

Liquid Cargo Handling Simulator

LCCHS 5000 TechSim:
LNG Tanker Spherical



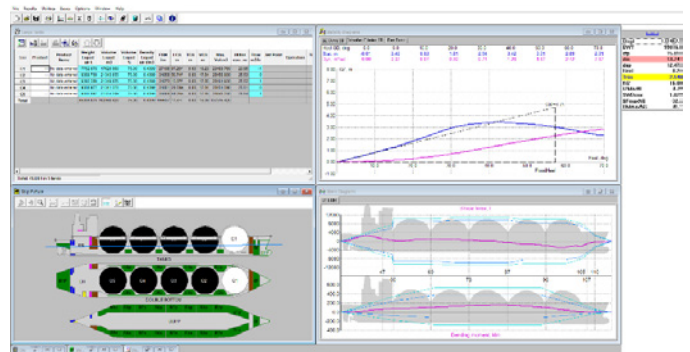
Training objectives

- Tanker arrangement, technical facilities and systems familiarization
- Cargo handling operations in standard and emergency situations
- Monitoring, Alarm and Safety systems
- Security applications and risk assessment
- Major operational and safety issues
- Refresher training
- Competence assessment



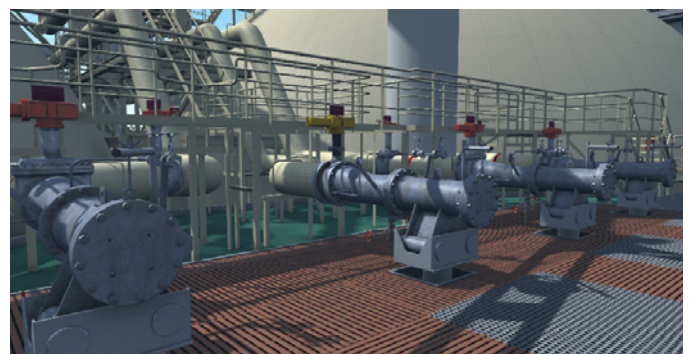
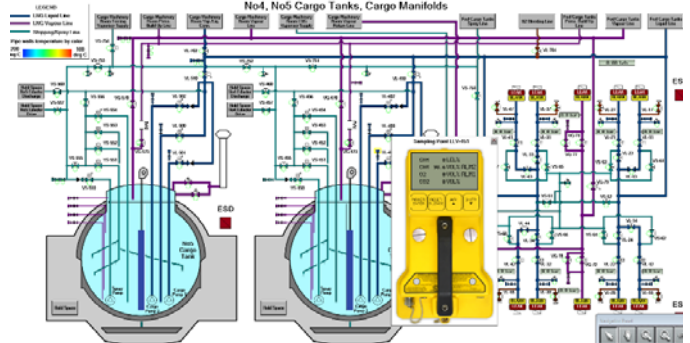
Compliance with International Standards and Regulations

Simulator holds the statement of product quality according to the NK Standard for Certification of Maritime Education and Training Simulator Systems based on the latest STCW requirements (Tables A-V/1-2-1 and A-V/1-2-2) and IMO model courses (1.36, 1.04, 1.06). Developed in accordance with DNV GL-ST-0033 standard.



Simulator components

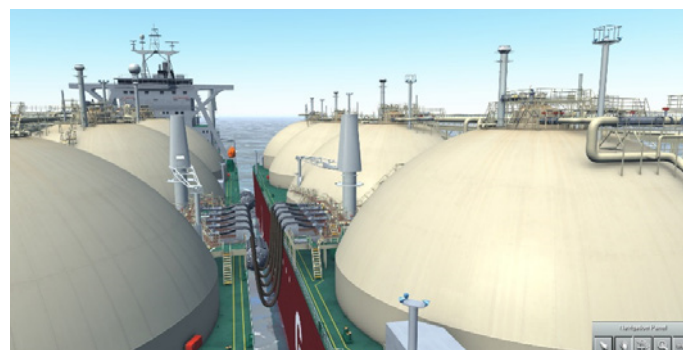
- Mimic panels and Local Operation Posts
- Interactive Piping & Instrumentation Diagrams of the systems
- Computer screens of Integrated Monitoring System and Custody Transfer System
- 3D Visualisation with direct control of the equipment, visual effects and live gauges



Joint operation

Model can run in joint operation of other LNG models of LCHS 5000 TechSim.

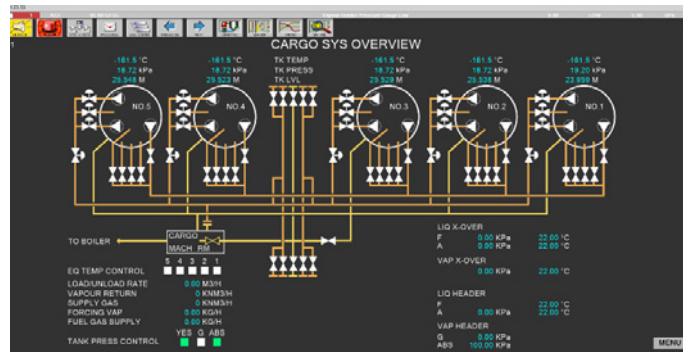
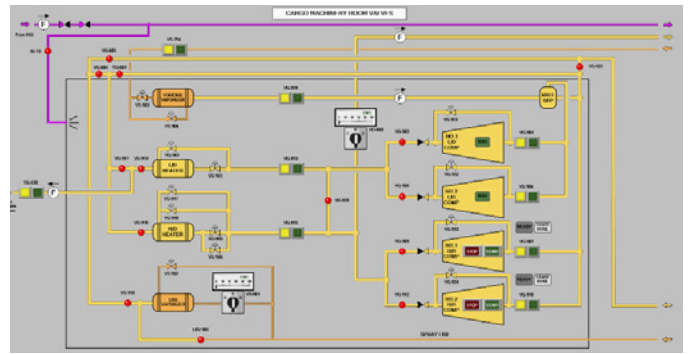
- Ship-to-Terminal (with LNG Regasification Terminal model)
- Ship-to-Ship (with LNG Tanker Spherical and LNG Tanker Membrane models)



Prototype Details

Liquefied Natural Gas (LNG) Carrier with spherical (Moss) type tanks (-163 °C, 500 kg/m³, 0.25 bar).

Displacement	104 999 tons
Deadweight	71 753 tons
Length, overall	293.0 m
Breadth, molded	45.75 m
Design draught	10.95 m
Cargo tanks capacity	135 477 m ³
Ballast tanks capacity	62 617 m ³



Simulated Systems

- Cargo System
- Cargo Machinery Room
- Ballast System
- Ballast Water Treatment System
- Inert Gas & Dry Air System
- Nitrogen Generation System
- Sea Water Fire Fighting System
- Water Spray System
- Dry Powder System
- Gas Detection System
- Ventilation System
- Emergency Shutdown System
- Alarm System
- Loading Control System

Ballast Water Treatment System

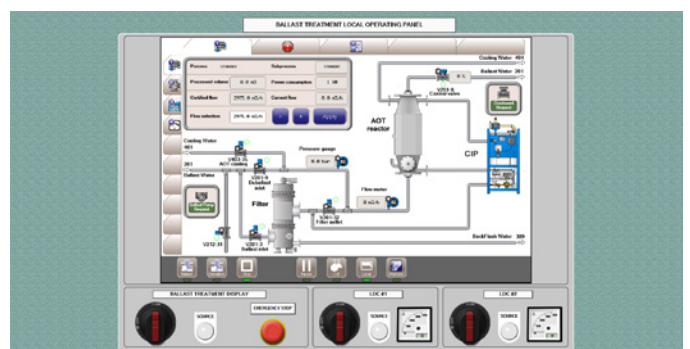
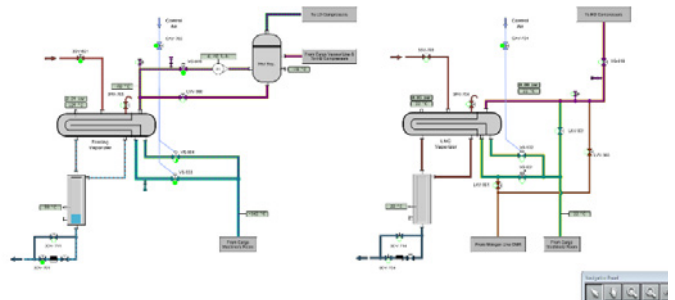
Model includes a replica of a Ballast Water Treatment System, following the enforcement of the International Convention for the Control and Management of Ship's Ballast Water and Sediments (BWM Convention).

3D Tour

3D visualisation walkthrough feature with First Person View. Avatar can be controlled manually (like in video games), or automatically (find ways according to a map). Visible locations:

- Cargo deck, cargo tank domes, flying passage, manifolds area
- Cargo control room
- Cargo machinery room
- Cargo motor room

LNG and Forcing Vaporizers



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