

API Subcommittee 17 Industry Standards for Subsea Equipment

**John M. Bednar – BP
API SC17 Chairman**

Message

- Overview of API Subcommittee 17 Subsea
 - Organization / Membership
 - Suite of Subsea Standards
- Current Focus Areas

Subcommittee 17 Subsea Membership

- 79 Subcommittee Members
- 26 Voting Members
 - Operators:
Anadarko, ATP, BHP, BP, Chevron, ENI, ExxonMobil, Hess,
Petrobras America, Shell, Statoil
 - Suppliers:
Aker Solutions, Cameron, Dril-Quip, FMC Technologies, GE Oil & Gas,
Master Flo Valve, Schlumberger Subsea, Ultra Deep
 - General Interest:
Genesis, Independent, IntecSea, JP Kenny, Oceaneering Int'l,
Tetra Technologies, Universal Pegasus
- 5 Non-Voting Ballot Comment Only
 - Contitech Rubber Industrial, DTC Int'l, DUCO, US Gov't,
Wellstream Int'l

SC 17 Standards – Trees & Manifolds

API 17A Subsea Production Systems

API 17B, 17J, 17K, 17L1, 17L2 – Flexible Pipe & Ancillary Equipment

API 17C — TFL Systems

API 17D Subsea Wellheads and Trees

API 17E — Production Umbilicals

API 17F — Production Controls

API 17G — Completion/Workover Risers

API 17H — ROV Interfaces & ROT Intervention Systems

API 17N — Subsea Reliability & Technical Risk Management

API 17O — High Integrity Pressure Protection Systems (HIPPS)

API 17P Templates and Manifolds

API 17Q — Subsea Qualification Forms

API 17R — Flowline Connection Systems

API 17S — Subsea Metering

API 17U — Insulation and Buoyancy

API 17V — Subsea Safety Systems

API 17W — Subsea Capping Stacks

API 2RD — Dynamic Risers for Floating Production

API 17TR4 — Equipment Pressure Ratings

API 17TR5 — Avoidance of Blockages in Production Control Systems

API 17TR6 — Attributes of Prod. Chemicals in Subsea Production Systems

API 17TR7 — Subsea Connector Qualification Procedures

API 17TR8 — HPHT Guidelines



SC 17 Standards – Flowlines & Risers

API 17A — Subsea Production Systems

API 17B 17J, 17K, 17L1, 17L2

Flexible Pipe & Ancillary Equipment

API 17C TFL Systems

API 17D — Subsea Wellheads and Trees

API 17E — Production Umbilicals

API 17F — Production Controls

API 17G — Completion/Workover Risers

API 17H — ROV Interfaces & ROT Intervention Systems

API 17N — Subsea Reliability & Technical Risk Management

**API 17O *Hi Integrity Pressure
Protection Systems (HIPPS)***

API 17P — Templates and Manifolds

API 17Q — Subsea Qualification Forms

API 17R *Flowline Connection Systems*

API 17S — Subsea Metering

API 17U *Insulation & Buoyancy*

API 17V — Subsea Safety Systems

API 17W — Subsea Capping Stacks

API 2RD *Dynamic Risers for Floating Prod*

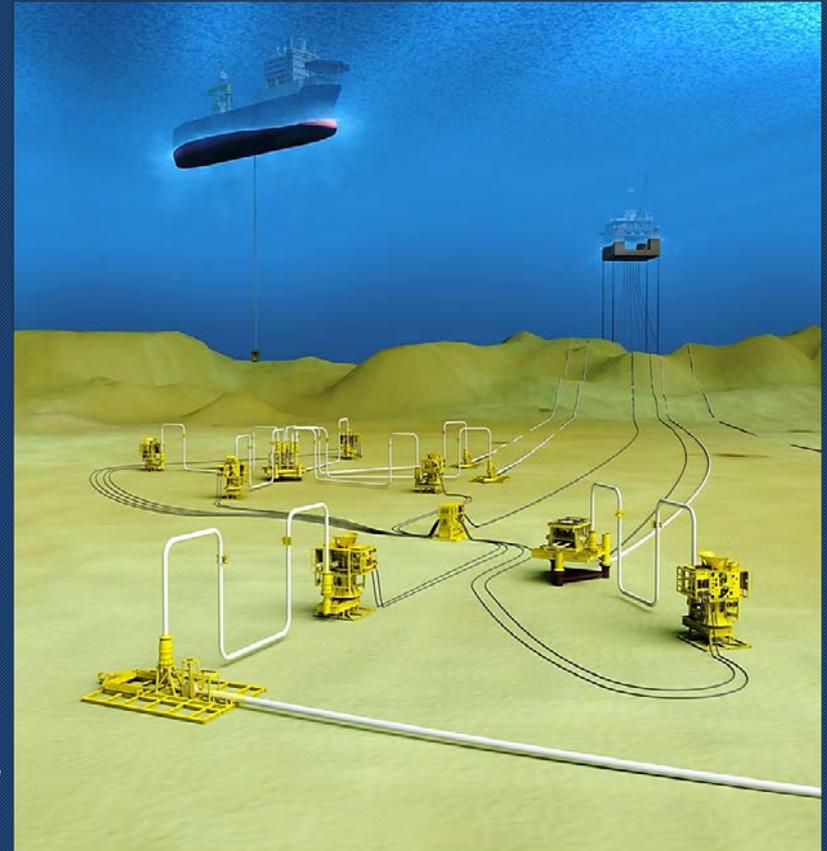
API 17TR4 — Equipment Pressure Ratings

API 17TR5 — Avoidance of Blockages in Production Control Systems

API 17TR6 — Attributes of Prod. Chemicals in Subsea Production Systems

API 17TR7 — Subsea Connector Qualification Procedures

API 17TR8 — HPHT Guidelines



SC 17 Standards – Control Systems

API 17A — Subsea Production Systems

API 17B, 17J, 17K, 17L1, 17L2 – Flexible Pipe & Ancillary Equipment

API 17C — TFL Systems

API 17D — Subsea Wellheads and Trees

API 17E *Production Umbilicals*

API 17F *Production Controls*

API 17G — Completion/Workover Risers

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API 17V *Subsea Safety Systems*

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API 2RD — Dynamic Risers for Floating Production

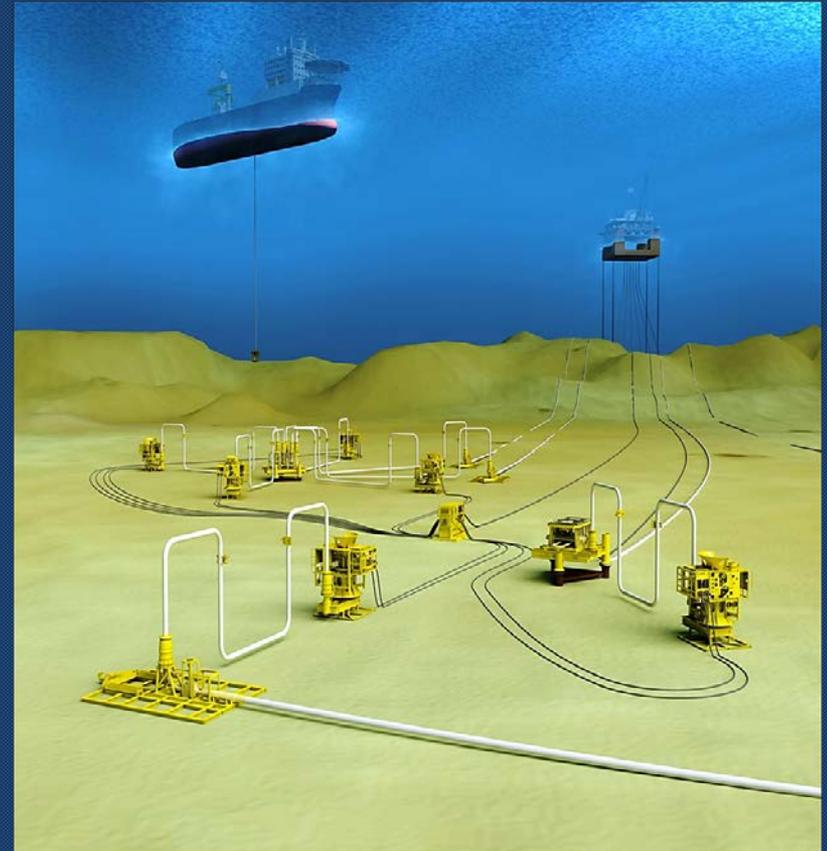
API 17TR4 — Equipment Pressure Ratings

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API 17TR7 — Subsea Connector Qualification Procedures

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SC 17 Standards – Intervention

API 17A — Subsea Production Systems
API 17B, 17J, 17K, 17L1, 17L2 – Flexible Pipe & Ancillary Equipment
API 17C — TFL Systems
API 17D — Subsea Wellheads and Trees
API 17E — Production Umbilicals
API 17F — Production Controls

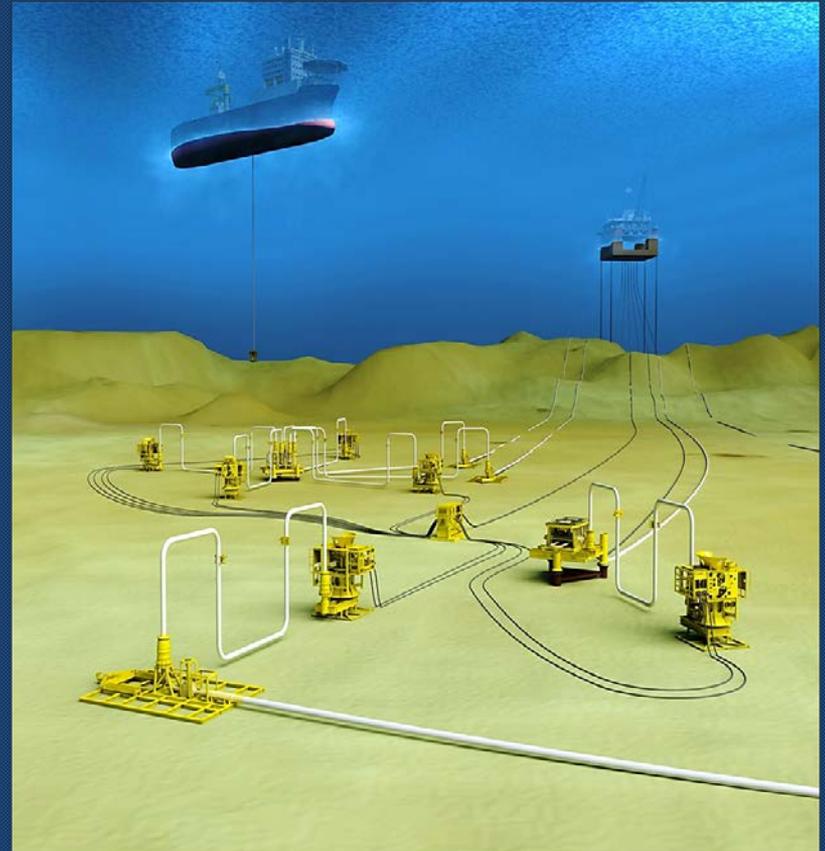
API 17G *Completion/Workover Risers*

API 17H *ROV Interfaces & ROT Intervention Systems*

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SC 17 Standards – Methods / Specialties

API 17A — Subsea Production Systems

API 17B, 17J, 17K, 17L1, 17L2 – Flexible Pipe & Ancillary Equipment

API 17C — TFL Systems

API 17D — Subsea Wellheads and Trees

API 17E — Production Umbilicals

API 17F — Production Controls

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Technical Reports – Topical Issues

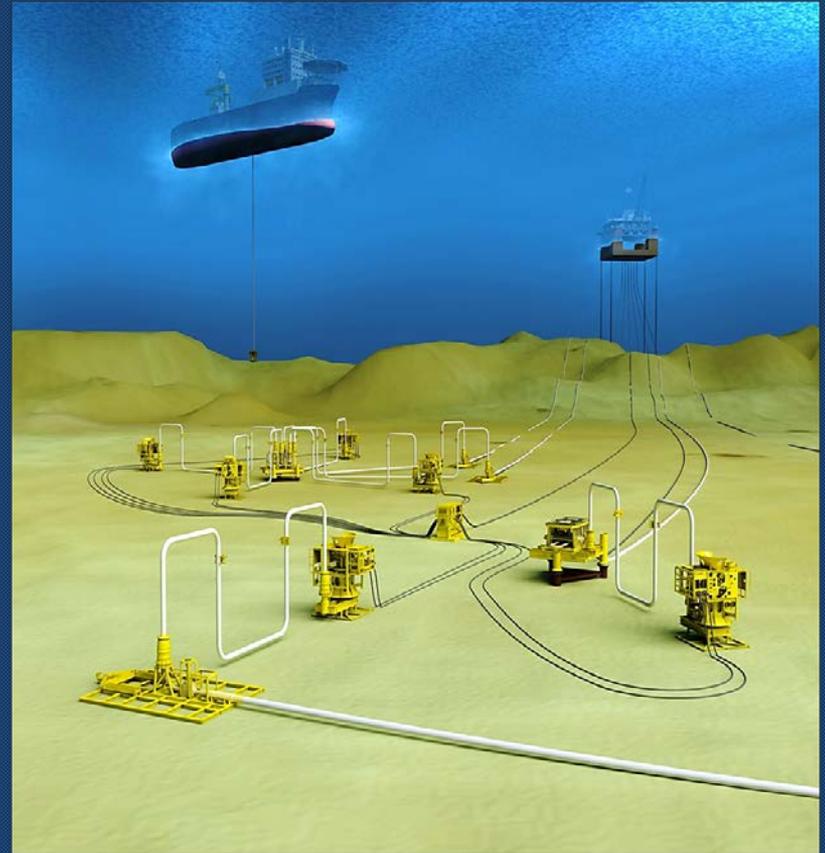
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API 17TR7 — Subsea Connector Qualification Procedures

API 17TR8 — HPHT Guidelines



Standard Development & Mgmt

- Drivers for Revised Subsea Documents
 - Evolution of standardized technologies & practices
 - Broadening of performance envelopes
 - Additions / Modifications to address technical issues
 - Enhancements to analytical methods / reliability
 - Maintained priority for elements of HSSE
- Drivers for New Subsea Documents
 - Maturity of new subsea technologies
 - Recommended practices for enhanced performance
 - Industry technical input as basis for gov't regs

Current Focus Areas

- 17D Subsea Wellheads & Trees –
(Clarifications to application of latest rev)
- 17F Subsea Controls –
(General revision; upgrade key technical elements)
- 17G Completion Workover Systems –
(Upgrade RP to Spec; work key technical elements)
- 17H ROV Interfaces --
(Resolve hot stab interface standards)

Current Focus Areas

- 17N Subsea Reliability –
(Incorporating integrity management)
- 17O HIPPs –
(Revising Section 9; upgrading treatment of qualification/performance)
- 17 V Subsea Control Safety System Spec –
(API 14C equivalent for subsea facilities)
- 17W Capping Stacks --
(Sister document to API 53 for BOP Stacks)

Current Focus Areas

- 17TR8 – SC17 specific applications for HPHT in response to PER15K
- TRx – Impacts of External Pressure on Subsea Hydrotesting

John M. Bednar – BP
API SC17 Chairman
281-381-0510

[John.Bednar @ bp.com](mailto:John.Bednar@bp.com)