## **OIL SPILL**

In February 1990, the freighter American Trader spilled approximately 9,500 barrels of oil off Huntington Beach in southern California. In March 1989, the freighter Exxon Valdez spilled 26,000 barrels of oil in Prince William Sound in Alaska. In September 1987, the Pac Baroness left Long Beach for Japan carrying 8-9,000 barrels of bunker fuel. Approximately 14 miles west of Point Conception, the carrier collided with the Atlantic Wing, a Panamanian freighter carrying 3,451 automobiles en route to Long Beach. Estimates of the oil released as a result of the sinking ranged from 4,000 gallons to 40,000 gallons with the resulting slick covering an area 10 miles by 3 to 4 miles within 24 hours.

The potential exists for offshore oil accidents and spills to occur in Orange County due to oil and gas production, transportation of liquid bulk products by tanker, and other vessel traffic carrying petroleum products. An offshore spill can result in oil-contaminated beaches. The major potential sources of offshore spills are separated into the following categories: oil production platforms, vessel traffic along the coast, and sub sea pipelines.

Multiple agencies are involved in responding to and cleaning up oil spills. These include the Coast Guard, California Department of Fish and Game, and other state and federal agencies.

## OIL PRODUCTION PLATFORM

The probability of an oil spill from a platform is small but possible. Operating and safety requirements were substantially strengthened as a result of the Santa Barbara oil well blowout in 1969. All offshore wells are equipped with redundant blowout protectors that can be closed hydraulically from a remote control station in the event of a blowout.

Platforms have relatively small amounts of oil (a few thousand barrels) stored on them. Historically, spills from platforms only involve a few barrels. The platforms are equipped with spill response equipment to contain and cleanup any small spills. The worst case scenario is that a platform is completely destroyed (e.g., rammed by a vessel or from a significant seismic event) and the oil on the platform and in the risers running from the sea floor to the platform is released. Due to the safety equipment beneath the sea floor on the free-flowing wells, the release would not include oil from the wells themselves. The maximum release would only be a few thousand barrels.

## VESSEL TRAFFIC

Alaskan tankers may each carry as much as 1.5 million barrels of oil although the average is about 675,000 barrels. Other tankers are much smaller, carrying 100,000 to 300,000 barrels. Although the probability of a tanker spill is low, it is possible. Potential causes of spills include collision, ramming, grounding, and structural failures. Other types of commercial vessels carry fuel (bunkers), which can be released in the event of an accident.

## **SUB SEA PIPELINES**

All of the platforms ship their oil to shore via sub sea pipelines. Potential causes of pipeline spills include corrosion, mechanical defects, and ruptures caused by events such as anchor dragging or earthquakes. Additionally, sub sea pipelines are potential targets for a terrorist. These pipelines are vulnerable to explosive devices which could result in fire and damage to the environment. Oil pipelines are normally equipped with various sensors and/or valves that will allow the pipeline to be shut down rapidly and automatically in the event of a rupture.