EcoRel

Economic  Reliable  Ecologically friendly
Shipboard Reliquefaction Plant for LNG Carriers

Key advantages of the EcoRel LNG Reliquefaction System:

★ Space-saving, compact arrangement.
Nitrogen Recycle Compressors and the Expander/Booster Compressor combined into one machine ("Compander") with a common lube oil system, installed in the safe area.

★ Economic operation assured
No methane/energy loss by venting or gas burning.

★ Most ecologically friendly ship operation
Total reliquefaction - no methane-contaminated waste gas burned or vented.

★ Increased process reliability and performance
Redundancy of rotating equipment and fall-back provisions assure reliable, high performance and safe re-liquefaction.

★ Safe operation and simple class approval
Simple concept and good protection of critical heat exchanger is assured.

★ Outstanding experience ....
Two thirds of the existing LNG Carrier fleet have our Cargo Handling equipment on board.
Main characteristics of the EcoRel LNG Reliquefaction System:

- Cryogenic refrigeration process based on Brayton cycle using nitrogen as inexpensive and safe cooling medium.

- Refrigeration machinery skid located in the safe motor room, including 3-stage nitrogen compressor and single-stage expansion turbine on one gearbox, with cooler rack and counter-current heat exchanger.

- BOG condenser located in cargo machinery room.

- Two stage boil-off compressor in cargo machinery room with proven bulkhead seal. Drive motors are located in the motor room.

- Process connection to refrigeration skid in motor room by only two cold pipes through bulkhead.

Subject to changes due to progress. International patents pending. © Cryostar S.A.S.