API SC 17
Subsea Electrical Equipment

June, 2018
BACKGROUND

• Assigned Action from API SC17 meeting in January 2018
  “review the existing SC17 suite of document for requirements for SS electrical actuators, transformers and motors. Make a recommendation if a new document should be proposed for SS electrical actuators, transformers and motors.”
BACKGROUND

- 3 phase power
- Low Voltage - < 1000 VAC
- Medium Voltage – 1000 VAC – 35K VAC
- High Voltage - > 35K VAC
BACKGROUND

• API 17 Suite does not currently address the following topics
  – Electric actuators
  – Subsea electric motors
  – Subsea transformers
  – Subsea electrical distribution
  – Subsea medium voltage connectors
  – Subsea variable speed drives
  – Subsea switchgear
IEEE 61886 Working Group

Mission

- Advance the development of codes and standards for subsea electrical systems and equipment

Objective

- Oversee the development of PARs for Standards for the Subsea Electrical Study Group according to the Study Group Scope and procedures
IEEE 61886 – Road Map

IEC TC18
JWG 31
Subsea Electrical Power Standardization (SEPS)
Joint Industry Project

- Subsea Electrical Power Transmission & Distribution Design
- Static & Dynamic Subsea Cables (Umbilical, Jumper, ESP)
- Subsea Submersible Pumps
- LV Connectors & Penetrators
- Subsea Switchgear
- Subsea ASD
- Subsea UPS

Project Working Group – 61886.2
Subsea Transformers

Project Working Group – 61886.3
Subsea Motors

IEC/IEC – 61886.1
MV Penetrators and Connectors

IEC TC18
JWG 31

2017
2018
2019
2019
2018
2018

Target dates

Subsea Electrical Power Standardization (SEPS) Joint Industry Project

Other Potential Technologies

Subsea Submersible Pumps
LV Connectors & Penetrators
Subsea Switchgear
Subsea ASD
Subsea UPS
RECOMMENDATION

Form new taskgroup to cover topics listed above, using the following reference material:

- IEC/IEEE 61886.1 - MV Penetrators & Connectors
- IEC/IEEE 61886.2 – subsea transformers
- IEC/IEEE 61886.3 – subsea motors
- IEC/IEEE 61886.4 – subsea electrical power transmission and distribution
- IEC/IEEE 61886.5 – subsea cables
- Text from API 17X 1st ballot
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