John R. Ashcroft

Secretary of State
Administrative Rules Division

RULE TRANSMITTAL

Administrative Rules Stamp

RECEIVED
By Administrative Rules SOS at 9:25 am, Dec 18, 2023

Rule Number 20 CSR 4240-40.030

Use a "SEPARATE" rule transmittal sheet for EACH individual rulemaking.

Name of person to call with questions about this rule:
Content Ron Pridgin Phone 573-751-7497 FAX 573-526-6010
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TYPE OF RULEMAKING ACTION TO BE TAKEN

☐Emergency Rulemaking ☐ Rule ☐ Amendment ☐ Rescission ☐ Termination
Effective Date for the Emergency ________________

☐Proposed Rulemaking ☐ Rule ☐ Amendment ☐ Rescission

☐Rule Action Notice ☐ In Addition ☐ Rule Under Consideration

☐Request for Non-Substantive Change

☐Statement of Actual Cost

☒Order of Rulemaking ☐ Withdrawal ☐ Adopt ☒ Amendment ☐ Rescission
Effective Date for the Order ________________

☒Statutory 30 days OR Specific date ________________

Does the Order of Rulemaking contain changes to the rule text? ☐NO

☐YES—LIST THE SECTIONS WITH CHANGES, including any deleted rule text:
Staff is proposing to amend sections (1), (4), (7), (9), (12), (13), (16), and Appendix E.

JCAR Stamp

RECEIVED
By JCAR at 2:21 pm, Nov 16, 2023

Missouri Public Service Commission

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Commissioner

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Commissioner

SCOTT T. RUPP
Chairman

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JASON R. HOLSMAN
Commissioner

GLEN KOLKMEYER
Commissioner

Sarah Schappe
Director
Joint Committee on Administration Rules
State Capitol, Room B8A
Jefferson City, Missouri 65101

Re: 20 CSR 4240-40.030 Safety Standards—Transportation of Gas by Pipeline

Dear Director Schappe,

CERTIFICATION OF ADMINISTRATIVE RULE

I do hereby certify that the attached is an accurate and complete copy of the order of rulemaking lawfully submitted by the Missouri Public Service Commission.

Statutory Authority: sections *386.250, 386.310, and 393.160, RSMo*

If there are any questions regarding the content of this order of rulemaking, please contact:

Nancy Dippell, Chief Regulatory Law Judge
Missouri Public Service Commission
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P.O. Box 360
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Nancy Dippell

Nancy Dippell
Chief Regulatory Law Judge

Enclosures

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Michael L. Parson
GOVERNOR
STATE OF MISSOURI

October 20, 2023

Mr. Scott Rupp
Public Service Commission
PO Box 360
Jefferson City, MO 65102

Dear Scott:

This Office has received your Final Order of Rulemaking for the following regulation:

- 20 CSR 4240-40.030 Safety Standards – Transportation of Gas by Pipeline

Executive Order 17-03 requires this Office's approval before state agencies release proposed regulations for notice and comment, amend existing regulations, rescind regulations, or adopt new regulations. After our review, we approve the submission to the Joint Committee on Administrative Rules and the Secretary of State.

Sincerely,

Evan Rodriguez
General Counsel

RECEIVED
By Administrative Rules SOS at 9:26 am, Dec 18, 2023

Title 20 – DEPARTMENT OF COMMERCE AND INSURANCE
Division 4240 – Public Service Commission
Chapter 40 – Gas Utilities and Gas Safety Standards

ORDER OF RULEMAKING

By the authority vested in the Public Service Commission under section 386.250, RSMo 2016, the commission amends a rule as follows:

20 CSR 4240-40.030 is amended.

A notice of proposed rulemaking containing the proposed amendment was published in the *Missouri Register* on September 1, 2023 (48 MoReg 1619). Changes to the proposed amendment are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The public comment period ended October 1, 2023, and the commission held a public hearing on the proposed amendment on October 4, 2023. No comments were received at the hearing. The commission received timely written comments in support of the amendment with certain changes from J. Scott Stacey, Legal Counsel, on behalf of the staff of the commission.

COMMENT #1**:** Staff filed written comments supporting the amendment with certain changes. Staff noted that on May 16, 2023, the U.S. Court of Appeals for the District of Columbia Circuit vacated the final rule "Pipeline Safety: Requirement of Valve Installation and Minimum Rupture Detection Standards" as it applies to gathering lines. On August 1, 2023, PHMSA published technical corrections to remove the gathering line-specific amendments introduced in the final rule, clarify that the final rule amendments do not apply to gathering lines, and make additional editorial changes and clarifications.

RESPONSE AND EXPLANATION OF CHANGE: The commission agrees that the proposed rule should be amended as suggested by the staff of the commission. Subsections (1)(B), (1)(E), (4)(U), (12)(W), (12)(X), and (12)(Z) will be amended.

20 CSR 4240-40.030 Safety Standards – Transportation of Gas by Pipeline

(1) General.

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By JCAR at 2:22 pm, Nov 16, 2023

(B) Definitions. (192.3) As used in this rule—

1. Abandoned means permanently removed from service;

2. Active corrosion means continuing corrosion that, unless controlled, could result in a condition that is detrimental to public safety;

3. Administrator means the Administrator of the Pipeline and Hazardous Materials Safety Administration of the United States Department of Transportation to whom authority in the matters of pipeline safety have been delegated by the Secretary of the United States Department of Transportation, or his or her delegate;

4. Alarm means an audible or visible means of indicating to the controller that equipment or processes are outside operator-defined, safety-related parameters;

5. Building means any structure that is regularly or periodically occupied by people;

6. Close interval survey means a series of closely and properly spaced pipe-to-electrolyte potential measurements taken over the pipe to assess the adequacy of cathodic protection or to identify locations where a current may be leaving the pipeline that may cause corrosion and for the purpose of quantifying voltage (IR) drops other than those across the structure electrolyte boundary, such as when performed as a current interrupted, depolarized, or native survey;

7. Commission means the Missouri Public Service Commission;

8. Composite materials means materials used to make pipe or components manufactured with a combination of either steel and/or plastic and with a reinforcing material to maintain its circumferential or longitudinal strength;

9. Control room means an operations center staffed by personnel charged with the responsibility for remotely monitoring and controlling a pipeline facility;

10. Controller means a qualified individual who remotely monitors and controls the safety-related operations of a pipeline facility via a supervisory control and data acquisition (SCADA) system from a control room, and who has operational authority and accountability for the remote operational functions of the pipeline facility;

11. Customer meter means the meter that measures the transfer of gas from an operator to a consumer;

12. Designated commission personnel means the pipeline safety program manager at the address contained in 20 CSR 4240-40.020(5)(E) for correspondence;

13. Distribution center means the initial point where gas enters piping used primarily to deliver gas to customers who purchase it for consumption, as opposed to customers who purchase it for resale, for example—

A. At a metering location;

B. A pressure reduction location; or

C. Where there is a reduction in the volume of gas, such as a lateral off a transmission line;

14. Distribution line means a pipeline other than a gathering or transmission line;

15. Dry gas or dry natural gas means gas above its dew point and without condensed liquids;

16. Electrical survey means a series of closely spaced pipe-to-soil readings over pipelines which are subsequently analyzed to identify locations where a corrosive current is leaving the pipeline, except that other indirect examination tools/methods can be used for an electrical survey included in the federal regulations in 49 CFR part 192, subpart O and appendix E (incorporated by reference in section (16));

17. Engineering critical assessment (ECA) means a documented analytical procedure based on fracture mechanics principles, relevant material properties (mechanical and fracture resistance properties), operating history, operational environment, in-service degradation, possible failure mechanisms, initial and final defect sizes, and usage of future operating and maintenance procedures to determine the maximum tolerable sizes for imperfections based upon the pipeline segment maximum allowable operating pressure

18. Entirely replaced transmission pipeline segments means, for the purposes of subsections (4)(U) and (12)(X), where two (2) or more miles, in the aggregate, of transmission pipeline have been replaced within any five (5) contiguous miles of pipeline within any twenty-four- (24-) month period. This definition does not apply to any gathering line;

19. Feeder line means a distribution line that has a maximum allowable operating pressure (MAOP) greater than 100 psi (689 kPa) gauge that produces hoop stresses less than twenty percent (20%) of specified minimum yield strength (SMYS);

20. Follow-up inspection means an inspection performed after a repair procedure has been completed in order to determine the effectiveness of the repair and to ensure that all hazardous leaks in the area are corrected;

21. Fuel line means the customer-owned gas piping downstream from the outlet of the customer meter or operator-owned pipeline, whichever is farther downstream;

22. Gas means natural gas, flammable gas, manufactured gas, or gas which is toxic or corrosive;

23. Gathering line means a pipeline that transports gas from a current production facility to a transmission line or main;

24. Hard spot means an area on steel pipe material with a minimum dimension greater than two inches (2”) (50.8 mm) in any direction and hardness greater than or equal to Rockwell 35 HRC (Brinell 327 HB or Vickers 345 HV10);

25. High-pressure distribution system means a distribution system in which the gas pressure in the main is higher than an equivalent to fourteen inches (14") water column;

26. Hoop stress means the stress in a pipe wall acting circumferentially in a plane perpendicular to the longitudinal axis of the pipe produced by the pressure in the pipe;

27. In-line inspection (ILI) means an inspection of a pipeline from the interior of the pipe using an inspection tool also called intelligent or smart pigging. This definition includes tethered and self-propelled inspection tools;

28. In-line inspection tool or instrumented internal inspection device means an instrumented device or vehicle that uses a non-destructive testing technique to inspect the pipeline from the inside in order to identify and characterize flaws to analyze pipeline integrity; also known as an intelligent or smart pig;

29. Listed specification means a specification listed in subsection I. of Appendix B, which is included herein (at the end of this rule);

30. Low-pressure distribution system means a distribution system in which the gas pressure in the main is less than or equal to an equivalent of fourteen inches (14") water column;

31. Main means a distribution line that serves as a common source of supply for more than one (1) service line;

32. Maximum actual operating pressure means the maximum pressure that occurs during normal operations over a period of one (1) year;

33. Maximum allowable operating pressure (MAOP) means the maximum pressure at which a pipeline or segment of a pipeline may be operated under this rule;

34. Moderate consequence area means—

A. An onshore area that is within a “potential impact circle” as defined in 49 CFR 192.903 (incorporated by reference in section (16)), containing either—

(I) Five (5) or more buildings intended for human occupancy; or

(II) Any portion of the paved surface (including shoulders) of a designated “interstate,” “other freeway or expressway,” as well as any “other principal arterial” roadway with four (4) or more lanes, as defined in the Federal Highway Administration’s Highway Functional Classification Concepts, Criteria and Procedures, Section 3.1 (see: https://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/fcaua b.pdf), and that does not meet the definition of “high consequence area” in 49 CFR 192.903 (incorporated by reference in section (16)); and

B. The length of the moderate consequence area extends axially along the length of the pipeline from the outermost edge of the first potential impact circle containing either five (5) or more buildings intended for human occupancy; or any portion of the paved surface, including shoulders, of any designated interstate, freeway, or expressway, as well as any other principal arterial roadway with four (4) or more lanes, to the outermost edge of the last contiguous potential impact circle that contains either five (5) or more buildings intended for human occupancy, or any portion of the paved surface, including shoulders, of any designated interstate, freeway, or expressway, as well as any other principal arterial roadway with four (4) or more lanes;

35. Municipality means a city, village, or town;

36. Notification of potential rupture means the notification to, or observation by, an operator of indicia identified in subsection (12)(Y) of a potential unintentional or uncontrolled release of a large volume of gas from a pipeline. This definition does not apply to any gathering line;

37. Operator means a person who engages in the transportation of gas;

38. Person means any individual, firm, joint venture, partnership, corporation, association, county, state, municipality, political subdivision, cooperative association, or joint stock association, and including any trustee, receiver, assignee, or personal representative of them;

39. Petroleum gas means propane, propylene, butane (normal butane or isobutanes), and butylene (including isomers), or mixtures composed predominantly of these gases, having a vapor pressure not exceeding 208 psi (1434 kPa) gauge at 100°F (38°C);

40. PHMSA means the Pipeline and Hazardous Materials Safety Administration of the United States Department of Transportation;

41. Pipe means any pipe or tubing used in the transportation of gas, including pipe-type holders;

42. Pipeline means all parts of those physical facilities through which gas moves in transportation, including pipe, valves, and other appurtenances attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies;

43. Pipeline environment includes soil resistivity (high or low), soil moisture (wet or dry), soil contaminants that may promote corrosive activity, and other known conditions that could affect the probability of active corrosion;

44. Pipeline facility means new and existing pipelines, rights-of-way, and any equipment, facility, or building used in the transportation of gas or in the treatment of gas during the course of transportation;

45. Reading means the highest sustained reading when testing in a bar hole or opening without induced ventilation

46. Rupture-mitigation valve (RMV) means an automatic shut-off valve (ASV) or a remote-control valve (RCV) that a pipeline operator uses to minimize the volume of gas released from the pipeline and to mitigate the consequences of a rupture. This definition does not apply to any gathering line;

47. Service line means a distribution line that transports gas from a common source of supply to an individual customer, to two (2) adjacent or adjoining residential or small commercial customers, or to multiple residential or small commercial customers served through a meter header or manifold. A service line ends at the outlet of the customer meter or at the connection to a customer's piping, whichever is further downstream, or at the connection to customer piping if there is no meter;

48. Service regulator means the device on a service line that controls the pressure of gas delivered from a higher pressure to the pressure provided to the customer. A service regulator may serve one (1) customer or multiple customers through a meter header or manifold;

49. SMYS means specified minimum yield strength is—

A. For steel pipe manufactured in accordance with a listed specification, the yield strength specified as a minimum in that -specification; or

B. For steel pipe manufactured in accordance with an unknown or unlisted specification, the yield strength determined in accordance with paragraph (3)(D)2. (192.107(b));

50. Supervisory control and data acquisition (SCADA) system means a computer-based system or systems used by a controller in a control room that collects and displays information about a pipeline facility and may have the ability to send commands back to the pipeline facility;

51. Sustained reading means the reading taken on a combustible gas indicator unit after adequately venting the test hole or opening;

52. Transmission line means a pipeline or connected series of pipelines, other than a gathering line, that—

A. Transports gas from a gathering pipeline or storage facility to a distribution center, storage facility, or large volume customer that is not downstream from a distribution center (A large volume customer may receive similar volumes of gas as a distribution center, and includes factories, power plants, and institutional users of gas.);

B. Has an MAOP [Operates at a hoop stress] of twenty percent (20%) or more of SMYS; [or]

C. Transports gas within a storage field; or

D. Is voluntarily designated by the operator as a transmission pipeline;

53. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline or the storage of gas, in or affecting intrastate, interstate, or foreign commerce;

54. Tunnel means a subsurface passageway large enough for a man to enter;

55. Vault or manhole means a subsurface structure that a man can enter;

56. Weak link means a device or method used when pulling polyethylene pipe, typically through methods such as horizontal directional drilling, to ensure that damage will not occur to the pipeline by exceeding the maximum tensile stresses allowed;

57. Welder means a person who performs manual or semi-automatic welding;

58. Welding operator means a person who operates machine or automatic welding equipment;

59. Wrinkle bend means a bend in the pipe that—

A. Was formed in the field during construction such that the inside radius of the bend has one or more ripples with—

(I) An amplitude greater than or equal to one and one-half (1.5) times the wall thickness of the pipe, measured from peak to valley of the ripple; or

(II) With ripples less than one and one-half (1.5) times the wall thickness of the pipe and with a wrinkle length (peak to peak) to wrinkle height (peak to valley) ratio under twelve (12).

B. If the length of the wrinkle bend cannot be reliably determined, then wrinkle bend means a bend in the pipe where (h/D)*100 exceeds 2 when S is less than 37,000 psi (255 MPa), where (h/D)*100 exceeds (47,000-S)/10,000 + 1 for psi [(324-S)/69 + 1 for MPa] when S is greater than 37,000 psi (255 MPa) but less than 47,000 psi (324 MPa), and where (h/D)*100 exceeds 1 when S is 47,000 psi (324 MPa) or more. Where—

(I) D = Outside diameter of the pipe, in. (mm);
(II) h = Crest-to-trough height of the ripple, in. (mm); and
(III) (III) S = Maximum operating hoop stress, psi (S/145, MPa); and

60. Yard line means an underground fuel line that transports gas from the service line to the customer's building. If multiple buildings are being served, building means the building nearest to the connection to the service line. For purposes of this definition, if aboveground fuel line piping at the meter location is located within five feet (5') of a building being served by that meter, it will be considered to the customer's building and no yard line exists. At meter locations where aboveground fuel line piping is located greater than five feet (5') from the building(s) being served, the underground fuel line from the meter to the entrance into the nearest building served by that meter will be considered the yard line and any other lines are not considered yard lines

(E) Gathering Lines.

1. How are Gathering Pipelines and Regulated Gathering Pipelines Determined? (192.8)

A. An operator must use API RP 80 (incorporated by reference in 49 CFR 192.7 and adopted in (1)(D)), to determine if a pipeline (or part of a connected series of pipelines) is a gathering line. The determination is subject to the limitations listed below. After making this determination, an operator must determine if the gathering line is a regulated gathering line under subparagraph (1)(E)1.

(I) The beginning of gathering, under section 2.2(a)(1) of API RP 80, may not extend beyond the furthermost downstream point in a production operation as defined in section 2.3 of API RP 80. This furthermost downstream point does not include equipment that can be used in either production or transportation, such as separators or dehydrators, unless that equipment is involved in the processes of ‘‘production and preparation for transportation or delivery of hydrocarbon gas’’ within the meaning of ‘‘production operation.’’

(II) The endpoint of gathering, under section 2.2(a)(1)(A) of API RP 80, may not extend beyond the first downstream natural gas processing plant, unless the operator can demonstrate, using sound engineering principles, that gathering extends to a further downstream plant.

(III) If the endpoint of gathering, under section 2.2(a)(1)(C) of API RP 80, is determined by the commingling of gas from separate production fields, the fields may not be more than fifty (50) miles from each other, unless the Administrator finds a longer separation distance is justified in a particular case (see 49 CFR 190.9).

(IV) The endpoint of gathering, under section 2.2(a)(1)(D) of API RP 80, may not extend beyond the furthermost downstream compressor used to increase gathering line pressure for delivery to another pipeline.

(V) For new, replaced, relocated, or otherwise changed gas gathering pipelines installed after May 16, 2022, the endpoint of gathering under sections 2.2(a)(1)(E) and 2.2.1.2.6 of API RP 80 —also known as ‘‘incidental gathering’’—may not be used if the pipeline terminates ten (10) or more miles downstream from the furthermost downstream endpoint as defined in paragraphs 2.2(a)(1)(A) through (a)(1)(D) of API RP 80 and this paragraph. If an ‘‘incidental gathering’’ pipeline is ten (10) miles or more in length, the entire portion of the pipeline that is designated as an incidental gathering line under 2.2(a)(1)(E) and 2.2.1.2.6 of API RP 80 shall be classified as a transmission pipeline subject to rules 20 CSR 4240-40.020, 40.030, 40.033, and 40.080.

B. Each operator must determine and maintain for the life of the pipeline records documenting the methodology by which it calculated the beginning and end points of each gathering pipeline it operates, as described in the second column of table 1 to part (1)(E)1.C.(II), by:

(I) November 16, 2022, or before the pipeline is placed into operation, whichever is later; or

(II) An alternative deadline approved by the Pipeline and Hazardous Materials Safety Administration (PHMSA). The operator must notify PHMSA and designated commission personnel no later than ninety (90) days in advance of the deadline in part (1)(E)1.B.(I). The notification must be made in accordance with subsection (1)(M) and must include the following information:

(a) Description of the affected facilities and operating environment;

(b) Justification for an alternative compliance deadline; and

(c) Proposed alternative deadline.

C. For purposes of 20 CSR 4240-40.020 and paragraph (1)(E)2., the term ''regulated gathering pipeline'' means:

(I) Each Type A, Type B, or Type C gathering pipeline (or segment of gathering pipeline) with a feature described in the second column of table 1 to part (1)(E)1.C.(II) that lies in an area described in the third column; and

(II) As applicable, additional lengths of pipeline described in the fourth column to provide a safety buffer:

Table 1 to Paragraph (c)(2)

Type	Feature	Area	Safety Buffer
A	Metallic and the MAOP produces a hoop stress of twenty percent (20%) or more of SYMS.	Class 2, 3, or 4 location (see subsection (1)(C))	None.
	If the stress level is unknown, an operator must determine the stress level according to the applicable provision in section (3)		

	Non-metallic and the MAOP is more than one hundred twenty-five (125) psig (862 kPa).		
B	Metallic and the MAOP produces a hoop stress of less than twenty percent (20%) of SMYS. If the stress level is unknown, an operator must determine the stress level according to the applicable provisions in section (3). Non-metallic and the MAOP is one hundred twenty-five (125) psig (862 kPa) or less.	Area 1. Class 3, or 4 location Area 2. An area within a Class 2 location the operator determines by using any of the following three methods: (a) A Class 2 location; (b) An area extending one hundred fifty (150') (45.7 m) on each side of the centerline of any continuous one (1) mile (1.6 km) of pipeline and including more than ten (10) but fewer than forty-six (46) dwellings; or	If the gathering pipeline is in Area 2(b) or 2(c), the additional lengths of line extended upstream and downstream from the area to a point where the line is at least one hundred fifty feet (150') (45.7 m) from the nearest dwelling in the area. However, if a cluster of dwellings in Area 2(b) or 2(c) qualifies a pipeline as Type B, the Type B classification ends one hundred fifty feet (150') (45.7 m) from the nearest dwelling in the cluster.

		(c) An area extending one hundred fifty feet (150') (45.7 m) on each side of the centerline of any continuous one thousand feet (1000') (305 m) of pipeline and including five (5) or more dwellings	
C	Outside diameter greater than or equal to 8.625 inches and any of the following: Metallic and the MAOP produces a hoop stress of twenty percent (20%) or more of SMYS; If the stress level is unknown, segment is metallic and the MAOP is more than one hundred twenty-five psig (862 kPA); or	Class 1 location	None.

	Non-metallic and the MAOP is more than one hundred twenty-five (125) psig (862 kPa).		
R	All other gathering lines	Class 1 and Class 2 locations	None.

(III) A Type R gathering line is subject to reporting requirements under 20 CSR 4240-40.020 but is not a regulated gathering line under this rule.

(IV) For the purpose of identifying Type C lines in table 1 to part (1)(E)1.C.(II), if an operator has not calculated MAOP consistent with the methods at paragraph (12)(M)1. or subparagraph (12)(M)3.A., the operator must either:

(a) Calculate MAOP consistent with the methods at paragraph (12)(M)1. or subparagraph (12)(M)3.A.; or

(b) Use as a substitute for MAOP the highest operating pressure to which the segment was subjected during the preceding five (5) operating years.

2.What Requirements Apply to Gathering Pipelines? (192.9)

A. Requirements. An operator of a gathering line must follow the safety requirements of this rule as prescribed by this paragraph.

B. Type A lines. An operator of a Type A regulated gathering line must comply with the requirements of this rule applicable to transmission lines, except the requirements in (1)(G)4., (4)(HH), (6)(H)5., (7)(J)3.–6., (9)(G)6.–9., (9)(I)4. and 6., (9)(M)3., (9)(S)3., (9)(X), (9)(Y), (10)(K), 2 (12)(E), (12)(H)3., (12)(M)5., (12)(U), (13)(DD), (13)(EE), (13)(GG), and section (16)—Pipeline Integrity Management for Transmission Lines (Subpart O). However, an operator of a Type A regulated gathering line in a Class 2 location may demonstrate compliance with subsection (12)(D) by describing the processes it uses to determine the qualification of persons performing operations and maintenance tasks. Further, operators of Type A regulated gathering lines are exempt from the requirements of (4)(U)4.–6., (12)(W), (12)(L)2.–4., (12)(X), (12)(Y), (12)(Z), and (13)(U)3. Lastly, operators of Type A regulated gathering lines are exempt from the requirements of subsection (12)(J) (but an operator of a Type A regulated gathering line must comply with the requirements of subsection (12)(J), effective February 28, 2023).

C. Type B lines. An operator of a Type B regulated gathering line must comply with the following requirements:

(I) If a line is new, replaced, relocated, or otherwise changed, the design, installation, construction, initial inspection, and initial testing must be in accordance with requirements of this rule applicable to transmission lines. Compliance with (2)(G), (3)(M), (4)(U)4. and 5., (4)(II), (5)(D)3., (6)(H)5., (7)(J)3.–6., (10)(K), (12)(X), and (12)(Z) is not required;

(II) If the pipeline is metallic, control corrosion according to requirements of section (9) applicable to transmission lines, except the requirements in (9)(G)6.–9., (9)(I)4. and 6., (9)(M)3., (9)(S)3., (9)(X), and (9)(Y);

(III) If the pipeline contains plastic pipe or components, the operator must comply with all applicable requirements of this rule for plastic pipe components;

(IV) Carry out a damage prevention program under subsection (12)(I);

(V) Establish a public education program under subsection (12)(K);

(VI) Establish the MAOP of the line under paragraphs (12)(M)1., 2., and 3;

(VII) Install and maintain line markers according to the requirements for transmission lines in subsection (13)(E); and

(VIII) Conduct leakage surveys in accordance with the requirements for transmission lines in subsection (13)(D), using leak-detection equipment, and promptly repair hazardous leaks in accordance with paragraph (13)(B)3.

D. Type C lines. The requirements for Type C gathering lines are as follows.

(I) An operator of a Type C gathering line with an outside diameter greater than or equal to eight and five-eighths inches (8.625”) must comply with the following requirements:

(a) Except as provided in subparagraph (1)(E)2.G. for pipe and components made with composite materials, the design, installation, construction, initial inspection, and initial testing of a new, replaced, relocated, or otherwise changed Type C gathering line, must be done in accordance with the requirements in sections (2)–(7) and (10) applicable to transmission lines. Compliance with (2)(G), (3)(M), (4)(U)4. and 5., (4)(II), (5)(D)3., (6)(H)5., (7)(J)3.–6., (10)(K), (12)(X), and (12)(Z) is not required;

(b) If the pipeline is metallic, control corrosion according to requirements of section (9) applicable to transmission lines, except the requirements in (9)(G)6.–9., (9)(I)4. and 6., (9)(M)3., (9)(S)3., (9)(X), and (9)(Y);

(c) Carry out a damage prevention program under subsection (12)(I);

(d) Develop and implement procedures for emergency plans in accordance with the requirements of subsection (12)(J), effective February 28, 2023;

(e) Develop and implement a written public awareness program in accordance with subsection (12)(K);

(f) Install and maintain line markers according to the requirements for transmission lines in subsection (13)(E); and

(g) Conduct leakage surveys in accordance with the requirements for transmission lines in subsection (13)(D) using leak-detection equipment, and promptly repair hazardous leaks in accordance with paragraph (13)(B)3.

(II) An operator of a Type C gathering line with an outside diameter greater than twelve and three-quarters inches (12.75") must comply with the requirements in part (1)(E)2.D.(I) and the following:

(a) If the pipeline contains plastic pipe, the operator must comply with all applicable requirements of this rule for plastic pipe or components. This does not include pipe and components made of composite materials that incorporate plastic in the design; and

(b) Establish the MAOP of the pipeline under paragraphs (12)(M)1. or 3. and maintain records used to establish the MAOP for the life of the pipeline.

E. Exceptions.

(I) Compliance with subparts (1)(E)2.D.(I)(b), (e), (f), and (g) and subparts (1)(E)2.D.(II)(a) and (b) is not required for pipeline segments that are sixteen inches (16") or less in outside diameter if one of the following criteria are met:

(a) Method 1. The segment is not located within a potential impact circle containing a building intended for human occupancy or other impacted site. The potential impact circle must be calculated as specified in 49 CFR 192.903 (incorporated by reference in section (16)), except that a factor of 0.73 must be used instead of 0.69. The MAOP used in this calculation must be determined and documented in accordance with subpart (1)(E)2.D.(II)(b).

(b) Method 2. The segment is not located within a class location unit (see subsection (1)(C)) containing a building intended for human occupancy or other impacted site.

(II) Subpart (1)(E)2.D.(I)(a) is not applicable to pipeline segments forty feet (40') or shorter in length that are replaced, relocated, or changed on a pipeline existing on or before May 16, 2022.

(III) For purposes of this paragraph, the term ''building intended for human occupancy or other impacted site'' means any of the following:

(a) Any building that may be occupied by humans, including homes, office buildings factories, outside recreation areas, plant facilities, etc.;

(b) A small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by twenty (20) or more persons on at least five (5) days a week for ten (10) weeks in any twelve- (12-) month period (the days and weeks need not be consecutive); or

(c) Any portion of the paved surface, including shoulders, of a designated interstate, other freeway, or expressway, as well as any other principal arterial roadway with 4 or more lanes.

F. Compliance deadlines. An operator of a regulated gathering line must comply with the following deadlines, as applicable.

(I) An operator of a new, replaced, relocated, or otherwise changed line must be in compliance with the applicable requirements of this paragraph by the date the line goes into service, unless an exception in subsection (1)(G) applies.

(II) If a Type A or Type B regulated gathering pipeline existing on April 14, 2006, was not previously subject to this rule, an operator has until the date stated in the second column to comply with the applicable requirement for the pipeline listed in the first column, unless the Administrator finds a later deadline is justified in a particular case:

Requirement	Compliance Deadline
(i) Control corrosion according to requirements for transmission lines in section (9)	April 15, 2009.
(ii) Carry out a damage prevention program under subsection (12)(I)	October 15, 2007.
(iii) Establish MAOP under subsection (12)(M)	October 15, 2007.
(iv) Install and maintain line markers under subsection (13)(E)	April 15, 2008.
(v) Establish a public education program under subsection (12)(K)	April 15, 2008.
(vi) Other provisions of this rule as required by subparagraph (1)(E)2.B. for Type A lines	April 15, 2009.

(III) If, after April 14, 2006, a change in class location or increase in dwelling density causes a gathering pipeline to become a Type A or Type B regulated gathering line, the operator has one (1) year for Type B lines and two (2) years for Type A lines after the pipeline becomes a regulated gathering pipeline to comply with this paragraph.

(IV) If a Type C gathering pipeline existing on or before May 16, 2022, was not previously subject to this rule, an operator must comply with the applicable requirements of this paragraph, except for subparagraph (1)(E)2.G., on or before:

(a) May 16, 2023; or

(b) An alternative deadline approved by PHMSA. The operator must notify PHMSA and designated commission personnel no later than ninety (90) days in advance of the deadline in part (1)(E)1.B.(I). The notification must be made in accordance with subsection (1)(M) and must include a description of the affected facilities and operating environment, the proposed alternative deadline for each affected requirement, the justification for each alternative compliance deadline, and actions the operator will take to ensure the safety of affected facilities.

(V) If, after May 16, 2022, a change in class location, an increase in dwelling density, or an increase in MAOP causes a pipeline to become a Type C gathering pipeline, or causes a Type C gathering pipeline to become subject to additional Type C requirements (see subparagraph (1)(E)2.E.), the operator has one (1) year after the pipeline becomes subject to the additional requirements to comply with this paragraph.

G. Composite materials. Pipe and components made with composite materials not otherwise authorized for use under this rule may be used on Type C gathering pipelines if the following requirements are met:

(I) Steel and plastic pipe and components must meet the installation, construction, initial inspection, and initial testing requirements in sections (2)–(7) and (10) applicable to transmission lines.

(II) Operators must notify PHMSA in accordance with subsection (1)(M) at least ninety (90) days prior to installing new or replacement pipe or components made of composite materials otherwise not authorized for use under this rule in a Type C gathering pipeline. The notifications required by this paragraph must include a detailed description of the pipeline facilities in which pipe or components made of composite materials would be used, including:

(a) The beginning and end points (stationing by footage and mileage with latitude and longitude coordinates) of the pipeline segment containing composite pipeline material and the counties and States in which it is located;

(b) A general description of the right-of-way including high consequence areas, as defined in 49 CFR 192.905 (incorporated by reference in section (16));

(c) Relevant pipeline design and construction information including the year of installation, the specific composite material, diameter, wall thickness, and any manufacturing and construction specifications for the pipeline;

(d) Relevant operating information, including MAOP, leak and failure history, and the most recent pressure test (identification of the actual pipe tested, minimum and maximum test pressure, duration of test, any leaks and any test logs and charts) or assessment results;

(e) An explanation of the circumstances that the operator believes make the use of composite pipeline material appropriate and how the design, construction, operations, and maintenance will mitigate safety and environmental risks;

(f) An explanation of procedures and tests that will be conducted periodically over the life of the composite pipeline material to document that its strength is being maintained;

(g) Operations and maintenance procedures that will be applied to the alternative materials. These include procedures that will be used to evaluate and remediate anomalies and how the operator will determine safe operating pressures for composite pipe when defects are found;

(h) An explanation of how the use of composite pipeline material would be in the public interest; and

(i) A certification signed by a vice president (or equivalent or higher officer) of the operator's company that operation of the applicant's pipeline using composite pipeline material would be consistent with pipeline safety.

(III) Repairs or replacements using materials authorized under this rule do not require notification under this paragraph.

(4) Design of Pipeline Components

(U) Transmission Line Valves (192.179)

1. Each transmission line must have sectionalizing block valves spaced as follows, unless in a particular case the administrator finds that alternative spacing would provide an equivalent level of safety:

A. Each point on the pipeline in a Class 4 location must be within two and one-half (2 1/2) miles (4 kilometers) of a valve;

B. Each point on the pipeline in a Class 3 location must be within four (4) miles (6.4 kilometers) of a valve;

C. Each point on the pipeline in a Class 2 location must be within seven and one-half (7 1/2) miles (12 kilometers) of a valve; and

D. Each point on the pipeline in a Class 1 location must be within ten (10) miles (16 kilometers) of a valve.

2. Each sectionalizing block valve on a transmission line must comply with the following:

A. The valve and the operating device to open or close the valve must be readily accessible and protected from tampering and damage; and

B. The valve must be supported to prevent settling of the valve or movement of the pipe to which it is attached.

3. Each section of a transmission line between main line valves must have a blowdown valve with enough capacity to allow the transmission line to be blown down as rapidly as practicable. Each blowdown discharge must be located so the gas can be blown to the atmosphere without hazard and, if the transmission line is adjacent to an overhead electric line, so that the gas is directed away from the electrical conductors

4. For transmission pipeline segments with diameters greater than or equal to six inches (6”) that are constructed after April 10, 2023, the operator must install rupture-mitigation valves (RMV) or an alternative equivalent technology whenever a valve must be installed to meet the appropriate valve spacing requirements of this subsection. An operator seeking to use alternative equivalent technology must notify PHMSA in accordance with the procedures set forth in paragraph (4)(U)6. All RMVs and alternative equivalent technologies installed pursuant to this paragraph (4)(U)4. must meet the requirements of subsection (12)(Z). The installation requirements in this paragraph (4)(U)4. do not apply to pipe segments with a potential impact radius (PIR), as defined in 49 CFR 192.903 (incorporated by reference in section (16)), that is less than or equal to one hundred fifty feet (150’) in either Class 1 or Class 2 locations. An operator may request an extension of the installation compliance deadline requirements of this paragraph if it can demonstrate to PHMSA, in accordance with the notification procedures in subsection (1)(M), that those installation compliance deadlines would be economically, technically, or operationally infeasible for a particular new pipeline.

5. For entirely replaced transmission pipeline segments, as defined in subsection (1)(B), with diameters greater than or equal to six inches (6”) and that are installed after April 10, 2023, the operator must install RMVs or an alternative equivalent technology whenever a valve must be installed to meet the appropriate valve spacing requirements of this subsection. An operator seeking to use alternative equivalent technology must notify PHMSA in accordance with the procedures set forth in paragraph (4)(U)6. All RMVs and alternative equivalent technologies installed pursuant to this paragraph (4)(U)5. must meet the requirements of subsection (12)(Z). The requirements of this paragraph (4)(U)5. apply when the applicable pipeline replacement project involves a valve, either through addition, replacement, or removal. The installation requirements in this paragraph (4)(U)5. do not apply to pipe segments with a PIR, as defined in 49 CFR 192.903 (incorporated by reference in section (16)), that is less than or equal to one hundred fifty feet (150’) in either Class 1 or Class 2 locations. An operator may request an extension of the installation compliance deadline requirements of this paragraph (4)(U)5. if it can demonstrate to PHMSA, in accordance with the notification procedures in subsection (1)(M), that those installation compliance deadlines would be economically, technically, or operationally infeasible for a particular pipeline replacement project

6. If an operator elects to use alternative equivalent technology in accordance with paragraph (4)(U)4. or (4)(U)5., the operator must notify PHMSA in accordance with the procedures in subsection (1)(M). The operator must include a technical and safety evaluation in its notice to PHMSA. Valves that are installed as alternative equivalent technology must comply with subsections (12)(X) and (12)(Z). An operator requesting use of manual valves as an alternative equivalent technology must also include within the notification submitted to PHMSA a demonstration that

installation of an RMV as otherwise required would be economically, technically, or operationally infeasible. An operator may use a manual compressor station valve at a continuously manned station as an alternative equivalent technology, and use of such valve would not require a notification to PHMSA in accordance with subsection (1)(M), but it must comply with subsection (12)(Z).

7. The valve spacing requirements of paragraph (4)(U)1. do not apply to pipe replacements on a pipeline if the distance between each point on the pipeline and the nearest valve does not exceed:

A. Four (4) miles in Class 4 locations, with a total spacing between valves no greater than eight (8) miles;

B. Seven and one-half (7 1/2) miles in Class 3 locations, with a total spacing between valves no greater than fifteen (15) miles; or

C. Ten (10) miles in Class 1 or 2 locations, with a total spacing between valves no greater than twenty (20) miles

(12) Operations

(W) Change in Class Location - Change in Valve Spacing

1. If a class location change on a transmission pipeline occurs after October 5, 2022, and results in pipe replacement, of two (2) or more miles, in the aggregate, within any five (5) contiguous miles within a twenty-four- (24-) month period, to meet the maximum allowable operating pressure (MAOP) requirements in subsections (12)(G) or (12)(M), then the requirements in subsections (4)(U), (12)(X), and (12)(Z), as applicable, apply to the new class location, and the operator must install valves, including rupture-mitigation valves (RMV) or alternative equivalent technologies, as necessary, to comply with those subsections. Such valves must be installed within twenty-four (24) months of the class location change in accordance with the timing requirement in paragraph (12)(G)6. for compliance after a class location change.

2. If a class location change on a gas transmission pipeline occurs after October 5, 2022, and results in pipe replacement of less than two (2) miles within five (5) contiguous miles during a twenty-four (24) month period, to meet the MAOP requirements in subsections (12)(G) or (12)(M), then within twenty-four (24) months of the class location change, in accordance with paragraph (12)(G)6., the operator must either:

A. Comply with the valve spacing requirements of paragraph (4)(U)1. for the replaced pipeline segment; or

B. Install or use existing RMVs or alternative equivalent technologies so that the entirety of the replaced pipeline segments are between at least two (2) RMVs or alternative equivalent technologies. The distance between RMVs and alternative equivalent technologies for the replaced segment must not exceed twenty (20) miles. The RMVs and alternative equivalent technologies must comply with the applicable requirements of subsection (12)(Z).

3. The provisions of paragraph (12)(W)2. do not apply to pipeline replacements that amount to less than one thousand feet (1,000') within any one (1) contiguous mile during any twenty-four (24-) month period.

(X) Transmission Lines – Valve Shut-Off for Rupture Mitigation.

1. Applicability. For new or entirely replaced transmission pipeline segments with diameters of six inches (6") or greater that are located in high-consequence areas (HCA) or Class 3 or Class 4 locations and that are installed after April 10, 2023, an operator must install or use existing rupture mitigation valves (RMV), or an alternative equivalent technology, according to the requirements of this subsection and subsections (4)(U) and (12)(Z). RMVs and alternative equivalent technologies must be operational within fourteen (14) days of placing the new or replaced pipeline segment into service. An operator may request an extension of this fourteen- (14-) day operation requirement if it can demonstrate to PHMSA, in accordance with the notification procedures in subsection (1)(M), that application of that requirement would be economically, technically, or operationally infeasible. The requirements of this subsection apply to all applicable pipe replacement projects, even those that do not otherwise involve the addition or replacement of a valve. This subsection does not apply to pipe segments in Class 1 or Class 2 locations that have a potential impact radius (PIR), as defined in 49 CFR 192.903 (incorporated by reference in section (16)), that is less than or equal to one hundred fifty feet (150')

2. Maximum spacing between valves. RMVs, or alternative equivalent technology, must be installed in accordance with the following requirements:

A. Shut-off segment. For purposes of this subsection, a “shut-off segment” means the segment of pipe located between the upstream valve closest to the upstream endpoint of the new or replaced Class 3 or Class 4 or HCA pipeline segment and the downstream valve closest to the downstream endpoint of the new or replaced Class 3 or Class 4 or HCA pipeline segment so that the entirety of the segment that is within the HCA or the Class 3 or Class 4 location is between at least two RMVs or alternative equivalent technologies. If any crossover or lateral pipe for gas receipts or deliveries connects to the shut-off segment between the upstream and downstream valves, the shut-off segment also must extend to a valve on the crossover connection(s) or lateral(s), such that, when all valves are closed, there is no flow path for gas to be transported to the rupture site (except for residual gas already in the shut-off segment). Multiple Class 3 or Class 4 locations or HCA segments may be contained within a single shut-off segment. The operator is not required to select the closest valve to the shut-off segment as the RMV, as that term is defined in subsection (1)(B), or the alternative equivalent technology. An operator may use a manual compressor station valve at a continuously manned station as an alternative equivalent technology, but it must be able to be closed within thirty (30) minutes following rupture identification, as that term is defined in subsection (1)(B). Such a valve used as an alternative equivalent technology would not require a notification to PHMSA in accordance with subsection (1)(M).

B. Shut-off segment valve spacing. A pipeline subject to paragraph (12)(X)1. must have RMVs or alternative equivalent technology on the upstream and downstream side of the pipeline segment. The distance between RMVs or alternative equivalent technologies must not exceed:

(I) Eight (8) miles for any Class 4 location,

(II) Fifteen (15) miles for any Class 3 location, or

(III) Twenty (20) miles for all other locations.

C. Laterals. Laterals extending from shut-off segments that contribute less than five percent (5%) of the total shut-off segment volume may have RMVs or alternative equivalent technologies that meet the actuation requirements of this section at locations other than mainline receipt/delivery points, as long as all of the laterals contributing gas volumes to the shut-off segment do not contribute more than five percent (5%) of the total shut-off segment gas volume based upon maximum flow volume at the operating pressure. For laterals that are twelve inches (12”) in diameter or less, a check valve that allows gas to flow freely in one direction and contains a mechanism to automatically prevent flow in the other direction may be used as an alternative equivalent technology where it is positioned to stop flow into the shut-off segment. Such check valves that are used as an alternative equivalent technology in accordance with this paragraph (12)(X)2.C. are not subject to subsection (12)(Z), but they must be inspected, operated, and remediated in accordance with subsection (13)(U), including for closure and leakage to ensure operational reliability. An operator using such a check valve as an alternative equivalent technology must notify PHMSA in accordance with subsections (1)(M) and (4)(U), and develop and implement maintenance procedures for such equipment that meet subsection (13)(U); and,

D. Crossovers. An operator may use a manual valve as an alternative equivalent technology in lieu of an RMV for a crossover connection if, during normal operations, the valve is closed to prevent the flow of gas by the use of a locking device or other means designed to prevent the opening of the valve by persons other than those authorized by the operator. The operator must develop and implement operating procedures and document that the valve has been closed and locked in accordance with the operator's lock-out and tag-out procedures to prevent the flow of gas. An operator using such a manual valve as an alternative equivalent technology must notify PHMSA in accordance with subsections (1)(M) and (4)(U).

(Z) Transmission Lines - Response to a Rupture; Capabilities of Rupture-Mitigation Valves (RMVs) or Alternative Equivalent Technologies. (192.636)

1. Scope. The requirements in this subsection apply to rupture-mitigation valves (RMVs), as defined in subsection (1)(B), or alternative equivalent technologies, installed pursuant to paragraphs (4)(U)4.–6. and subsection (12)(X).

2. Rupture identification and valve shut-off time. An operator must, as soon as practicable but within thirty (30) minutes of rupture identification (see subparagraph (12)(J)1.L.), fully close any RMVs or alternative equivalent technologies necessary to minimize the volume of gas released from a pipeline and mitigate the consequences of a rupture.

3. Open valves. An operator may leave an RMV or alternative equivalent technology open for more than thirty (30) minutes, as required by paragraph (12)(Z)2., if the operator has previously established in its operating procedures and demonstrated within a notice submitted under subsection (1)(M) for PHMSA review, that closing the RMV or alternative equivalent technology would be detrimental to public safety. The request must have been coordinated with appropriate local emergency responders, and the operator and emergency responders must determine that it is safe to leave the valve open. Operators must have written procedures for determining whether to leave an RMV or alternative equivalent technology open, including plans to communicate with local emergency responders and minimize environmental impacts, which must be submitted as part of its notification to PHMSA.

4. Valve monitoring and operation capabilities. An RMV, as defined in subsection (1)(B), or alternative equivalent technology, must be capable of being monitored or controlled either remotely or by on-site personnel as follows:

A. Operated during normal, abnormal, and emergency operating conditions;

B. Monitored for valve status (i.e., open, closed, or partial closed/open), upstream pressure, and downstream pressure. For automatic shut-off valves (ASV), an operator does not need to monitor remotely a valve's status if the operator has the capability to monitor pressures or gas flow rate within each pipeline segment located between RMVs or alternative equivalent technologies to identify and locate a rupture. Pipeline segments that use manual valves or other alternative equivalent technologies must have the capability to monitor pressures or gas flow rates on the pipeline to identify and locate a rupture; and

C. Have a back-up power source to maintain SCADA systems or other remote communications for remote-control valve (RCV) or automatic shutoff valve (ASV) operational status, or be monitored and controlled by on-site personnel.

5. Monitoring of valve shut-off response status. The position and operational status of an RMV must be appropriately monitored through electronic communication with remote instrumentation or other equivalent means. An operator does not need to monitor remotely an ASV's status if the operator has the capability to monitor pressures or gas flow rate on the pipeline to identify and locate a rupture.

6. Flow modeling for automatic shutoff valves. Prior to using an ASV as an RMV, an operator must conduct flow modeling for the shut-off segment and any laterals that feed the shut-off segment, so that the valve will close within thirty (30) minutes or less following rupture identification, consistent with the operator's procedures, and in accordance with subsection (1)(B) and this subsection. The flow modeling must include the anticipated maximum, normal, or any other flow volumes, pressures, or other operating conditions that may be encountered during the year, not exceeding a period of fifteen (15) months, and it must be modeled for the flow between the RMVs or alternative equivalent technologies, and any looped pipelines or gas receipt tie-ins. If operating conditions change that could affect the ASV set pressures and the thirty- (30-) minute valve closure time after notification of potential rupture, as defined in subsection (1)(B), an operator must conduct a new flow model and reset the ASV set pressures prior to the next review for ASV set pressures in accordance with subsection (13)(U). The flow model must include a time/pressure chart for the segment containing the ASV if a rupture occurs. An operator must conduct this flow modeling prior to making flow condition changes in a manner that could render the thirty- (30-) minute valve closure time unachievable.

7. Manual valves in non-HCA, Class 1 locations. For pipeline segments in a Class 1 location that do not meet the definition of a high consequence area (HCA), an operator submitting a notification pursuant to subsections (1)(M) and (4)(U) for use of manual valves as an alternative equivalent technology may also request an exemption from the requirements of paragraph (12)(Z)2.

8. Manual operation upon identification of a rupture. Operators using a manual valve as an alternative equivalent technology as authorized pursuant to subsections (1)(M), (4)(U), and (12)(X) and this subsection must develop and implement operating procedures that appropriately designate and locate nearby personnel to ensure valve shutoff in accordance with this subsection and subsection (12)(X). Manual operation of valves must include time for the assembly of necessary operating personnel, the acquisition of necessary tools and equipment, driving time under heavy traffic conditions and at the posted speed limit, walking time to access the valve, and time to shut off all valves manually, not to exceed the maximum response time allowed under paragraphs (12)(Z)2. or (12)(Z)3. of this subsection.