LNG TERMINAL ENGINEERING AND MAINTENANCE STANDARDS (LNGTEMS)

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Presentation Preview

- Project Background
- Project Scope
- Key Issues
- Path Forward
Project Background

• Numerous projects proposed in California
• Lempert-Keene-Seastrand Oil Spill Prevention Act gives CSLC jurisdiction
• June 2006 Project Commencement
• HPA – Prime
  – Aker Kvaerner
  – Energo Engineering
  – Fugro
  – EMI
Project Scope

4 Configurations

• Conventional Pier/Wharf
Project Scope

4 Configurations

- Conventional Pier/Wharf
- Deep Water Port
Project Scope

4 Configurations

- Conventional Pier/Wharf
- Deep Water Port
- **LNG Vessel adjacent to Existing Platform**
Project Scope

4 Configurations

• Conventional Pier/Wharf
• Deep Water Port
• LNG Vessel adjacent to Existing Platform
• Gravity Based Structure (GBS)
Not Covered

• Vessels
  – FSRUs
  – LNG Tank Vessels
  – Tugs
• Siting
Topics

• Similar to MOTEMS
  – Structural Loading, Analysis, Performance
  – Mooring and Berthing
  – Geotechnical Hazards
  – Component Structural Analysis and Design
  – Fire Prevention, Detection, Suppression
  – Piping and Pipelines
  – Mechanical / Electrical
  – Audits and Inspections

• Extra Emphasis on Hazards and Risk Analyses
Key References

- MOTEMS
- NFPA 59A
- API RP 2A
- Mexican LNG Code
- Sandia Guidance Document
- DnV
- ABS
Key Issues

• Varying Levels of CSLC Jurisdiction
Key Issues

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• Nearshore vs. Offshore Design
Key Issues

- Varying Levels of CSLC Jurisdiction
- Nearshore vs. Offshore Design
- LNG vs. Oil
Key Issues

• Varying Levels of CSLC Jurisdiction
• Nearshore vs. Offshore Design
• LNG vs. Oil
• Seismic Design Standards
Key Issues

- Varying Levels of CSLC Jurisdiction
- Nearshore vs. Offshore Design
- LNG vs. Oil
- Seismic Design Standards
- New Technologies
Path Forward

• Draft over next 12 months
• Workshop in Houston
• Workshop in California
• Keep up with proposals, EIRs, and designs