

2022 – March 24 – Editorial Section

Approved additions to guide material under §§192.3, 192.624, and G-192-1. **Ready to Recirculate for 2nd LB.**

TR Number	19-52
Primary	192.624
Purpose	Review and develop GM as appropriate in light of Amendment 192-125
Origin/Rationale	Amendment 192-125: See new §192.624.
Assigned to	IMP/Corr Task Group

LB Processing Note: The proposed changes from 1st letter ballot in LB4-2021 are shown in **yellow highlight**. Disapproved votes from LB4-2021 are copied at the end of this document.

Section 192.3

GLOSSARY OF COMMONLY USED ABBREVIATIONS

Note: For added organizational abbreviations, see Guide Material Appendix G-192-1, Sections 4 and 5.

Abbreviation	Meaning
...	...
<u>ECA</u>	<u>engineering critical assessment</u>
...	...
<u>PFP</u>	<u>predicted failure pressure</u>
...	...
<u>TVC</u>	<u>traceable, verifiable, and complete</u>

Section 192.624

~~*This guide material is under review following Amendment 192-125.*~~

[Letter Ballot Note: This is all new guidance material under §192.624, so no underlining is necessary]

1 GENERAL

This section applies to onshore steel transmission pipeline segments. MAOP reconfirmation is also applicable to transmission line pipe and non-line pipe components within appurtenant facilities including compressor, meter, and pressure limiting stations. MAOP reconfirmation is required (§192.624(a)) for pipeline segments with non-TVC MAOP records located within the following areas.

Applicability	Pipeline Location
MAOP Records (§ 192.619(a)(2)) not Traceable, Verifiable, and Complete (TVC)	High Consequence Area
	Class 3 Location
	Class 4 Location
Pipelines with MAOP Grandfathered by §192.619(c) and ≥ 30% SMYSGrandfathered Pipeline (§192.619(c)) and MAOP ≥ 30% SMYS	High Consequence Area
	Class 3 Location
	Class 4 Location
	Moderate Consequence Area and ILLI-capable

- (a) Traceable, Verifiable, and Complete (TVC) **Records Considerations** – Operators may consider the following definitions that are taken from the PHMSA preamble to the Final Rule of Amendment 192-125:
- (1) Traceable records are those which can be clearly linked to original information about a pipeline segment or facility. Traceable records might include pipe mill records, which include mechanical and chemical properties; purchase requisition; or as-built documentation indicating minimum pipe yield strength, seam type, wall thickness and diameter. Careful attention should be given to records transcribed from original documents as they may contain errors. Information from a transcribed document, in many cases, should be verified with complementary or supporting documents.
 - (2) Verifiable records are those in which information is confirmed by other complementary, but separate, documentation. Verifiable records might include contract specifications for a pressure test of a pipeline segment complemented by pressure charts or field logs. Another example might include a purchase order to a pipe mill with pipe specifications verified by a metallurgical test of a coupon pulled from the same pipeline segment. In general, the only acceptable use of an affidavit would be as a complementary document, prepared and signed at the time of the test or inspection by a qualified individual who observed the test or inspection being performed.
 - (3) Complete records are those in which the record is finalized as evidenced by a signature, date or other appropriate marking such as a corporate stamp or seal. For example, a complete pressure testing record should identify a specific segment of pipe, who conducted the test, the duration of the test, the test medium, temperatures, accurate pressure readings, and elevation information as applicable. An incomplete record might reflect that the pressure test was initiated, failed and restarted without conclusive indication of a successful test. A record that cannot be specifically linked to an individual pipeline segment is not a complete record for that segment. Incomplete or partial records are not an adequate basis for establishing MAOP or MOP. If records are unknown or unknowable, a more conservative approach is indicated.
 - (4) A single record may be confirmed as being TVC.
 - (5) Pressure test records must meet the requirements of § 192.619(a)(2).
- (b) For pipelines that have TVC test records **in accordance with §192.619(a)(2), but tested** prior to **July 1, 1965, but the confirmed MAOP is established with restricted to §192.619(a)(3) (the lowest of §192.619(a))** ~~those records would not meet the records requirements of §192.624(a)(1) and the pipeline MAOP must be reconfirmed.~~

2 PROCEDURES AND COMPLETION DATES

- (a) Operators will be required to report annual MAOP reconfirmation progress to PHMSA as part of the annual submittal of Form F 7100.2-1 (PHMSA Annual Report for Natural and Other Gas Transmission and Gathering Pipeline Systems).
- (b) If a pipeline segment requires MAOP reconfirmation due to a change in location class, then operators must confirm or revise the MAOP for that segment within 24 months. This follows §§192.609 and 192.611 timeframes.

3 RECONFIRMATION METHODOLOGIES – **CLARIFICATIONS AND CONSIDERATIONS**

- (a) Method 1 – Pressure Test.
If any of the records are not TVC, then missing records must be obtained and/or material attributes verified in accordance with § 192.607 **(§192.624(c)(1))**.
- (b) Method 2 – Pressure Reduction.
The minimum cumulative duration of eight hours where the highest actual sustained pressure must have been reached during the continuous 30-day period **(§192.624(c)(2))**. The eight-hour period does not need to be continuous; it can be made up of shorter periods that over the course of 30 days amount to at least eight hours above a certain pressure. **Sustained pressure may be substantiated using operator's pressure logs for the pipeline (e.g., SCADA data, pressure measurement points).**

- (c) Method 3 – Engineering Critical Assessment (ECA).
- (1) Operators should consider developing procedures on how to conduct an ECA within their organization.
 - (2) Examples of technically proven models for calculating predicted failure pressures include those listed below. Other methods, **otherwise**, must use a technically proven fracture mechanics model appropriate to the failure mode, material properties, and boundary condition used (pressure test, ILI) **(§192.632)**.
 - (i) Brittle Failure.
 - (A) Newman-Raju Model
 - (B) PipeAssess PI™
 - (ii) Ductile Failure.
 - (A) Modified Log-Secant Model
 - (B) API 579 – Level II or Level III
 - (C) CorLas™
 - (D) PAFFC Model
 - (E) PipeAssess PI™
- (3) See guide material under §192.632.**
- (d) Method 4 – Pipe Replacement.
- (e) Method 5 – Pressure Reduction for Pipeline Segments with Small Potential Impact Radius (PIR). The minimum cumulative duration of eight hours where the highest actual sustained pressure must have been reached during the continuous 30-day period **(§192.624(c)(5))**. The eight-hour period does not need to be continuous; it can be made up of shorter periods that over the course of 30 days amount to at least eight hours above a certain pressure. **Sustained pressure may be substantiated using operator's pressure logs for the pipeline (e.g., SCADA data, pressure measurement points).**
- (f) Method 6 – Alternative Technology.
If no response is provided by PHMSA within the 90-day timeframe subsequent to notification, then operators may proceed with the use of the alternative technology **(§192.18)**.
- (g) Operators should consider developing a process or decision matrix for reconfirmation method selection and pipeline segment prioritization. The following factors should be **included-considered** in the development.
- (1) History of the pipeline segment and current pipeline conditions.
 - (2) Reliability and resiliency of the impacted pipeline network.
 - (3) Ability to take a pipeline out of service for pressure testing (feasibility of Method 1).
 - (4) Pressure reduction impacting the ability to run an in-line inspection (ILI) tool (feasibility of Methods 2 and 5).
 - (5) Ability to accommodate the passage of an ILI tool or availability of assessment tools (feasibility of Method 3).
 - (6) Constructability (e.g., pipeline accessibility, permitting).
 - (7) Impact to customers, the public, and the environment (e.g., service interruptions, sensitive areas).
 - (8) Cost management.
 - (9) Specific PHMSA requirements (e.g., deadlines).

4 RECORDS

Records for abandoned pipelines do not need to be retained.

Guide Material Appendix G-192-1

Under Section 1.14 Other Documents:

API 579	Fitness-for-Service	§192.624
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End of GM portion of TR; LB4-2021 results posted below for review.

LB4-2021 results: 25 approved, 3 approved with comment, 2 disapproved

Disapproved votes are copied below:

Paul Oleksa

Under 192.624, specific Code references need to be inserted with the following words or phrases:

Section 1: "is required"

Section 3(a) "must"

Section 3(b) "must"

Section 3(c)(2) "must"

Section 3(e) "must"

Section 3(f) "may"

Along with the leading sentence of Section 1(a), I recommend inserting a sentence something like "Note that these definition may be very helpful, but they are not in the regulations."

Erich Trombley

GM Section 192.624 1. General (b), This section requires more clarification. What exactly are "those records", records pertaining to historical operating pressure or records under 192.619(a)(2)? Also, I believe if the TVC test records comport to the requirements of §192.619(a)(2), regardless if the test date preceded July 1,1965, then the segment satisfies the requirements for 192.624(a)(1). Otherwise, the segment could not have its MAOP established under 192.619(a)(3), the lowest of 192.619(a)(1-3), and would be considered grandfathered under 192.619(c) which would require MAOP reconfirmation.

Section 3. The subsections under Section 3 simply state the methodologies without an acknowledgment of what is required for that methodology. I understand we don't want the GM to parrot the code, especially if the code is clear. As such, I suggest renaming the section something along the lines of "RECONFIRMATION METHODOLOGIES – CLARIFICATIONS AND CONSIDERATIONS" which better describes the intent of the section.