Port of Los Angeles
Liquid Bulk Market
and
Marine Oil Terminal Maintenance
and Engineering Standards
Port of Los Angeles
Marine Oil Terminals

Terminal Capacity and Business Structure

• 7 marine oil terminals
• 154 million barrels per year throughput capacity
• 8.2 million barrels of storage in Port
• Berths
  • 8 panamax (-37 to -40)
  • 1 aframax (-45’)
• Tenants/Operators
  • 3 Proprietary Refiners (ExxonMobil, Phillips 66, Valero)
  • 4 Third Party Logistics (Kinder Morgan, NuStar, Shell, Vopak)
Port of Los Angeles
Marine Oil Terminals

Terminal Connectivity

- Efficient pipeline connectivity with all major refiners and third party logistics providers
- Commodity handling capability for dark and clean products
  - Crude oil
  - Fuel oil
  - Gas oil
  - Lube oil
  - Gasoline
  - Diesel
  - Jet fuel
  - Ethanol
Regional Refineries
POLA Liquid Bulk Terminals

[Map of POLA Liquid Bulk Terminals with numbered locations and specific terminal names]
Phillips 66
Mormon Island
Shell, Valero, NuStar
Vopak
ExxonMobil
Market Drivers

- Bunker Fuel – Fuel Oil
  - Market stabilization since 2013
  - Significant year over year increases since 2013
  - IMO Regulation 2020-2025
- Gasoline
- Jet Fuel
- Crude Oil
  - Shifting market sources
  - Limits on exporting domestic crude
  - Widening of Panama Canal (2016)
  - KinderMorgan Trans Mountain Pipeline Expansion (2018)
Historic Volumes

Liquid Bulk Cargo (All Types)
History 1988 - 2014
Forecast 2015 - 2042

42 Gallon Barrels

Calendar Years

Inbound
Outbound
Total Bbls
POLA Forecast (Mctems)
History

• 1919 to Present
  • Average California terminal wharf age = 50 yrs.
  • Average Port of LA terminal wharf age= 79 yrs.

• Original Terminal Design
  • Designed for 20,000 bbls. barges
  • Now accepting 200,000 to 400,000 bbls. vessels

• Coastal Oil Spills
  • Exxon Valdez (Alaska)- 1989
  • American Trader (Huntington Beach, CA)- 1990

• Concern Regarding Resiliency of Marine Oil Terminals
  • Seismic
  • Tsunami
  • Risk of spills

• Development of MOTEMS
Results and Concerns
Results and Concerns
Results and Concerns
Existing Mooring Operations
MOTEMS Compliant Mooring Operations
Berthing Operations

MOTEMS Compliant

Existing Condition
MOTEMS
(Marine Oil Terminal Engineering and Maintenance Standards)

• California State Lands Commission is the agency responsible for implementation
• Standardized Criteria for Existing Operations
  • Periodic Audit and Inspection (3 to 4 year cycle)
  • Required maintenance and upgrades
  • Operational restrictions pending redevelopment
• Long Term Compliance
  • Retrofit or rebuild new
  • Significant capital costs
MOTEMS
Program Planning

• MOTEMS Facility Plan - 2011
  • Current business needs and opportunities
  • Market projections
  • Terminal capacity and constraints
    • Wharf, Pipelines, Tankage, Pumping

• Strategic Initiatives
  • Increase utilization of existing
  • Minimize capital expenditures
MOTEMS Implementation Process

• Initial Approach – Consolidation (2012)
  • Tenant relocations and Refiner consolidation
  • Reduce total berths from 12 to 8

• Revised Approach – (2013)
  • No relocation or refiner consolidation
  • Vopak reconfiguration

• Implementation Adjustments (2013-2015)
  • Plains All American Pier 400 project cancelled (2013)
  • Vopak to remain at current location (2015)
Current Status

• Negotiations 2012 – 2015 (6 tenants)
  • 2 term sheets signed
  • 4 term sheets in negotiations

• Development 2016 - 2020

• Current Negotiation Issues
  • Market conditions and escalating project costs
  • Project scope validation
  • Schedule goal to complete all negotiations by end of 2015 - Begin EIR preparation 1Q 2016
Questions