipeline Leak detection Program Management (2017), and no later editions of the standard, and ensure:

- (1) Pressure data are monitored continuously, i.e., 24 hours per day and 7 days a week, and the monitoring is sufficiently sophisticated to identify flowline or crude oil transfer line integrity or pressure anomalies;
- (2) Systems are capable of being shut-in for repairs immediately upon discovery of a suspected leak, either through automation or a documented, manual process; and
- (3) The operator documents the continuous monitoring program, including suspected or identified integrity failures and how the operator will maintain and repair flowlines or crude oil transfer lines.
- (4) The API RP 1175 is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. In addition, API RP 1175 may be examined at any state publications depository library and is available from API at 1220 L Street NW, Washington, DO 20005-4070, 1-202-682-8000.

1104.j. **Audio, Visual and Olfactory (AVO) Detection Survey or Alternative Survey Requirements.**

- (1) When performing an AVO detection survey, an operator must survey the entire flowline length using audio, visual and olfactory techniques to detect integrity failures, leaks, spills, or releases, or signs of a leak, spill, or release like stressed vegetation or soil discoloration.
- (2) Instrument Monitoring Method (IMM). Where the regulations permit, an operator also may conduct a survey using an instrument monitoring method capable of detecting integrity failures, leaks, spills or releases, or signs of a leak, spill or release.
- (3) For either survey method, an operator must document the date and time of the survey, the detection methodology and technology, if any, used and the name of the employee who conducted the survey.

1104.k. **Gas Leak Reporting Integrity Failure Investigation.**

- (1) If the integrity management program indicates that a flowline or crude oil transfer line has or has had an integrity failure, the operator must investigate the cause of the failure, investigate whether the failure resulted in a spill or release of liquids, produced water, or gas, and repair any failure as required by Rule 1102.j.
- (2) If the failure resulted in a spill or release of liquids, produced water or gas, the operator must comply with the 900 Series Rules.

1105. ABANDONMENT

1105.a. A flowline or crude oil transfer line remains subject to all of the requirements in Rules 1101 through 1104 until the operator completes all abandonment requirements set forth below.

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1105.b. Upon removing a flowline or crude oil transfer line from ~~service use~~, an operator must immediately apply lockout or tag-out OOSLAT to the risers while the operator is in the process of abandoning the pipeline. ~~Lockout and tagout devices~~OOSLAT must stay in place at all times during the process of abandoning the flowline or crude oil transfer line until the operator removes the riser.

1105.c. Notice of Abandonment of off-location flowline or crude oil transfer line for inspection.

(1) If the off-location flowline or crude oil transfer line will be removed, the operator must submit notice to the Director with a Field Operations Notice, Form 42 – Abandonment of Flowlines, of the scheduled date for commencing abandonment. The operator must submit the Field Operations Notice no less than forty-eight (48) hours before the operator will commence abandonment.

(2) If the operator plans to abandon the off-location flowline or crude oil transfer line in place, the operator must submit notice to the Director with a Field Operations Notice, Form 42 – Abandonment of Flowlines, of the scheduled date for commencing abandonment. The operator must submit the Field Operations Notice no less than twenty (20) days before the operator will commence abandonment and include documentation supporting the applicable reason for abandonment in place consistent with Rule 1105.e(1). The Director may review the Field Operations Notice prior to the commencement of abandonment procedures to determine whether abandonment in place is appropriate. The Director may approve, deny, request additional information, or impose additional Conditions of Approval.

1105.d. Isolation. For abandonment, oOperators must permanently remove a flowline or crude oil transfer line from ~~service operation~~ by physically separating it from all sources of fluids or pressure within the time frame set forth in Section 1004.a. ~~Abandonment must also comply with one of the following:~~

1105.e. Abandonment. Operators must remove the flowline or crude oil transfer line and its risers, the riser associated with cathodic protection, and above-ground equipment, unless one of the below exceptions applies allowing abandonment in place.

(1) Reasons for abandoning in place:

A. Surface owner agreement.

B. Successful revegetation has occurred or is in process and removal of the line would harm revegetation and the line is in a sensitive area for wildlife or plants.

C. The federal government directs abandonment in place.

D. Removal of a segment of the line requires damaging a public road, railroad, bike path, or public right of way.

E. Removal requires removal from under a body of water.

F. The flowline or crude oil transfer line is co-located with other active utilities or is in a recorded right of way.

(1)(2) ~~Abandonment in place.~~ For a flowline or crude oil transfer line abandoned in place, ~~The~~the operator must:

A. Purge the flowline or crude oil transfer line of any liquids or fluids transported by the line;

B. Deplete the flowline or crude oil transfer line to atmospheric pressure;

C. Cut the flowline's or crude oil transfer line's risers to three (3) feet below grade or to the depth of the flowline or crude oil transfer line, whichever is shallower;

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- D. Seal the ends of the flowline or crude oil transfer line below grade; ~~and~~
- E. Remove above-ground cathodic protection and equipment associated with the riser; ~~and~~
- F. Submit pressure test results conducted in the prior 12 months as well as identification of any associated document numbers for a COGCC Spill/Release Report, Form 19.

~~(2) **Removal.** The operator must remove the flowline or crude oil transfer line and its risers, the riser associated with cathodic protection, and above-ground equipment.~~

1105.~~ef.~~ Within ~~30-90~~ days of an operator completing abandonment requirements for a flowline or crude oil transfer line, an operator must submit:

~~(1) A Field Operations Notice, Form 42 – Abandonment of Flowlines, to the Director for an on-location flowline. If the operator conducted a pressure test as part of the abandonment as part of the abandonment, a copy of the pressure test shall be submitted with the Report of Abandonment, Form 6 – Subsequent.~~

~~(2) A Flowline Report, Form 44, to the Director for an off-location flowline or crude oil transfer line the operator must submit a Flowline Report, Form 44, to the Director., which must include:~~

~~A. A geodatabase for the flowline, iff the operator abandons an off-location flowline and a geodatabase for the flowline has not submitted latitude and longitude for the flowline's risers, the Flowline Report, Form 44, must include this information.~~

~~B. An account of the manner in which the abandonment work was performed.~~

~~C. Copies of any pressure test results run as part of the abandonment shall be submitted with Form 44 for off-location flowlines and crude oil transfer lines.~~

1105.~~dEg.~~ The Director will provide a Field Operations Notice, Form 42 – Abandonment of Flowlines, for an on-location flowline or a Flowline Report, Form 44, for an off-location flowline or crude oil transfer line abandonment to the appropriate Local Governmental Designee and UNGCCO 811.

DEFINITIONS (100 Series)

FLOWLINE SYSTEM means a network of off-location flowlines.

GRADE 1 GAS LEAK means a gas leak that ignites or represents an existing or probable hazard to persons or property and requires immediate repair or continuous action until the conditions are no longer hazardous.

OUT OF SERVICE LOCKS AND TAGS (OOSLAT) means locks and tags that an operator applies when equipment is in pre-commissioned status, is placed in an out of service status, or is in the process of abandonment. Out of service locks and tags must be visibly different from lock out and tag out devices and may not be used during repair or maintenance of the equipment.

PRODUCED WATER TRANSFER SYSTEM means a system of off-location flowlines that transports produced water generated at more than one well site or production facility or a single, off-location flowline carrying produced water that is greater than one-mile in length.

TAGOUT DEVICE means a prominent warning device, such as a tag, that will not deteriorate or become illegible with exposure to weather conditions or wet and damp locations. The tagout device must: include an instruction to not operate the equipment; the date of the last successful integrity test; and the reason for tagging out the equipment; ~~and be color coded per ASME Scheme for the Identification of Piping Systems, 2015 Edition (A13.1–2015), and no later editions of the standard. ASME A13.1–2015 is available for public~~

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inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. Additionally, ASME A13.1- 2015 may be examined at any state publications depository library and is available to purchase from the ASME. The ASME can be contacted at Two Park Avenue, New York, NY 10016-5990, 1-800-843-2763.

GENERAL RULES (200 Series)

215. GLOBAL POSITIONING SYSTEMS

Global Positioning Systems (GPS) may be used to locate facilities used in oil and gas operations provided they meet the following minimum standards of the Commission:

- a. Instruments rated as Differential Global Positioning System (DGPS) shall be used.
- b. Instruments shall be capable of one (1) meter accuracy after differential correction.
- c. ~~All GPS data shall be differentially corrected by post processing prior to data submission~~Submission position accuracy value in meters shall be reported with location data. If unavailable, a position dilution of precision (PDOP) value less than six (6) is acceptable. GPS data shall be differently corrected by post-processing to meet accuracy requirements, if necessary.
- d. ~~Position dilution of precision (PDOP) values shall not be higher than six (6) and shall be included with location data.~~
- ed. Elevation mask (lowest acceptable height above the horizon) shall be no less than fifteen degrees (15o)
- fe. Latitude and longitude coordinates shall be provided in decimal degrees with an accuracy and precision of five (5) decimals of a degree using the North American Datum (NAD) of 1983 (e.g.; latitude 37.12345 N, longitude 104.45632 W).
- fg. Raw and corrected data files shall be held for a period of three (3) years.
- hg. Measurements shall be made by a trained GPS operator familiar with the theory of GPS, the use of GPS instrumentation, and typical constraints encountered during field activities.

216. COMPREHENSIVE DRILLING PLANS

- c. **Information requirements.** Operators are encouraged to submit the most detailed information practicable about the future activities in the geographic area covered by the Comprehensive Drilling Plan. Detailed information is more likely to lead to identification of specific impacts and agreement regarding measures to minimize adverse impacts. The information included in the Comprehensive Drilling Plan shall be decided upon by the operator, in consultation with other participants. Information provided by operators to federal agencies to obtain approvals for surface disturbing activities on federal land may be submitted in support of a Comprehensive Drilling Plan. The following information may be included as part of a Comprehensive Drilling Plan, depending on the circumstances:
 - (1) A U.S. Geological Survey 1:24,000 topographic map showing the proposed oil and gas locations, including proposed access roads and gathering systems reasonably known to the operator(s);
 - (2) A current aerial photo showing the proposed oil and gas locations displayed at the same scale as the topographic map to facilitate use as an overlay;
 - (3) Overlay maps showing the proposed oil and gas locations, including all proposed access roads, crude oil transfer lines, produced water transfer systems, ~~and~~ gathering systems, drainages and

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stream crossings, and existing and proposed buildings, roads, utility lines, pipelines, known mines, oil or gas wells, water wells known to the operator(s) and those registered with the State Engineer's Office, and riparian areas;

- (4) A list of all proposed oil and gas facilities, including crude oil transfer lines and produced water transfer systems, to be installed within the area covered by the Comprehensive Drilling Plan over the time of the Plan and the anticipated timing of the installation;
- (5) A plan for the management of exploration and production waste and a plan for the management of other fluids;

[no other changes proposed to the remaining subparts]

DRILLING, DEVELOPMENT, PRODUCTION AND ABANDONMENT (300 Series)

326. MECHANICAL INTEGRITY TESTING

326.b. **Shut-in Wells** - All shut-in wells shall pass a mechanical integrity test.

- (1) A mechanical integrity test shall be performed on each shut-in well within two years of the initial shut-in date.
- (2) Subsequently, a mechanical integrity test shall be performed on each shut-in well on 5 year intervals from the date the initial mechanical integrity test was performed, as long as the well remains shut-in .
- (3) The mechanical integrity test for a shut-in well shall be performed after: isolating the wellbore with a bridge plug or similar approved isolating device set 100 feet or less above the highest open perforation. The pressure test shall be with liquid or gas at an initial, stabilized surface pressure of not less than 300 psi surface pressure or any equivalent test or combination of tests approved by the Director.
- (4) Not less than 48 hours prior returning an inactive, shut-in well to production or injection, an operator must submit a Field Operations Notice, Form 42, to the Director of the scheduled date for returning the well to production or injection to allow the Commission to inspect.

326c. **Temporarily Abandoned Wells** – All temporarily abandoned wells shall pass a mechanical integrity test.

- (1) A mechanical integrity test shall be performed on each temporarily abandoned well within 30 days of temporarily abandoning the well.
- (2) Subsequently, a mechanical integrity test shall be performed on each temporarily abandoned well on five year intervals from the date of the initial mechanical integrity test was performed, as long as the well remained temporarily abandoned.
- (3) The mechanical integrity test for a temporarily abandoned well shall be performed after isolating the wellbore with a bridge plug or similar approved isolating device set 100 feet or less above the highest open perforation. The pressure test shall be liquid or gas at an initial, stabilized surface pressure of not less than 300 psi surface pressure or any equivalent test or combination of tests approved by the Director.
- (4) Not less than 48 hours prior returning an inactive, temporarily abandoned well to production or injection, an operator must submit a Field Operations Notice, Form 42, to the Director of the scheduled date for returning the well to production or injection to allow the Commission to inspect

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the installation of equipment or conduct of the mechanical intervention.

[no other changes proposed to the remaining subparts]

333. SEISMIC OPERATIONS

333.c.(3) Prior to any shothole drilling, the operator shall contact the Utility Notification Center of Colorado (CO 811) at 1-800-922-1987.

[no other changes proposed to the remaining subparts]

SAFETY REGULATIONS (600 Series)

610. GRADE 1 GAS LEAK REPORTING

An operator must initially report a Grade 1 Gas Leak from a flowline to the Director in accordance with Rule 906 and must submit the COGCC Spill/Release Report, Form 19, document number on a Flowline Report, Form 44 for the Grade 1 Gas Leak.

FINANCIAL ASSURANCE AND OIL AND GAS CONSERVATION AND ENVIORNMENTAL RESPONSE FUND (700 Series)

711. ~~Produced water transfer systems,~~ Gas gathering, gas processing and underground gas storage facilities.

Operators of ~~produced water transfer systems,~~ gas gathering, gas processing, or underground gas storage facilities must provide statewide blanket financial assurance to ensure compliance with the 900 Series rules in the amount of fifty thousand dollars (\$50,000), or in an amount voluntarily agreed to with the Director, or in an amount determined by order of the Commission. Operators of small systems gathering or processing less than five (5) MMSCFD ~~or seven hundred (700) barrels of water~~ per day may provide individual financial assurance in the amount of five thousand dollars (\$5,000).

712. Produced water transfer systems.

Operators of produced water transfer systems of a mile length or greater must provide statewide blanket financial assurance to ensure compliance with the 900 Series rules in the amount of fifty thousand dollars (\$50,000), or in an amount voluntarily agreed to with the Director, or in an amount determined by order of the Commission. Operators of small systems transferring less than seven hundred (700) barrels of water per day may provide individual financial assurance in the amount of five thousand dollars (\$5,000).

713. Surface facilities and structures appurtenant to Class II Commercial Underground Injection Control wells.

Operators of Class II commercial Underground Injection Control (UIC) wells shall be required to provide financial assurance to ensure compliance with the 900-Series Rules in the amount of fifty-thousand dollars (\$50,000) for each facility, or in an amount voluntarily agreed to with the Director, or in an amount to be determined by order of the Commission. The financial assurance required by this Rule 712 shall apply to the surface facilities and structures appurtenant to the Class II commercial injection well and used prior to the disposal of E&P wastes into such well and shall be in place by July 1, 2009. The financial assurance requirements for the plugging and abandonment of Class II commercial UIC wells are specified in Rule 706.

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E&P WASTE MANAGEMENT (900 Series)

906. SPILLS AND RELEASES

- a. **General.** Operators shall, immediately upon discovery, control and contain all spills/releases of E&P waste, gas, or produced fluids to protect the environment, public health, safety, and welfare, and wildlife resources. Operators shall investigate, clean up, and document impacts resulting from spills/releases as soon as practicable. The Director may require additional activities to prevent or mitigate threatened or actual significant adverse environmental impacts on any air, water, soil or biological resource, or to the extent necessary to ensure compliance with the concentration levels in Table 910-1, with consideration to WQCC ground water standards and classifications.
- b. **Reporting spills or releases of E&P Waste, gas, or produced fluids.**
- (1) Report to the Director. Operators shall report a spill or release of E&P Waste, gas, or produced fluids that meet any of the following criteria to the Director verbally or in writing as soon as practicable, but no more than twenty-four (24) hours after discovery for A.-C., below, or no more than six (6) hours after discovery for D., below (the "Initial Report").
- A. A spill/release of any size that impacts or threatens to impact any waters of the state, a residence or occupied structure, livestock, or public byway;
- B. A spill/release in which one (1) barrel or more of E&P Waste or produced fluids is spilled or released outside of berms or other secondary containment;
- C. A spill/release of five (5) barrels or more regardless of whether the spill/release is completely contained within berms or other secondary containment ~~;~~ or
- D. A Grade 1 Gas Leak. The operator also must submit the COGCC Spill/Release Report, Form 19, document number on a Flowline Report, Form 44 for the Grade 1 Gas Leak.
- (2) The Initial Report to the Director shall include, at a minimum,
- A. ~~the~~The location of the spill/release;
- B. Documentation that the operator provided additional party notifications as required by (6)-(9);
- C. A description of any threat to waters of the state, residences or occupied structures, livestock, or public byway from the spill/release; and
- D. ~~any~~Any information available to the Operator about the type and volume of fluid or waste involved, including whether it is controlled or uncontrolled at the time of submitting the Initial Report.
- (3) If the Initial Report was not made by submitting a COGCC Spill/Release Report, Form 19 the Operator must submit a Form 19 with the Initial Report information as soon as practicable but not later than 72 hours after discovery of the spill/release unless extended by the Director.
- (4) In addition to the Initial Report to the Director, the Operator shall make a supplemental report on Form 19 not more than 10 calendar days after the spill/release is discovered that includes an 8 1/2 x 11 inch topographic map showing the governmental section and location of the spill or an aerial photograph showing the location of the spill; all pertinent information about the spill/release known to the Operator that has not been reported previously; and information relating to the initial mitigation, site investigation, and remediation measures conducted by the Operator.

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- (5) The Director may require further supplemental reports or additional information.
- (26) Notification to the local government. In addition to the Initial Report to the Director, as soon as practicable, but not more than 24 hours after discovery of a spill/release of E & P Waste, gas, or produced fluids reportable under Rule 906.b.(1)A or B, above, an Operator shall provide verbal or written notification to the entity with jurisdiction over emergency response within the local municipality if the spill/release occurred within a municipality or the local county if the spill/release did not occur within a municipality. The notification shall include, at a minimum, the information provided in the Initial Report to the Director.
- (37) Notification to the Surface Owner. In addition to the Initial Report to the Director, within 24 hours after discovery of a spill/release of E & P Waste, gas, or produced fluids reportable under Rule 906.b.(1)A or B, an Operator shall provide verbal notification to the affected Surface Owner or the Surface Owner's appointed tenant. If the Surface Owner cannot be reached within 24 hours, the Operator shall continue good faith efforts to notify the Surface Owner until notice has been provided. The verbal notification shall include, at a minimum, the information.
- (48) Report to Environmental Release/Incident Report Hotline. A spill/release of any size which impact or threaten to impact any surface water supply area shall be reported to the Director and to the Environmental Release/Incident Report Hotline (1-877-518-5608). Spills and releases that impact or threaten a surface water intake shall be verbally reported to the emergency contact for that facility immediately after discovery.
- (59) Reporting chemical spills or releases. Chemical spills and releases shall be reported in accordance with applicable state and federal laws, including the Emergency Planning and Community Right-to-Know Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Oil Pollution Act, and the Clean Water Act, as applicable.

[no changes proposed for other subparts of Rule 906]

Effective Date: These amendments will become effective, per § 24-4-103, C.R.S., twenty days after publication in the Colorado Register.