



Lake Charles simulation model screenshot

In-depth Channel Traffic Simulation

BG is planning to convert the Trunkline LNG terminal from an LNG import facility into an export facility with a target export of 15 Mt/y.

The Trunkline LNG terminal is one of 28 terminals located in the 60 nautical mile long Calcasieu channel in south-west Louisiana. The facility currently consists of four storage tanks, two vessel unloading systems, and two berths capable of handling conventional LNG vessels sized up to 170,000 m³.

Ausenco built a detailed simulation model of BG's proposed operations, which included:

- Expected third party traffic based on five years of historical data

- Channel navigational and transit rules based on vessel draft, beam, length, cargo type, and daylight
- Channel closure events based on 60 years of historical hurricane, wind, wave, and visibility data
- Inbound and outbound navigation restrictions for particular vessel types based on one year of tide and current data

The model was used to determine the impact of additional LNG vessels on congestion in the channel, evaluate the throughput capacity of Trunkline LNG terminal, and estimate the number of pilots required to handle the expected channel vessel traffic.

Project	Lake Charles Marine Simulation Study
Location	Louisiana, USA
Business line	Process Infrastructure
Client	BG LNG Services, LLC
Timeframe	2011-2012
Scope	Marine simulation study
Services	Simulation modelling