

ISO TC67 / SC7

Progress report for SC7 meeting

Milano, 4th – 5th June 2009

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WG7 meetings



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15. May 2004, Houston	– 28 attendees,	including	10 visitors	N-366
16. November 2004, Schiedam	– 22 attendees,	including	8 visitors	N-368
17. May 2005, Houston	– 25 attendees,	including	11 visitors	N-377
18. September 2005, London	– 24 attendees,	including	11 visitors	N-381
19. May 2006, Houston	– 37 attendees,	including	19 visitors	N-389
20. November 2006, Oslo	– 24 attendees,	including	8 visitors	N-403
21. May 2007, Houston	– 28 attendees,	including	11 visitors	N-409
22. September 2007, London	– 34 attendees,	including	20 visitors	N-421
23. May 2008, Houston	– 29 attendees,	including	14 visitors	N-430
24. October 2008, Copenhagen	– 29 attendees,	including	16 visitors	N-439
25. May 2009, Houston	– 30 attendees,	including	16 visitors	N-447

Future Meetings:

September 2009

City University Conference Week, London

May 2010

OTC week, Houston

Panels generally meet just before WG7 meetings.

Organisation of 19905

- 19905-1 – Normative and Informatives based on SNAME T&R 5-5A Guideline, Practice & parts of Commentary
- 19905-2 – Technical Report, to contain background materials, presently included in SNAME Commentary, but not suitable for inclusion in Informatives of 19905-1
- 19905-3 – SSA for Mobile floaters
(discuss later)

Organisation of 19905 (cont)

Contents of 19905-1

- 1-4. Scope, Normative refs., Terms, Symbols
5. Overall considerations
6. Data to be assembled for each site location
7. Loads
8. Structural modelling
9. Foundation modelling
10. Structural response
11. Long term applications
12. Structural Integrity (may include Working Stress option)
13. Acceptance criteria

Jack-Up Panels



Formed:

- P0 Preamble
- P1/2 Metocean / Loading (Actions)
- P3 Structures (Modelling, response, resistance)
- P4 Foundations
- P5 Seismic
- P10 Acceptance checks / P. Factors / Calibration
- P11 Long Term Applications (Fatigue/Inspection)

- Mike Hoyle (ND)
- Olav Mo (DNV)
- Pau-Lin Tan (ABS)
- Patrick Wong (ExxonMobil)
- Doug Stock (Digital Structures)
- John Stiff (ABS Group)
- Gregers Kudsk (Maersk)

Considered:

- P12 Mat Units
- P13 MOU Supported Drilling risers / conductors
- P14 Liftboats
- Regional Information
- P16 Alternative Assessment Methodologies
- P17 Operational Issues
- P53 19905-3**

- Low priority ? **(More)** New interest
- Not in our scope
- Low priority P15
- Not required ?
- P3 responsibility
- Hold
- John Stiff (ABS Group)**

- Have been working in Draft G since Jan 2007.
- Since last September, WG7 & the Technical Panels met in October 2008 in Copenhagen and in May 2009 during OTC week. Next meeting September 2009.
- After the October 2008 WG7 & Panel meetings the technical input to Draft G was essentially complete – but technical effort was still needed to:
 - **Complete P4 (Geotech) inputs to A.9 and Annex D.**
 - **Expand place-holders in 7 & A.7 (actions), including EWL & Kinematics factors**
 - **Address inclusion of action factor effects in ‘one-shot’ analysis.**
 - **Tidy-up/complete P10’s A.12 (member checks)**

Progress / Status (cont)



On the editorial side:

- The Editing Review Panel (ERP), Hoyle, Lewis, Mangiavacchi and Stock funded by OGP and Stiff by ABS, has continued to meet (September/October & December last year and February & March this year.
- The remaining OGP budget for the DIS will (just) cover a further meeting later this month, and (subsequent) preparation of the Figures. Were asked to cut existing budget, but there is no reasonable way of doing so.

Progress / Status (cont)



- The ERP completed the ISO-speak editing of the Normative at their Sept/Oct meeting last year, and has since been working through the Informative.
- The overall effort has been focussed on bringing Draft G (started in Jan 2007) to the point where it is ready to be issued as a DIS.
- There have been significant re-writes and some further re-organisation to improve clarity.
- Some of the technical inputs re EWL, Kinematics & foundations have been included.

- P4:
 - Held a teleconference in December. It is understood that useful progress was made, but the outputs have not yet been sighted.
 - Were due to have held a further teleconference early in March, but this did not happen.
- Consequently, the March ERP meeting spent significant time on a re-write of part of Clause A.9 that P4 was unlikely to deliver.

Progress / Status (cont)



- P10: John Stiff met with Paul Frieze & self in April in London to address many of the outstanding issues in clause P10's clause A.12.
Thanks to ABS, UK HSE & ND for making this possible.
- We have continued to find errors and typo's in SNAME.
- ERP has yet to review clauses A.12, B, C, D and E.

- More detailed guidance on Site Investigations expected from InSafeJIP (subject to agreement from participants).

Benchmarking



- 19905-1 is being benchmarked (checked against existing SNAME practice & for workability & completeness).
- Benchmarking sub-group was formed in 2007 (an IADC initiative).
- Sub-group comprises Pao-Lin Tan & John Stiff (ABS) with Dave Lewis (LEG), Jim Brekke (Transocean), Yi Li (Diamond), Ward Turner (ExxonMobil) & Rupert Hunt (Shell)

Benchmarking (cont)



This sub-group decided that checks should be made of:

- Clauses where the content is a significant departure from SNAME: member strength & earthquake assessment.
- The full document – in three phases, each involving more consulting companies and a wider range of checks.

Note:

The InSafeJIP on will (eventually) contribute to the component-level foundation checks i.e. calibration of the new load-penetration methodology.

Benchmarking – Member strength NOBLE DENTON

- Checking Clause 12, Member strength, was completed by Noble Denton – to scope from the benchmarking committee, funded by Shell.
- Key conclusions:
 - Clause 12 works for both prismatic chord members (BUT classes 3 & 4 could not be checked) & for all classes of tubular members.
 - The ISO results are similar to SNAME, except for slender members where ISO is less conservative than SNAME, due the effects of more favourable:
 - Column curve,
 - Effective length factors and
 - Resistance factorswhich remove un-necessary safety margins from the SNAME checks on slender members (OK'd by Peter Marshall for Shell).
 - A number of editorial and technical issues were identified.

Benchmarking – Earthquake



- The assessment procedure has recently been finalised.
- Scope for benchmarking being finalised – hopefully to be funded by Shell UK.
- Not considered to be a critical-path item.

Benchmarking – Full document



- Phase 1 was awarded to Noble Denton in January 2008. This was funded by Shell UK, the IADC J-U Committee & UK HSE.
- Key conclusions:
 - The document can be navigated from start to finish of a site specific assessment without major obstacles.
 - A number of editorial & technical corrections are (were) required.
 - Some changes and improvements were recommended.
 - Although not in the specified scope Noble Denton also made comparisons with the same cases using SNAME Rev 2.
 - The results are much as expected for the cases considered (more over – updated since last SC7 meeting).

Benchmarking – Full doc. (cont)



Case 1 (sand)	ISO 19905-1.9	SNAME 5-5A
Criteria	50-year return, individual extremes, ULS	
Chord Utilisation	0.78	0.97
Brace Utilisation	0.24	0.34
Chock Utilisation	0.62	0.70
Overturning Utilisation	0.71	0.66
Bearing Utilisation	2.32 [0.9m additional pen]	2.27 [0.8m additional pen]
Sliding Utilisation	0.93	0.90
Preload Utilisation	1.13	1.13

Case 2, same jack-up on a sand foundation, revealed similar results.

Benchmarking – Full doc. (cont)



- A draft Scope for Phase 2 was a deliverable from Phase 1.
- Need to benchmark fixed target - the DIS; there have been a number of technical changes since the Jan 2008 version used for Phase 1.
- The bench-marking sub-group has reviewed this and plans to issue a draft RFQ in Mid-May, with final RFQ by the end of June, with 3-week response period. Intent is to award contracts in August.
- 4 consultants will each consider a different pair of the 4 selected rigs to ISO.
- At least one consultant, with recent SNAME experience, will consider each rig to SNAME Rev 3 (still “just about to be issued” – 3 years on)
- Given the requirement for alignment points, the process is expected to take about 9 - 12 months.

WG 7 Matters

- Useful Panel Convenor meeting on Sunday before OTC.
- Key issues for Panels:
 - Review & accept all recent ERP updates;
 - Resolving all remaining in-text queries
- Need for a “health-warning” in DIS. Words drafted.
- Reference to 19906 added to scope (mirrors their ref to us)
- Need to finalise responses to Draft F comments (95% complete).
- TR inputs targeted for review at September meetings.

WG 7 Matters (cont)

<u>Clause</u>	<u>Remaining work</u>
1 – 6	Complete lists of symbols (if time permits)
7	Finalise input to bibliography
8, 10, C	Update figures, Review/update C
9, D	Some (significant) technical issues to resolve; intent to hold video-conference, but no sign of this happening
Various - P5	Finalise Informative
11	Need to insert P4 inputs
12	A few items to finalise – possible new Annex
13	Check text
Bibliography	To collate (if time permits)
Figures	Finalise drafts before having drawn-up

WG 7 Matters (cont)

19905-3

- SC7 requested WG7 consider the way forward.
- John Stiff (ABS) & leader of recent GoMex floater JIP, agreed to convene P53 to address this.
- John reviewed 19901-7 & 19904-1 and did a gap analysis wrt SSA (see Attachment 3 to N447).
- There are a few gaps and 19904-1 presently specifically excludes mobiles. There is a need to include appropriate level requirements and anchor safety factors.

WG 7 Matters (cont)

19905-3 (cont)

- John consulted with interested parties; no appetite for a stand-alone document.

- WG7's consensus view is to recommend to SC7 that 19901-7 and 19904-1 be updated to address SSA of Mobiles.

Other topics of “Interest”

- Rev 3 of SNAME still remains imminent
- During OTC (as last year!) was promised “next week”. Some of the on-going delay has been as a result of the typos, etc. that have been identified during the editing of 19905-1.
- GoMex Annex to SNAME has been approved by SNAME OC7 Panel submitted to the SNAME Offshore Committee for final acceptance and publication.

Other topics of “Interest” (cont)

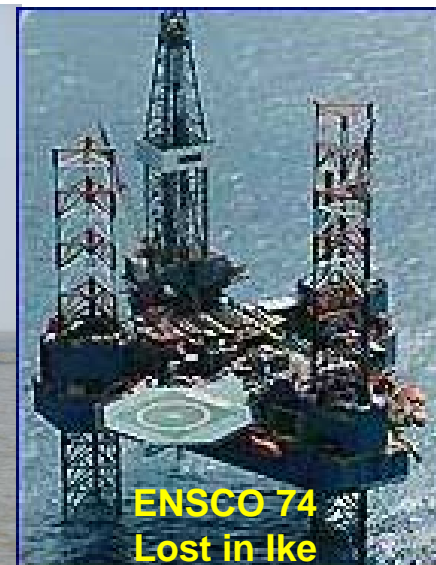


- Following Usumacinta incident, renewed interest in guidance for Mat-supported jack-ups



In Conclusion

- We will submit our DIS at the end of June.
- It may not be as complete as we would wish.
- The technology in it will provide an up-to-date, technically sound and practicable methodology for the Site Specific Assessment of jack-ups.



In Conclusion (cont)



- It is expected to permit operability similar to, or better than, that provided by SNAME.
- BUT ... the FDIS will need to await completion of (some) of the further benchmarking ... so we will need to take the ISO Extended track “slow route” from DIS to FDIS (CN 01/2005).
- We **will** need funding to support the next stage of editing. i.e DIS -> FDIS.
- To maintain momentum, we would ideally like to continue work before the comments on the DIS come in. This would be to address the items that do not get finished before the DIS is submitted.

The End

Any (more) questions ?