Presentation Preview

- Project Background
- Project Status
- Key Issues
- Path Forward
Project Background

- Numerous projects proposed in California
- Lempert-Keene-Seastrand Oil Spill Prevention Act gives CSLC jurisdiction
- Project Commencement – 2006
- Halcrow – Prime
  - Aker Kvaerner (LNG systems)
  - Energo Engineering (fixed platforms)
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

- Focus on LNG Specific Design Issues
- Extra Emphasis on Hazards and Risk Analyses
Key References

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

- Mechanical systems complete
- Fixed platform configuration complete
- GBS remaining
- Workshops to take place
Key Issues

- Varying Levels of CSLC Jurisdiction
Key Issues

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

- Varying Levels of CSLC Jurisdiction
- Nearshore vs. Offshore Design
- Seismic Design Standards
Key Issues

- Varying Levels of CSLC Jurisdiction
- Nearshore vs. Offshore Design

- Seismic Design Standards
  - ISO 19901-2
  - API RP 2EQ
  - 1/2500 P(f) for SSE
  - Some Europeans pushing for 10,000 year RP
Key Issues

- Varying Levels of CSLC Jurisdiction
- Nearshore vs. Offshore Design
- Seismic Design Standards
- New Technologies
Key Issues

- Varying Levels of CSLC Jurisdiction
- Nearshore vs. Offshore Design
- Seismic Design Standards
- New Technologies
- Risk Perception
LNG Risk

- Perceived by many to be comparable to nuclear power plants
LNG Risk

- Perceived by many to be comparable to nuclear power plants
- Attempting to capture “best practice”
- Need to accept that we can’t eliminate risk completely
Path Forward

- Draft within next 6 months
- Workshop in Houston
- Workshop in California
And that’s all I have to say about that ...