Navigational Safety and Environmental Issues

California Department of Fish and Game
Proposed West Coast LNG Terminals and Capacity (in MMcfd)

- Humboldt Bay
  - Samoa Point Energy Center, Calpine Corp.
    - 1,000 MMcfd

- Offshore, Southern California
  - Port Penguin LNG Terminal
    - Chevron Texaco
    - (Capacity to be determined)

- Offshore, Oxnard
  - Crystal Clearwater Port
  - Crystal Energy, Small Ventures, et. al.
    - 800 MMcfd
  - Cabrillo Deepwater Port, BHP Billiton
    - 800 MMcfd

- Long Beach Harbor
  - Long Beach LNG Facility
    - Sound Energy Solutions
      - 700 MMcfd

- Offshore Tijuana, Baja California
  - Terminal GNL Mar Adentro de Baja California
    - Chevron Texaco
      - 700 MMcfd

- Ensenada, Baja California
  - Energia Costa Azul
    - Sempra & Pacific LNG Consortium/Shell Group
      - 1,000 MMcfd

California Energy Commission
February 2004
Navigational Safety Issues

- Increased vessel traffic
- Coast Guard restrictions on vessel transits
  - One way traffic
  - Safety zones
- Harbor restrictions
  - Water depth
  - Turning basins
CALPIE Energy
Humboldt Bay Project
located on Samoa Spit
CRYSTAL ENERGY PLATFORM GRACE PROJECT
Conversion of an existing offshore oil and gas platform to an offshore ship mooring, LNG re-gasification and pumping station

PLATFORM GRACE
Water 318 feet deep
10.5 miles to shore
Each facility will require 2 to 3 ship loads of LNG each week
BHP Billiton Deep water Port project
Approximately 14 miles offshore
Pipeline from mooring to shore is 21 miles long

Floating storage and regasification unit
940 feet long
Permanently moored offshore
Sound Energy Solutions
Long Beach Project