



World Oil[®] **HPHT**

DRILLING, COMPLETIONS & PRODUCTION CONFERENCE

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Lessons Learned by the Independent Third Party (I3P) During Review of HPHT Equipment

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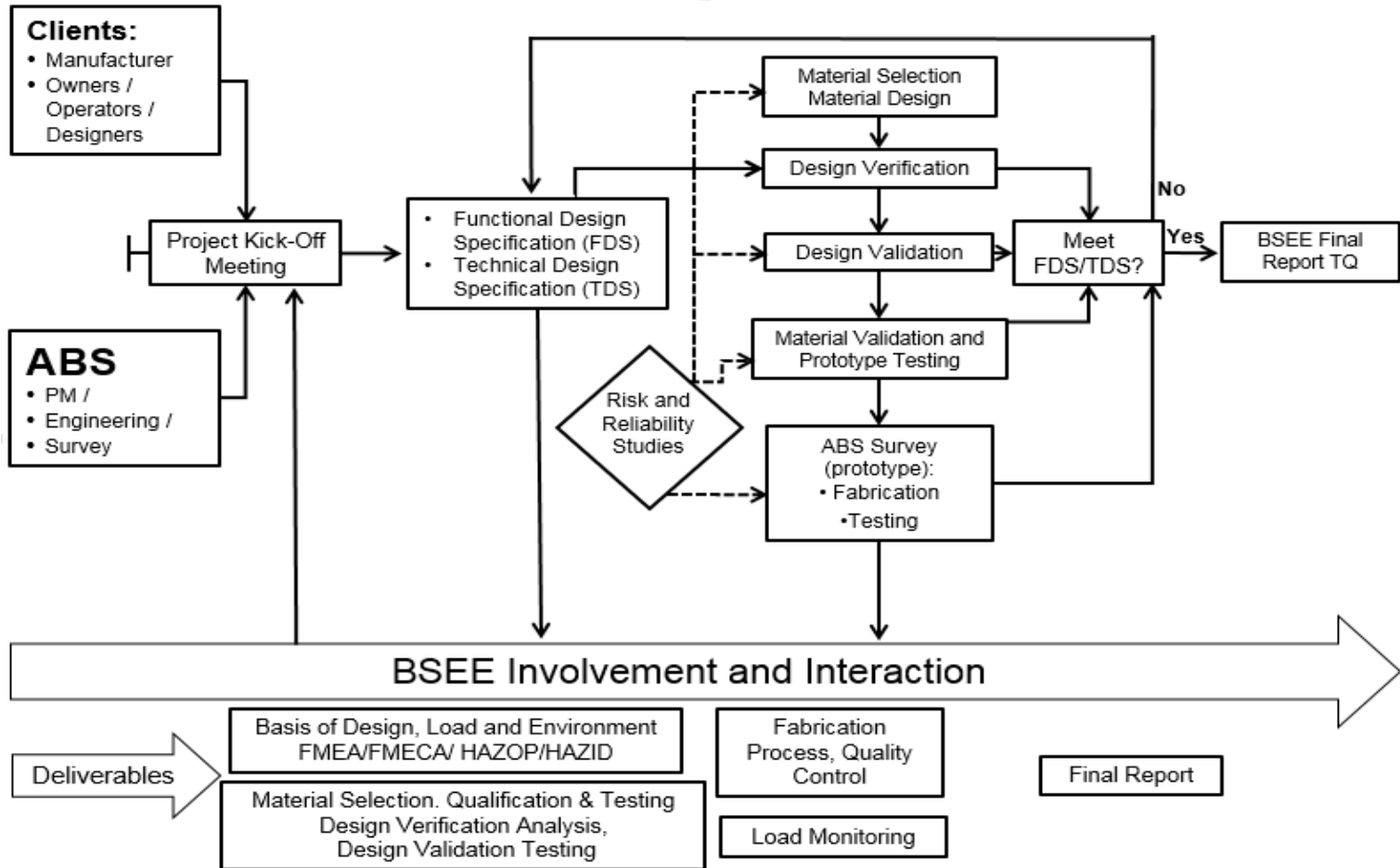
Agenda

- Scope/Background
- I3P process
- Lessons learned

Scope/Background

- BSEE requires the independent third party (I3P) review for HPHT
- OEM, Operator and all parties to work with I3P/BSEE
- lessons learned by the ABS as I3P with operator/OEM

ABS Process Flow Chart



I3P Review Steps

- Project management
- Kickoff meetings, contracts and NDAs
- Document submission from OEM/Operator/Sub-vendors
- Findings generation by I3P
- OEM/Operator/Sub-vendor response to I3P findings
- Technical meetings to resolve outstanding findings
- Closure of findings
- Issue I3P report to all involved parties to finalize the BSEE report
- Issuance I3P report to BSEE
- Final I3P report submission after incorporating changes to accommodate BSEE comments

Project Management

- Communication with OEM/Operator/Sub-vendors;
- Roles and responsibilities
- Escalation procedures
- Conflict resolution process
- Allocation of resources by I3P

Kickoff Meetings, Contracts and NDAs

- Kickoff meetings with Operator/OEMs
- Contractual/working arrangements
- Project setup
- NDAs
- Lessons learnt
 - Agreeing on communication channel is key
 - Sub vendor information and communication
 - Contract through Operator or OEM?
 - Document management
 - IP issue

Document Submission -- OEM/Operator/Sub vendor

- Document management system
- Master document register (MDR)
- Planning of document submission
- Onsite review (proprietary documentation) vs offsite review
- Content of the submitted documents
- Lessons learnt
 - Communication
 - Information availability/ Not the right information
 - Quality Assurance (document headers, revision controls)
 - Onsite review
 - Document retention

Review of Documentation by I3P

- Comments/Findings
 - philosophical/Informative/Technical/Editorial
- Information Availability
- Lessons Learnt
 - cursory review by I3P and advise submitter
 - I3P to write clear comment/finding
 - OEM/Operator to provide clear resolution
 - Technical justification/revise document/more document/testing etc.

OEM/Operator Response, Technical Meetings and Closure of Findings

- Response to findings not adequate
- Management of comments and retention
- Deviations from codes and standards
- Technical meeting participation
- Comment resolution verbiage
- Closure of findings
- Lessons learnt
 - Communication
 - OEM/Operator key SMEs should be involved in technical meetings
 - Agreement on action items and responsibilities

Deviations from Codes and Standards

- OEM/Operator/Sub vendor may sometimes need to take exemption from applicable codes/standards
- Proposal and Justification for deviation
- Acceptance and documentation of deviation by I3P
- Disclosure to BSEE in I3P report

I3P reports

- Standard I3P report structure
- Document numbering scheme, disclaimers, language/tense etc.
- Number of reports
- OEM's confidential and privileged information

I3P Reports (continued)

- Executive summary for OEM/Operator/Sub vendor document
- Content of report (too much/ too little)
- Figures for I3P report
- Draft report review by OEM/operator/Sub vendor
- Lessons learnt
 - I3P created a standard template
 - Standard template for deviations from codes/standards

Thank You