


Safety of Gas Transmission Pipelines: MAOP Reconfirmation, Expansion of Assessment Requirements, and Other Related Amendments

a.k.a. Gas Mega Rule #1


Miscellaneous



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Agenda


- PHMSA notifications
- Gas gathering line applicability
- Standards incorporated by reference
- Records
- Launcher / receiver safety



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PHMSA Notifications
- § 192.18


- To use a different integrity assessment method, analytical method, sampling approach, or technique (i.e., "other technology") that differs from that prescribed in Part 192, notify PHMSA 90-days in advance
 - If no objection received from PHMSA by day 91, proceed with proposed alternative technology
- Electronic notifications: InformationResourcesManager@dot.gov
- Mail notifications:
 - ATTN: Information Resources Manager
 - DOT/PHMSA/OPS
 - East Building, 2nd Floor, E22-321
 - 1200 New Jersey Ave. SE
 - Washington, DC 20590.



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Gathering Line Applicability


- Final Rule (§ 192.9) clarified what sections within Parts 191 & 192 are **NOT** applicable to regulated gathering lines.
- If transmission lines are required to follow Parts 191 & 192, regulated gas gathering must also comply unless specifically referenced in § 192.9



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Type A & Offshore Gathering Line Applicability - § 192.9 Exceptions


- § 192.150 Passage of internal inspection devices
- 192.285(e) Plastic pipe: Qualifying persons to make joints; 5 year record retention of plastic pipe joiners
- 192.493 In-line inspection of pipelines
- 192.506 Transmission lines: Spike hydrostatic pressure test
- 192.607 Verification of Pipeline Material Properties and Attributes: Onshore steel transmission pipelines
- 192.619(e) Maximum allowable operating pressure: Steel or plastic pipelines; applicability for MAOP reconfirmation
- 192.624 Maximum allowable operating pressure reconfirmation: Onshore steel transmission pipelines
- 192.710 Transmission lines: Assessments outside of high consequence areas
- 192.712 Analysis of predicted failure pressure
- Subpart O Gas Transmission Pipeline Integrity Management



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Type B Gathering Line Applicability - § 192.9 Clarifications


- If a Type B gathering line is new, replaced, relocated, or otherwise changed, the design, installation, construction, initial inspection, and initial testing must be in accordance with transmission requirements except
 - 192.67 Records: Material properties
 - 192.127 Records: Pipe design
 - 192.205 Records: Pipeline components
 - 192.227(c): Qualification of welders and welding operators; 5 year record retention of welder qualifications
 - 192.285(e) Plastic pipe: Qualifying persons to make joints; 5 year record retention of plastic pipe joiners
 - 192.506 Transmission lines: Spike hydrostatic pressure test
- Type B gathering must follow Subpart I Requirements for Corrosion Control except
 - 192.493: In-line inspection of pipelines
- Type B gathering must establish MAOP using 192.619(a), (b), and (c)



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Industry Standards Incorporated By Reference


- NACE Standard Practice 0102, "In-Line Inspection of Pipelines," 2010 Edition
 - IBR approved for §§ 192.150(a) and 192.493
 - FAQ #5 – 2017 Edition will be incorporated by reference in future rulemaking
- API STANDARD 1163, "In-Line Inspection Systems Qualification," Second edition, April 2013, Reaffirmed August 2018, (API STD 1163)
 - IBR approved for § 192.493
- ASME/ANSI B16.5–2003, "Pipe Flanges and Flanged Fittings," October 2004, (ASME/ANSI B16.5)
 - IBR approved for §§ 192.147(a), 192.279, and 192.607(f)



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Industry Standards Incorporated By Reference


- ASME/ANSI B31G–1991 (Reaffirmed 2004), "Manual for Determining the Remaining Strength of Corroded Pipelines," 2004, (ASME/ANSI B31G)
 - IBR approved for §§ 192.485(c), 192.632(a), 192.712(b), and 192.933(a)
- ANSI/ASNT ILI–PQ–2005(2010), "In-line Inspection Personnel Qualification and Certification," Reapproved October 11, 2010, (ANSI/ASNT ILI–PQ)
 - IBR approved for § 192.493
- AGA, Pipeline Research Committee Project, PR–3–805, "A Modified Criterion for Evaluating the Remaining Strength of Corroded Pipe," (December 22, 1989), (PRCI PR–3–805 (R–STRENG))
 - IBR approved for §§ 192.485(c); 192.632(a); 192.712(b); 192.933(a) and (d).



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Records, Records, Records...


- § 192.5 Class locations
 - (d) An operator must have records that document the **current** class location of each pipeline segment and that **demonstrate how** the operator determined each current class location
 - historical class locations do not require documentation



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Records, Records, Records...
- Steel Transmission Lines Only


- New requirements for capture and retention of material records installed after July 1, 2020
 - Life of pipe records
- Requires retention of material records that an operator currently has for materials installed prior to July 1, 2020
 - Life of pipe records
- If records essential for established MAOP are not available for materials installed prior to July 1, 2020, then follow MAOP reconfirmation requirements in new § 192.624, if applicable
- Records generated by the material properties verification process at § 192.607, must also be retained by operators for the life of the pipeline



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Records, Records, Records...
- Onshore Steel Transmission Lines


- § 192.619 Maximum allowable operating pressure: Steel or plastic pipelines
 - Records used to establish MAOP prior to & after July 1, 2020 must be collected & retained for the life of the pipeline
 - If § 192.624 used for MAOP reconfirmation, records of reconfirmation methods must be collected & retained for the life of the pipeline



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Records, Records, Records...
Steel Transmission, Offshore Gathering & Type A Gathering Pipelines


- § 192.67 Records: Material properties
 - diameter, yield strength, ultimate tensile strength, wall thickness, seam type, and chemical composition of materials for pipe in accordance with §§ 192.53 and 192.55
 - Records must include tests, inspections, and attributes required by the manufacturing specifications applicable at the time the pipe was manufactured or installed
- § 192.127 Records: Pipe design
 - Records documenting that the pipe is designed to withstand anticipated external pressures and loads in accordance with § 192.103
 - Records documenting that the determination of design pressure for the pipe is made in accordance with § 192.105.



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Records, Records, Records...
Steel Transmission, Offshore Gathering & Type A Gathering Pipelines


- § 192.205 Records: Pipeline components
 - Records documenting the manufacturing standard and pressure rating to which each **valve** was manufactured and tested in accordance with this subpart
 - Flanges, fittings, branch connections, extruded outlets, anchor forgings, and other components with material yield strength grades of **42,000 psi (X42) or greater and with nominal diameters of greater than 2 inches** must have records documenting the manufacturing specification in effect at the time of manufacture, including yield strength, ultimate tensile strength, and chemical composition of materials



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Records, Records, Records...
Steel Transmission, Offshore Gathering & Type A Gathering Pipelines


- § 192.227(c) Qualification of welders
 - Effective July 1, 2021
 - Records demonstrating each individual welder qualification at the time of construction must be retained for a minimum of **5 years** following construction
- FAQ-4. What date or what activities should an Operator use to compute the beginning of the five-year period from which it needs to retain individual joining or welding qualification records pursuant to § 192.227(c)?
 - **PHMSA considers the end of construction to be prior to an Operator placing a gas, as defined by §§ 192.1(a) and 192.3, into the pipeline, making it an in-service pipeline, and operating that pipeline.** Construction-related activities, such as painting, final right-of way grading and clean up, and environmental mitigation, may continue after the pipeline has been placed in service.



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Records, Records, Records...
- Plastic Transmission Lines Only


- § 192.285 Plastic pipe: Qualifying persons to make joints
 - Effective July 1, 2021
 - records demonstrating each person's plastic pipe joining qualifications at the time of construction in accordance with this section must be retained for a minimum of **5 years** following construction
- FAQ-4. What date or what activities should an Operator use to compute the beginning of the five-year period from which it needs to retain individual joining or welding qualification records pursuant to § 192.227(c)?
 - **PHMSA considers the end of construction to be prior to an Operator placing a gas, as defined by §§ 192.1(a) and 192.3, into the pipeline, making it an in-service pipeline, and operating that pipeline.** Construction-related activities, such as painting, final right-of way grading and clean up, and environmental mitigation, may continue after the pipeline has been placed in service.



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Records, Records, Records...


- § 192.517 Records: Tests
 - An operator must make, and **retain for the useful life of the pipeline**, a record of each test performed under §§ 192.505, 192.506, and 192.507
 - § 192.505 Strength test requirements for steel pipeline to operate at a hoop stress of 30 percent or more of SMYS
 - § 192.506 Transmission lines: Spike hydrostatic pressure test - **NEW**
 - § 192.507 Test requirements for pipelines to operate at a hoop stress less than 30 percent of SMYS and at or above 100 p.s.i. (689 kPa) gage



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Launcher / Receiver Safety
- § 192.750

- Compliance deadline: July 1, 2021
- Launcher / Receivers equipped with a pressure relief device before removal or opening of the barrel
- Relief device must indicate that pressure has been relieved in the barrel or prevent opening of the barrel when pressurized, if pressure has not been relieved.



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