

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**

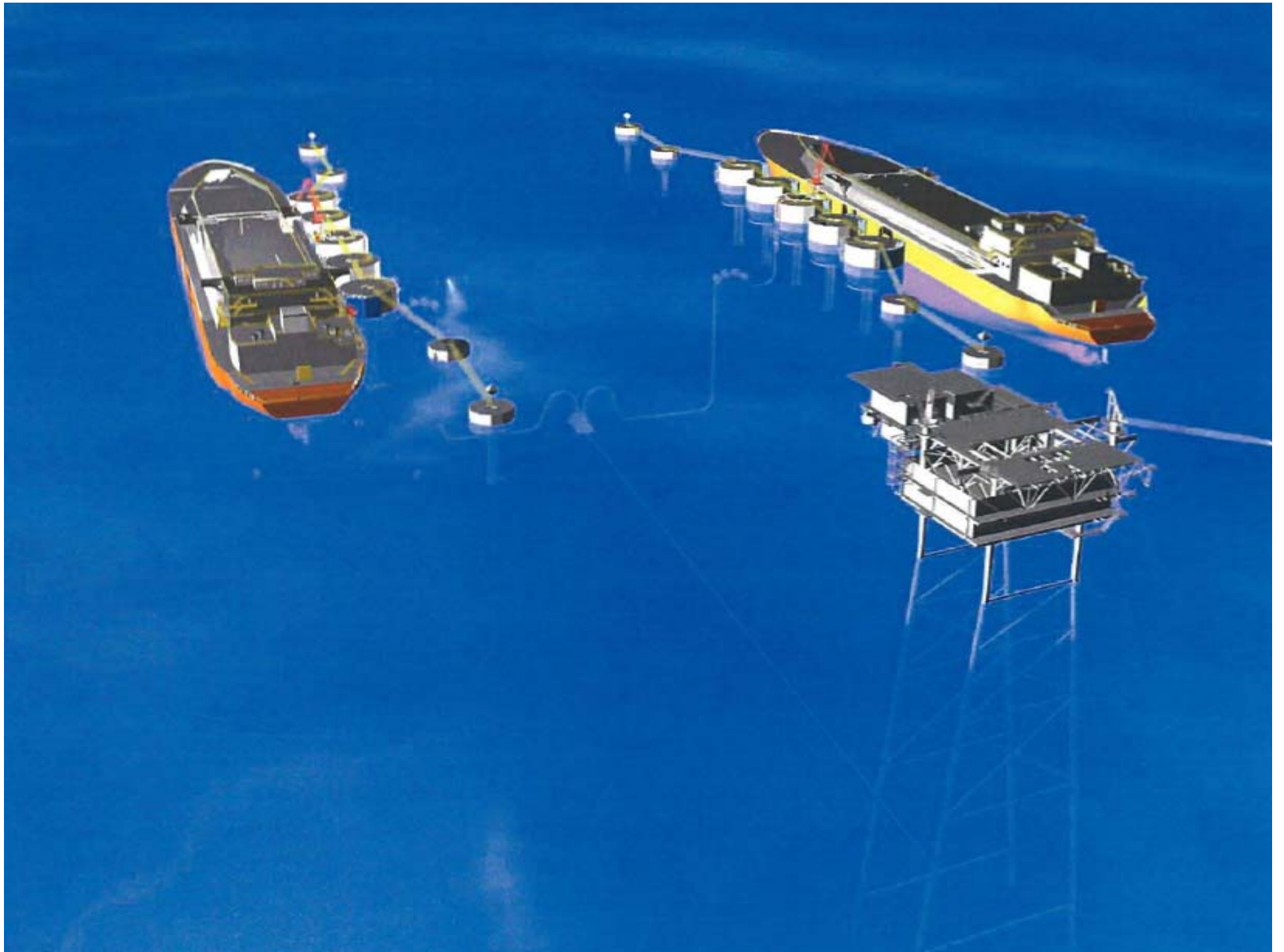




Project Scope

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

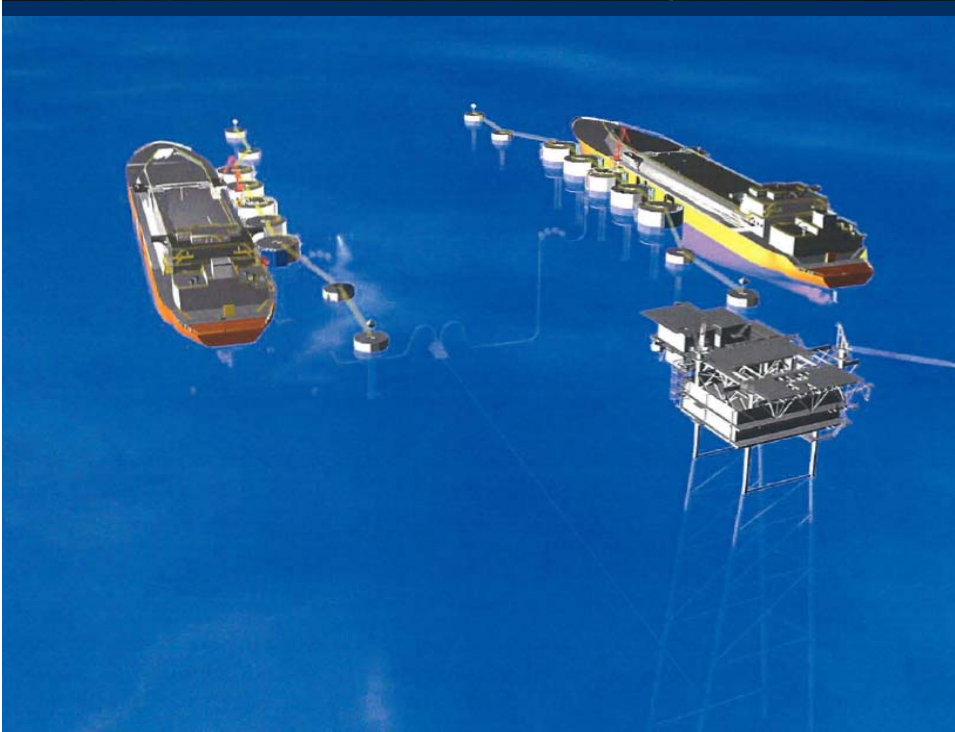
- **Similar to MOTEMS**
 - Structural Loading, Analysis, Performance
 - Mooring and Berthing
 - Geotechnical Hazards
 - Component Structural Analysis and Design
 - Fire Prevention, Detection, Suppression
 - Piping and Pipelines
 - Mechanical / Electrical
 - Audits and Inspections
- **Extra Emphasis on 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**



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- **Nearshore vs. Offshore Design**

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- 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**