



Sempra Energy Natural Gas Terminal

Ensenada, Baja California, Mexico, USA



Designer
SCOTT WILSON

Products
CONCENTRATE

Project Type
MARINE STRUCTURES



More than 25,000 lbs of Xypex **Concentrate** were used to protect the concrete breakwater at Sempra Energy's Energia Costa Azul LNG Receiving Terminal 14 miles north of Ensenada, Baja California, Mexico. **Xypex Crystalline Technology** was chosen because of its effectiveness in restricting chloride penetration and low maintenance requirements.

This \$875 million facility will have the capacity to import up to 1 billion cubic feet (Bcf) of natural gas per day. This is the first new LNG project on North America's west coast. The site was selected because of its deep coastal water and was developed consistent with state and local government land use planning efforts far removed from any residential areas.

A joint venture involving the Costain Group PLC of London, UK and China Harbour of China won the construction contract for the \$170 million breakwater. The breakwater, which is 1,300 meters long, was designed by Scott Wilson and integrates two different sizes of concrete caisson (46 m long and 68 m long, but both 25.5 m high and 38 m wide) weighing more than 90,000 tons each to provide protection against a 1 in 1,000 year wave (9.2 m to 17 m maximum).

