

Design and Operation of Subsea Production Systems—General Requirements and Recommendations

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Design and Operation of Subsea Production Systems—General Requirements and Recommendations

1 Scope

API 17A provides general requirements and recommendations for the development and operation of subsea production/injection systems, from the concept development phase to decommissioning and abandonment. This document references other API 17-series documents, as well as various relevant industry documents.

A complete subsea production/injection system comprises several subsystems necessary to produce hydrocarbons from one or more subsea wells and transfer them to a processing/host facility located offshore (fixed, floating, or subsea) or onshore, or to inject water/gas via subsea facilities and/or wells (as shown in Figure 1).

NOTE The term “subsea production system” is used generically throughout this document to describe both production and injection systems.

Flexible pipe standards form part of the API 17-series of documents (see 4.3.3); however, RP 17A does not generally cover flowlines/pipelines or production/injection risers (associated with flowlines/pipelines). These components form part of a complete Subsea Production System (SPS), as shown in Figure 1.

If requirements as stated in this document are in conflict with, or are inconsistent with, requirements as stated in other API 17-series documents, the specific requirements in the subsystem series document(s) take precedence.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

API Recommended Practice 17B, *Recommended Practice for Flexible Pipe*

API Specification 17D, *Design and Operation of Subsea Production Systems—Subsea Wellhead and Tree Equipment*

API Specification 17E, *Specification for Subsea Umbilicals*

API Standard 17F, *Standard for Subsea Production Control Systems*

API Standard 17G, *Design and Manufacture of Subsea Well Intervention Systems*

API Recommended Practice 17G3, *Design of Subsea Well Intervention Systems Using Non-Ferrous Alloys*

API Recommended Practice 17G5, *Intervention Workover Control Systems (IWOCS)*

API Recommended Practice 17H, *Remotely Operated Tools and Interfaces on Subsea Production Systems*

API Specification 17J, *Specification for Unbonded Flexible Pipe*

API Specification 17K, *Specification for Bonded Flexible Pipe*

API Specification 17L1, *Specification for Flexible Pipe Ancillary Equipment*

API Recommended Practice 17L2, *Recommended Practice for Flexible Pipe Ancillary Equipment*