TR 2019-42 Data Gathering

TR Number	**19-42**
Primary Reference	192.127
Purpose	Review existing GM and revise as appropriate in light of Amendment 192-125.
Origin/Rationale	Amdt. 192-125
Assigned to	Design

Note: *Revisions are shown in yellow highlight and red font.*

Section 192.127

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

[Editorial Note for 2nd LB: The following highlighted guide material was presented as all new guide material in LB4-2024 and the TG decided to remove and start over based upon LB Comments.]

~~1 GENERAL~~

~~Data gathering and integration are important elements of good IM practices. Data gaps can and do historically exist and closure of gaps may be a continuous improvement objective. Section 192.127(a) and (b), and in particular (a), states an operator must collect or "make" such records. Physical attributes contained in design pressure and operational characteristics, such as anticipated external loading of an operator's pipelines, are key data elements to fully understand the risks to and the integrity of a pipeline system (see ASME/ANSI B31.8S, Section 4, and Table 1, Data Elements for Prescriptive Pipeline Integrity Program). Gaps that are assigned worst-case values might inadvertently skew risk analysis and potentially degrade the value of risk ranking or decisions.~~

~~2 RELATION TO MAOP CALCULATIONS~~

~~Design pressure is one of the first inputs to MAOP determination. This is an opportunity to ensure the pipe attributes and associated records are "traceable, verifiable, and complete" and the reliability of the design calculation can be traced and linked to material records. Section 192.127(c) ties the initial MAOP establishment and the use of §192.607 verifications to collect or consolidate the material attributes used in both design pressure and combined load calculations (§192.103).~~

~~3 EXAMPLES OF RECORDS RETAINED~~

~~Operators must retain any records they currently have for their pipelines per the requirements of §192.127. Having records in the plural assures accessibility, retention, and availability for use. The following are several examples.~~

~~(a) Hydrotest records may be extended to integrate the design equation(s), percent SMYS during the test, component ratings, and other attributes to establish the MAOP of the tested segment within this record. The segment may also be cross-referenced to stationing, mileposts, or other geospatial identification. Further, the validation might include names, dates, and signatures of personnel and those individuals reviewing and approving such records.~~

~~(b) Engineering drawings might also be annotated with notes or tables outlining the design equation(s), percent SMYS, wall thicknesses, diameters, grades, and component ratings used in the design. An alternative may be alignment sheets with strip data reflecting the design equation inputs or results. Engineering drawings might be subject to review and approval processes in both design and as-built with signatures or initials of personnel or approvers recorded.~~

~~(c) Pipeline specifications or design-basis documents might be created and retained with construction records that clearly state the anticipated conditions and the methods to meet the requirements of the pipeline or piping.~~

[TG Note for 2nd LB: The following is all new Guide Material to recirculate for a 2nd letter ballot and therefore is not underlined or highlighted. A former version was abandoned (above) after a combination of eight LB comments proved to be overly complex for something that could simplified to No guide material needed.]

1 GENERAL

(a) The design equation (see §192.105) and its variables are inputs to risk, integrity management, operations, maintenance, and future decision-making processes. In addition, anticipated external pressures, loads, and resultant combined stresses (see §192.103) that may have influenced the selection of wall thickness are inputs. Prior to July 1, 2020, Part 192 was silent on records retention with respect to these citations resulting in data gaps or no records.

(b) For pipelines other than transmission pipelines, consider retention of records for the life of the asset.

2 ESTABLISHING MAOP

These records are inputs to MAOP determination (§192.619) or MAOP reconfirmation (§192.624). The design parameters are inputs for future records that are traceable, verifiable, and complete (TVC). The design, construction, and operations of a pipeline may result in multiple records that contain the same attributes, parameters, calculations, and complementing records that contribute to TVC.

3 EXAMPLES OF RECORDS

Below are some examples of records that could be used.

(a) Piping specifications in engineering and design files.
(b) Design basis documents.
(c) Engineering drawings and subsequent record or as-built of same.
(d) Hydrotest, strength, or other testing documents.
(e) Alignment sheets or strip maps.
(f) GIS and mapping systems.