ISO/TC 67/SC 7
Offshore structures

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N 768 8.2 WG3 SC7 Update March 2015

Document type: Meeting report

Date of document: 2015-03-10

Expected action: MEET

Action due date: 2015-03-11

No. of pages: 23

Background:

Committee URL: http://isotc.iso.org/livelink/livelink/open/tc67sc7
Work Group 3 – Fixed Steel Structures

Convenor: Moises Abraham, Chevron

36th ISO/TC67/SC7 Meeting
Delft, March 2015
ISO 19901-1 Metocean

Revision Project Leader: Don Smith, ENI
Co-Leader: Markku Santala, Chevron
ISO 19901-1 (2nd Ed) FDIS was submitted to ISO for voting on 10th of February 2015.

The FDIS ballot starts April 2nd 2015 (estimate).

Closing of balloting 2 months later.

Authors had to remove the USA regional annex from the document, as they could not get approval to use the new API 2Met document in time.

Authors replaced the outdated USA regional annex with “see API RP 2MET” references.
ISO 19901-2 Seismic Design

Revision Project Leader: Douglas Stock, Digital Structures
Panel Composition + Activities

- **5th & 6th meetings – Oct, Nov 2014 Houston and London**
  - at least 6 participants in each including a few call-ins
  - 4 to 6 hour meetings
  - hosted by ABS and DNV-GL

- **Draft version out to panel mid February 2015**
  - surprisingly received about 40 **new** comments from panel
  - working to resolve comments with smaller panel groups
  - trying to have resolution within the month of March
  - will retain any unresolved comments until later
  - rejected one comment about changing “collapse should be avoided” to “collapse shall be avoided”

- **Anticipating having draft to panel/OGP early April 2015**
Annex B - Seismic Map Update

- End of Feb received 1st draft contract from API for 50% mapping work funding. Have responded to their “exclusive” clauses to make terms acceptable/sharable. Awaiting their response.
- Have just submitted funding request to OGP, assuming their terms and response can be resolved relatively quickly.
- Have initiated contract talks with mapping contractor.
- Hoping to be over contractual issues and be able to start work April 1 (+/-).
ISO 19901-3 Topsides

Revision Project Leader: Christopher Morris, BP
ISO 19901-3 Topsides of Fixed and Floating Platforms

- The 2nd Edition of ISO 19901-3 was published in 2014.
- Chris Morris to present NWIP for 3rd Ed. to SC7 in Delft.
Major Accomplishments:

- **N 749** “Clarification of the intent of the existing text in ISO 19902 Annex A.9.9.3.3” was published in October 2014.
- One WG3 Meeting – Houston, September 2014.
- One TP10 Meeting – Delft, March 2015:
  - Partial Factors Proposal and Decision
  - Path Forward on target Pf in clause A.9.9.3.3
- Draft of 2nd edition is 60% complete. Two key items remain:
  - Resolution of Materials Technical Panel inputs and
  - Alignment of ISO 19902 and ISO 19901-6 (Marine Operations).
Technical and Editorial Comment Database: (92) Technical and Editorial Comments

** A meeting with TP6 to be organized to resolve disagreement between Editing Panel and TP6
Small Technical Studies

- Parametric Study to Validate the Effects of Chord Load on the Strength of X-joints in Tension
  - Champion: Justin Bucknell
  - Status: Complete and results incorporated in 2nd Ed.

- Update ISO 19902 Tubular Member Strength Formulae, Extend Yield Strength Limit
  - Champion: Paul Frieze
  - Status: Complete and results incorporated in 2nd Ed.

- Methodology Statement of Load Factor Used in Offshore Platform Design
  - Champion: Albert Ku and Moises Abraham
  - Researcher: Bob Gilbert, Lance Manuel (UT)
  - Status: API funding approved. Waiting for proposal from UT.
Work Group 3 – Fixed Steel Structures

Next Steps:

- ISO 19902 Editing Panel to meet in March and August to incorporate final input from TPs.
- Next WG3 meeting – St John’s, Canada, September 2015
  - ISO 19902 2nd Edition DIS will be discussed in WG3 meeting.
OGP Offshore Structures - Development of a Global SIM Standard (Potential ISO 19901-9 SIM)

Project Leader: Pat O’Connor, BP
19901-9 SIM – Status (March 2015)

**SCHEDULE:**

- Original Plan - Rough Draft available for SC7 March Meeting
- Current Plan - Rough Draft available end of March 2015

**STATUS:**

- Document Layout complete – attached for information
- Updated draft sections from Task Groups (TGs) overdue

**ISSUES:**

- TGs require more time for updates, due next week
- Significant drafting required after receipt of TG updates
- Additional working meetings required to resolve issues
- Potential issue around GoM vs. N. Sea interpretation of performance standards based on calibrated failures vs. analytical failures experience
- Additional working meetings across TGs required.
SIM Committee Meetings (worldwide locations)

2013 – 2014:  (London; KL Malaysia; Houston; Copenhagen, London; Aberdeen, Houston and Singapore )

2015 Planned:  (Houston, March 18th; Houston, June 4th and London, late June/ early July, location and time TBD)

SIM Leadership (LT) Meetings (BP office and Lync call-ins)

2014:  4 total (every 2/3 months)

2015 Planned:  3 total (Feb 11th; April/May and June/July)

SIM Additional Planned Meetings (BP office)

- Evaluation / Strategy TG working meeting (March 17th)
- Chair + TG Meetings as required
TASK GROUPS:

- Data - Riaz Khan and Salvador Vargas
- Evaluation - Ramsay Fraser and Kaisheng Chen
- Strategy - Justin Bucknell and Abe Nezamian
- Program - Dan Gallagher and ? (need to confirm)
- Topsides - Doug Angevine and David Galbraith
- Floating Systems - Paul Frieze and Dan Gallagher
- Management System - Hugh Westlake and Gerhard Ersdal
- Decommissioning & Re-Use - Rudy Hall and Frank Buescher

NOTE: TGs to use SharePoint Site to Store Shared Information
In-service inspection and structural integrity management

Figure 23.1-1 — Phases of a structural integrity management cycle
In-service inspection and structural integrity management

Data Update

Data → Engineering evaluation → Initiator triggered

Yes → Assessment process → Clause 24 assessment

No → Inspection plan → Inspection programme

19902 states... “Prevention and mitigation measures should be considered at all stages of the assessment Process”
19901-9 SIM - Combines both Sections 23 & 24

Existing Information in Sections 23 & 24 maintained, but laid out to align with the SIM process. Also added new content on Management Framework; Decommissioning and Floating Systems (placeholder only).

**SIM Process:**

- Data  
  Recording what we have.
- Evaluation  
  Assessing and prioritizing the risk.
- Strategy  
  The plan to manage the risk.
- Program  
  Inspection, testing, and repairs.

**Management Framework:**

- Organization
- Competency
Structural Integrity Management (SIM) - Overview

• 4 Step SIM Process

• Some Important Factors for Aging Structures
  
  − Fatigue and Corrosion (Share Data Worldwide?)
  
  − Robustness (understand system strength and behavior ?)
  
  − Performance Standards (need to define for “fit for purpose” ?)
  
  − Performance Standards (need to be applicable worldwide ?)
  
  − Topsides (Fixed & Floating), to Include Fabric Maintenance ?

• Worldwide Consistency (Return Periods vs RSR’s, or Both ?)
• Need to align with API RP 2SIM calibrations for GoM
• Performance Standards (or Buckets) should be consistent with API 1,000 yr. for L1 and 2,500 yr. for Sudden Hurricane life safety etc.
• Need to align with N. Sea and ISO 19902 existing document Sections 23 and 24.
• Need to adjust for variations in hazard slopes worldwide.
• Needs to meet the intent of ALARP as applied in some areas.
• Need to align with ISO N 749 Technical Note.
First Rough Draft complete by end of March 2015.

Rough Draft to be Circulated to whole SIM committee for Comment

Rough Draft to be Issued to WG3 and SC7 for further Distribution & Comment

Chair to hold Working Meetings with TGs and Individuals to expedite DIS version

First Working Meeting to be held with Evaluation and Strategy TGs, March 17th

Three More SIM Committee Meetings Planned for 2015 (Houston & London)

Need ISO update of “N 749 – Technical Note, Clarification of 19902”

ISO 19901-9 SIM DIS Document to be Complete by end of July 2015