



Pipeline Safety- Final Rule

Safety of Gas Transmission Pipelines (RIN 3)



U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

PHMSA: Your Safety is Our Mission





Docket No. PHMSA–2011–0023

Amdt 192-129

Docket No. PHMSA–2011–0023

Amdt 191-30

Publication Date: November 15, 2021

Correction Publication Date: May 4, 2022

Effective Date: May 16, 2022

Second Correction Publication Date: June 13, 2022



§192.3 Definitions

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

This new regulation did not change the definition of gathering it just added new types of regulated onshore gathering.

§192.8 Operators are still required to use API RP 80 1st edition (April 2000) to determine if gathering.



Previously Defined Gathering: Type A and Type B

Type A

- Metallic and the MAOP produces a hoop stress of $>20\%$ SMYS.
- Non-metallic and the MAOP > 125 psig.
- In a class 2, 3, or 4



Previously Defined Gathering: Type A and Type B

Type B

- Metallic and the MAOP produces a hoop stress of $<20\%$ SMYS.
- Non-metallic and the MAOP < 125 psig.
- In a class 3 or 4



New Types of Gathering: Type C and R

Type C

Outside diameter greater than or equal to 8.625 inches and any of the following:

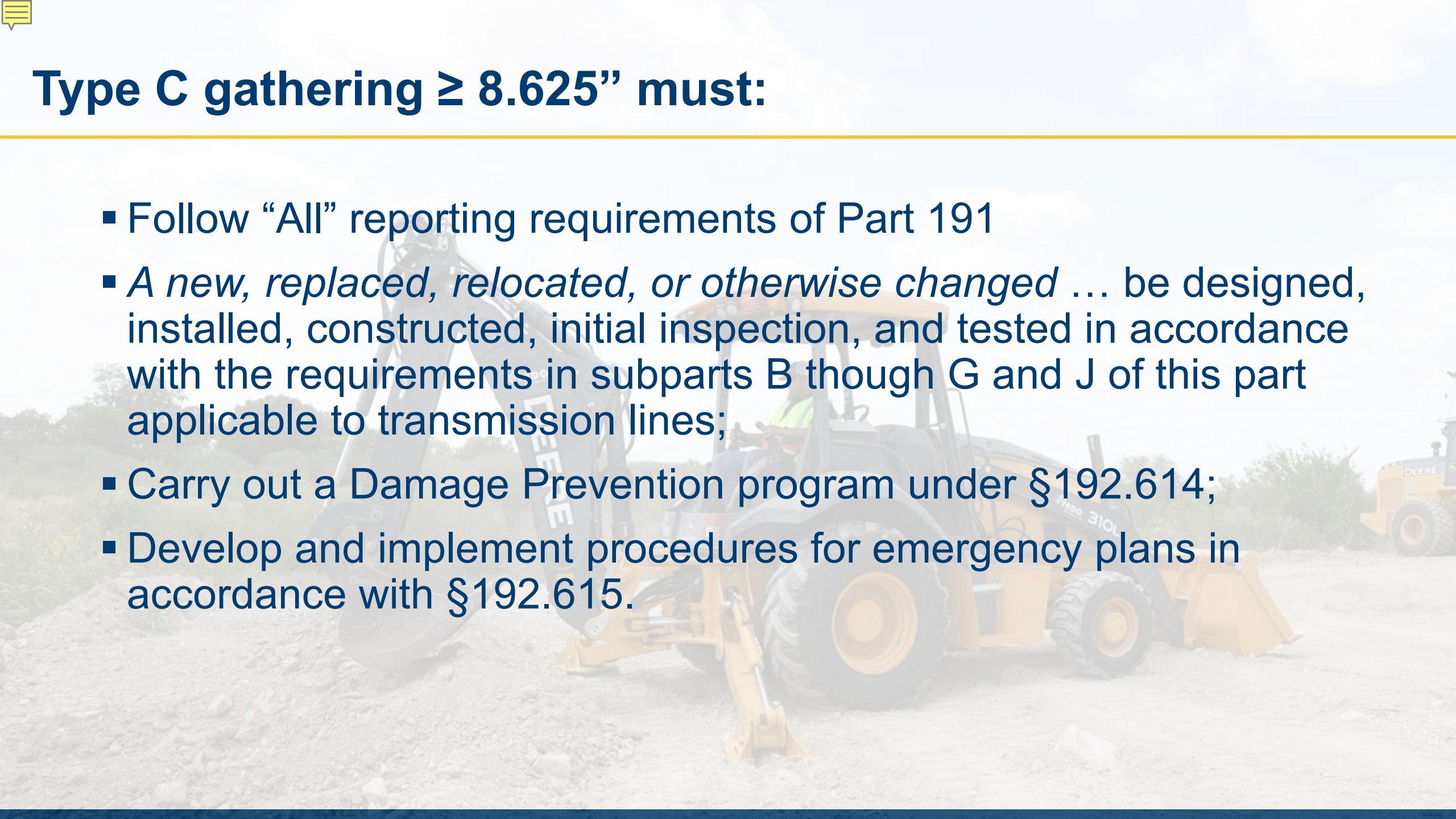
- Metallic and the MAOP produces a hoop stress of $> 20\%$ SMYS
- If the stress unknown, segment is metallic and the MAOP > 125 psig or
- Non-metallic and the MAOP > 125 psig (862 kPa).
- In a class 1

Type R

All others



Type C gathering ≥ 8.625 ” must:

- Follow “All” reporting requirements of Part 191
 - *A new, replaced, relocated, or otherwise changed ...* be designed, installed, constructed, initial inspection, and tested in accordance with the requirements in subparts B through G and J of this part applicable to transmission lines;
 - Carry out a Damage Prevention program under §192.614;
 - Develop and implement procedures for emergency plans in accordance with §192.615.
- 

8” or greater AND meet criteria you must also:

- *If metallic* – Install control corrosion according to Subpart I
- Public Awareness Program - §192.616
- Install and Maintain Line Markers - §192.707
- Conduct Leakage Surveys - §192.706 (using leak-detection equipment)



> 12” AND meet criteria you must also:



- *If plastic pipe, comply with all applicable requirements of this part for plastic pipe or components. ...and*
- Establish the MAOP of the pipeline under §192.619(a) or (c) ...



What is the Criteria?

- *Method 1.* ... located within a Potential Impact Circle containing a building intended for human occupancy or other impacted site.
...
- *Method 2.* The segment is located within a class location unit (see § 192.5) containing a building intended for human occupancy or other impacted site.

Summary of Type C Requirements

Criteria	Type C requirements (cumulative)
Diameter equal to greater than 8.625 inches 90,000 miles	<ul style="list-style-type: none"> -Damage prevention § 192.614 -Emergency Plans § 192.615 - New/replaced - <u>Design, installation, construction, inspection, and testing requirements*</u>
Diameter 8.625 inches through 12.75 inches with a building within the potential impact circle (PIC): 20,000 miles	The above and: <ul style="list-style-type: none"> -Public Awareness § 192.616 -Line Markers § 192.707 -Corrosion control (subpart I - Leakage surveys (192.706)
Diameter > 12.75 inches through 16 inches with a building within the PIC, or Diameter > 16 inches 14,000 miles	The above and: <ul style="list-style-type: none"> -Plastic pipe requirements -Establish maximum allowable operating pressure (MAOP, § 192.619)

* Exceptions created for short replacement sections and composite pipe



Important Dates:

- Incident Reports (Type R): May 16, 2022
- Determine End Points, Document Methodology: November 16, 2022
- Annual Reports: March 15, 2023
- Compliance with §192.9 for Type C that exist prior to May 16, 2022: May 16, 2023
- Compliance with §192.9 for lines that become Type C after May 16, 2022: 1 year from date



Pipeline Safety- Final Rule Safety of Gas Transmission Pipelines (RIN 2)



U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

PHMSA: Your Safety is Our Mission



Docket No: PHMSA-2011-0023

**Repair Criteria, Integrity Management
Improvements, Cathodic Protection,
Management of Change, and Other
Related Amendments**

Docket No: PHMSA-2011-0023
Amdt No 192-132

Amdt 192-132

Publication Date: August 24, 2022

Effective Date: May 24, 2023

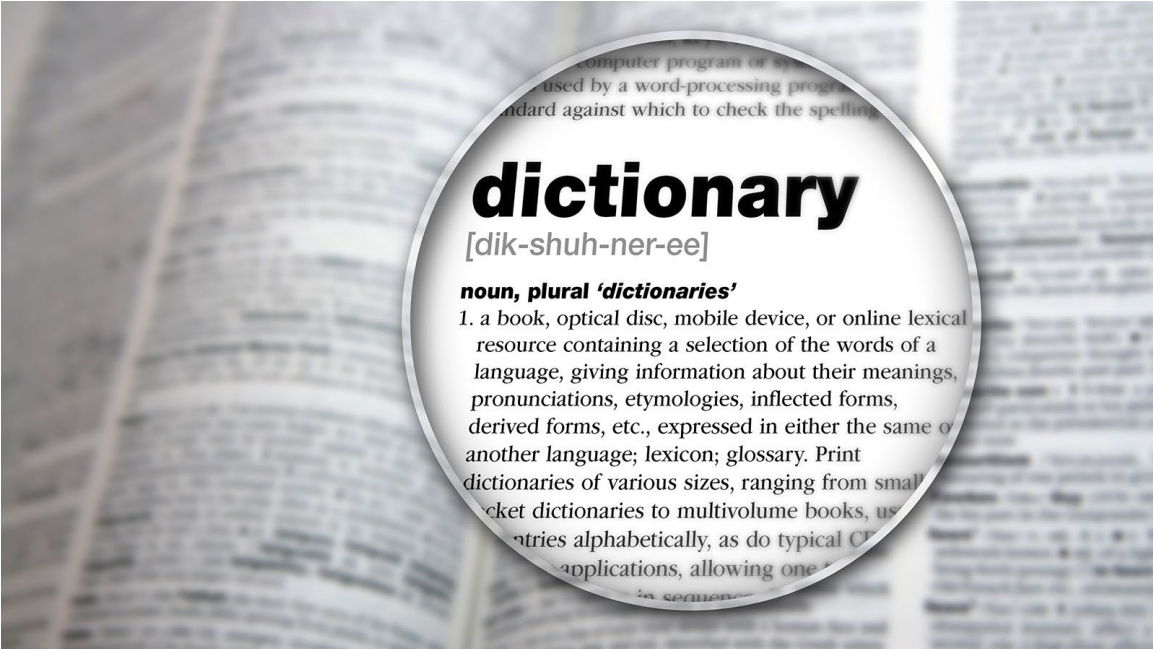
Major Provisions

- Definitions—§192.3
- Management of Change—§§ 192.13, 192.911
- Corrosion Control—§§ 192.319, 192.461, 192.465, 192.473, 192.478, 192.935
- Inspections Following Extreme Weather §192.613
- Repair Criteria—§§ 192.714, 192.933
- IM Clarifications—§§ 192.917, 192.935
- Strengthening Assessment Methods—§§ 192.923, 192.927, 192.929



Definitions §192.3

- Transmission Line
- Distribution Center
- Close Interval Survey
- Dry Gas or Dry Natural Gas
- Hard Spot
- In-line Inspection
- In-line Inspection Tool or Instrumented Internal Inspection Device
- Wrinkle Bend



The definitions clarify technical terms used in part 192 or in this rulemaking.



Management of Change §§ 192.13 and 192.911

- Establishes requirements for the Management of Change process in ASME/ANSI B31.8S, section 11.
- Previously management of change needed for High Consequence Areas (HCAs) only.
- 18-month compliance period for non-HCAs
- Evaluate and mitigate significant changes.
- Reason for change, authority for approving changes, analysis of implications, acquisition of required work permits, etc.

Post Construction Inspection Coating Inspection

§§ 192.319 and 192.461

- Requires operators to perform an above-ground indirect assessment (ACVG/DCVG/“other technology”) after backfilling is completed and remediate any coating damage found.
- In both O&M and construction sections





Interference currents (192.473)

- Requires interference surveys when potential monitoring indicates significant increase in stray current or when new potential stray current sources (pipelines, HVAC power lines, etc.) are introduced.
- Analysis of results of survey to determine cause of interference and whether it could cause significant corrosion, impede safe operation, or adversely affect environment or public.
- Development of remedial action plan and remediation within 12 to 15 months after completing survey.



Internal corrosion control – Onshore transmission monitoring and mitigation (§192.478)

- Requires operators of GT pipelines with corrosive constituents in the gas to monitor for gas quality, evaluate gas monitoring data yearly, and evaluate IC monitoring and mitigation program yearly.



Inspections Following Extreme Events - §192.613

- Transmission pipeline facilities after events that have the likelihood of damaging pipeline facilities and taking appropriate remedial action.
- Inspection must commence within 72 hours after the point in time when the operator reasonably determines the affected area can be safely accessed by personnel and equipment, and such personnel and equipment are available. If unable, must notify PHMSA Region Director as soon as practicable.



Repair Criteria - Immediate (§§ 192.714 & 192.933)

- Anomalies where the metal loss is greater than 80 percent of wall thickness.
- Metal loss anomalies with a PFP $\leq 1.1 \times$ MAOP.
- A topside dent that has metal loss, cracking, or a stress riser (“unless” ECA in accordance w/§192.712).
- Anomalies where there is an indication of metal loss affecting certain longitudinal seams.
- Cracks or crack-like anomalies meeting specified criteria.
- Indications of anomalies that require immediate action.



Repair Criteria – Scheduled (1-year / 2-year conditions)

- Smooth topside dents with a depth greater than 6% of the pipeline diameter (“unless” ECA [...]).
- Dents greater than 2% of the pipeline diameter located at a girth weld, longitudinal, or spiral seam weld (“unless” ECA [...]).
- Bottomside dent with metal loss, cracking, or stress riser (“unless” ECA).



Repair Criteria - Monitored

- Bottomside dents with depth greater than 6% (§192.714) and where ECA shows critical strain levels are not exceeded (§192.933).
- Dents with depth greater than 2% that affects pipe curvature at a girth weld or longitudinal or helical seam weld, and “where” ECA [...].
- Dents with metal loss, cracking, or a stress riser, and “where” ECA [...].
- Certain metal loss anomalies and cracks with a PFP ≥ 1.39 x MAOP in Class 1 locations or where Class 2 locations have uprated pipe, and that has a PFP ≥ 1.5 x MAOP in all other Class 2, Class 3, and Class 4 locations.



Summary of Changes to IM Clarifications

§§ 192.917 (a) – (d) & 192.935(c)

- Inserts specific attributes from ASME/ANSI B31.8S into the regulations for risk assessments.
- Specifies operators must perform risk assessments that are adequate for evaluating the effects of interacting threats. Account and compensate for uncertainties in the model and data used.
- Requires operators use validated information and data as inputs and validate their risk models considering incident, leak, and failure history, and other historical information.
- Provides specific examples of integrity threats for plastic pipe that must be addressed.



Summary of Changes to ICDA and SCCDA

§§ 192.923, 192.927, & 192.929

- Incorporates NACE SP0206-2006 into the regulations for ICDA and establishes additional requirements for ICDA for covered segments.
- Incorporates NACE SP0204-2008 into the regulations for SCCDA and establishes additional requirements for SCCDA.



Important Dates:

- **Rule Effective Date: May 24, 2023**
- Management of Change – February 26, 2024
- IM Threats May 24, 2023 complete Feb 26, 2024
- IM Risk Assessment Feb 26, 2024



Steven W. Kirkland
PHMSA Training & Qualifications
Steven.Kirkland@dot.gov
405-423-1353

