

E DIN EN ISO 13628-1:2024-01 (E)

Erscheinungsdatum: 2023-12-01

Oil and gas industries including low carbon energy - Design and operation of subsea production systems - Part 1: General requirements and recommendations (ISO/DIS 13628-1:2023); English version prEN ISO 13628-1:2023

Contents		Page
	Foreword	v
	Introduction	vi
1	Scope	1
2	Normative references	1
3	Terms and definitions, acronyms and abbreviations	2
	3.1 Terms and definitions.....	2
	3.2 Acronyms and abbreviations.....	4
4	Subsea production system	5
	4.1 General.....	5
	4.2 System configuration.....	5
	4.3 Overview of API 17 series Documents by Categories.....	6
	4.3.1 System Level Documents.....	6
	4.3.2 Subsea Hardware (Wellheads, Trees, Manifolds, Structures, Connectors, and Pumps).....	7
	4.3.3 Flowlines and Risers.....	8
	4.3.4 Control Systems.....	9
	4.3.5 Intervention Systems.....	9
5	Systems Engineering	10
	5.1 General.....	10
	5.2 Systems Engineering Process.....	11
	5.3 Subsea System Production Assurance and Reliability Management.....	11
6	Equipment Design Requirements	12
	6.1 Design Basis.....	12
	6.2 Safety.....	13
	6.2.1 General.....	13
	6.2.2 Safety Strategy.....	13
	6.2.3 Safety by Design.....	14
	6.3 Barrier and Isolation Considerations.....	14
	6.3.1 Barrier Philosophy.....	14
	6.3.2 Barrier Requirements.....	15
	6.3.3 Subsea Isolation Philosophy.....	16
	6.4 Materials.....	16
	6.5 Structural Analysis.....	17
	6.5.1 General.....	17
	6.5.2 Wellhead, Tree, and C/WO Riser System Analysis.....	17
	6.6 Pumps, Piping, and Valves.....	18
	6.7 Dropped Objects and Fishing Gear Loads.....	18
	6.8 Lifting Components, Padeyes, and Unpressurized Structural Components.....	18
	6.9 Colors and Marking.....	19
	6.10 Tolerance Evaluation.....	19
	6.11 Design for Installation.....	19
	6.12 Environmental Considerations.....	20
	6.13 Evaluation of Subsea Pressure Testing Limitations.....	20
	6.14 Design for Intervention.....	20

7	Technology Management Guidance	21
	7.1 Technology Development and Qualification.....	21
	7.2 Obsolescence Management.....	21
8	Manufacture, Assembly, Testing, Installation, and Commissioning Guidance	22
	8.1 Manufacture.....	22
	8.2 Assembly.....	22
	8.3 Testing.....	23
	8.3.1 General.....	23
	8.3.2 Inspection and Test Plans.....	24
	8.4 Transportation, Preservation, and Storage.....	24
	8.5 Load-out and Installation.....	25
	8.6 Commissioning/Systems Completion.....	26
9	Operations Guidance	26
	9.1 Integrity Management.....	26
	9.1.1 Condition Monitoring.....	26
	9.1.2 Reliability Data Collection/Reporting.....	27
	9.1.3 Subsea Production System Maintenance.....	27
	9.2 Production Management.....	27
10	Well Intervention Guidance	28
11	Decommissioning Guidance	28
	Annex A (informative) Generic Terms for Use in API 17 series documents	30
	Annex B (informative) Systems Engineering Processes	39
	Bibliography	41