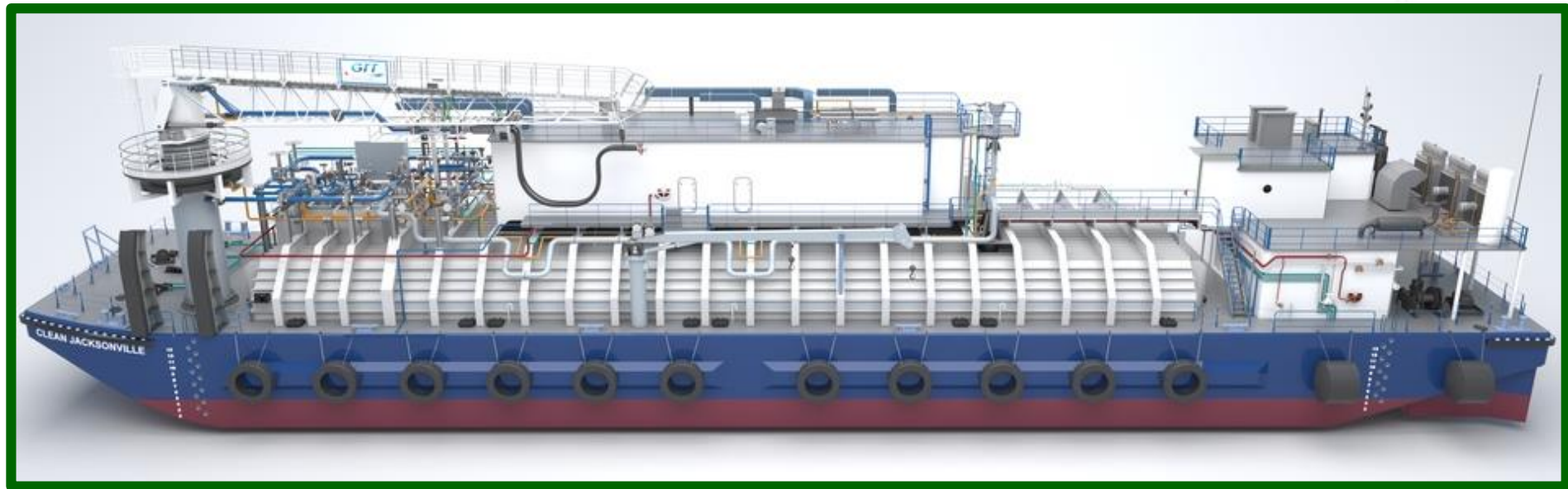


CLEAN JACKSONVILLE



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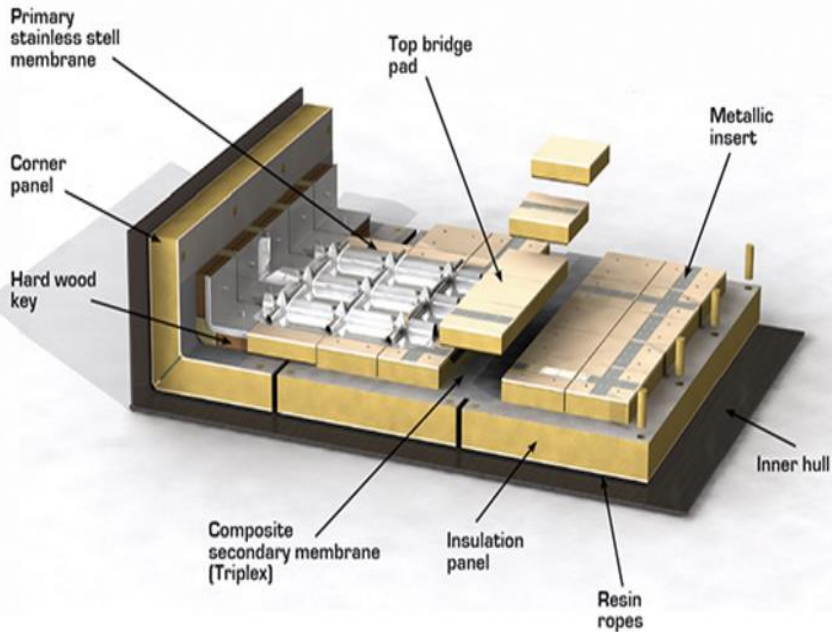


CLEAN JACKSONVILLE - General Construction



GTT Mark III Membrane Containment System

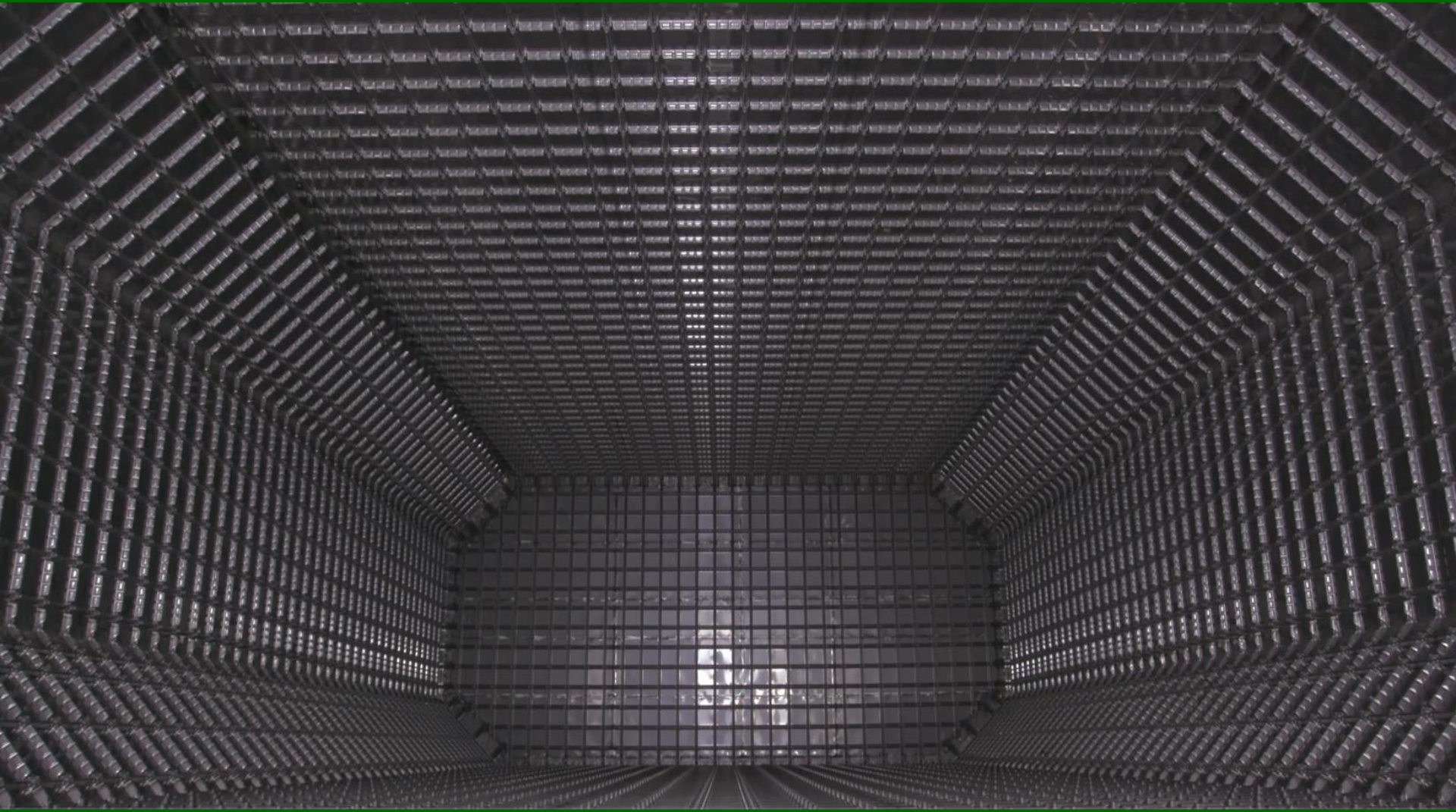
Mark III



- Stainless Steel Corrugated Plating
- Inter-Barrier and Insulation Spaces
- Composite Secondary Containment Membrane
- Positive Pressure of Inter-Barrier Insulation for Vapor leak containment



GTT Mark III Membrane Containment System



Tank Protection Relief Valves

- Two Fully Redundant PRVs set for 700mbar
- Independent Safety Line to Vent Mast set by operator

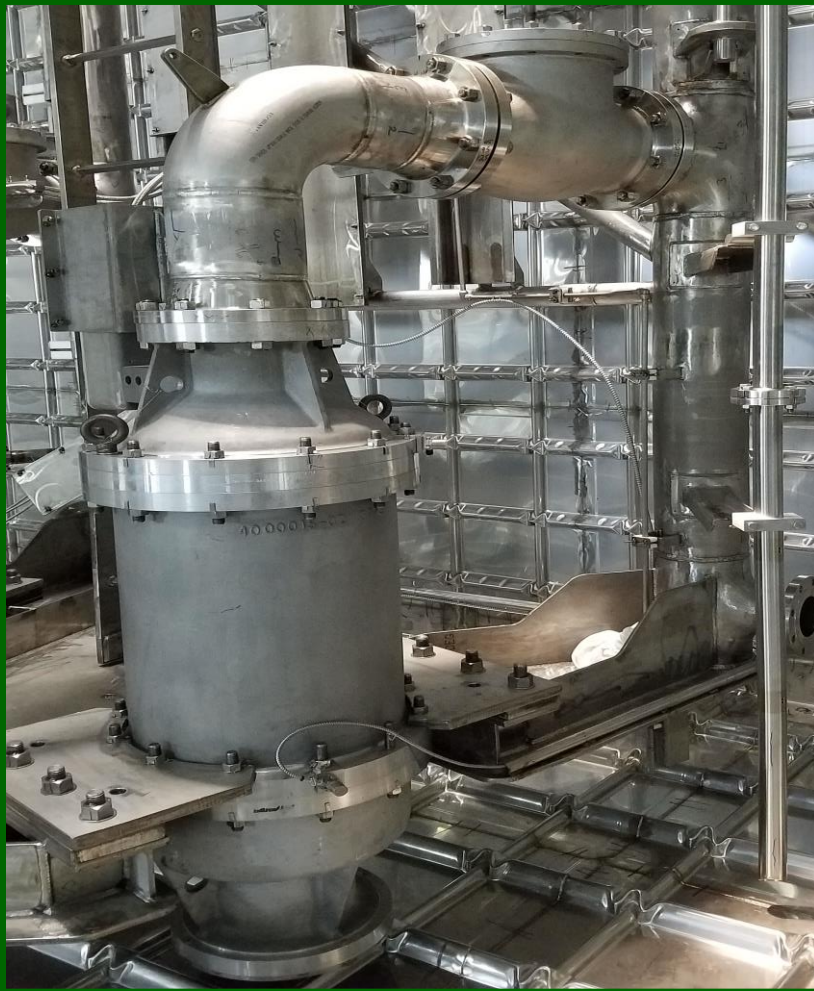


Combined Dome - Cargo Handling

- Combined Vapor and Liquid Dome
- Loading and Bunkering piping are common at the Cargo Dome
- Spray and Stripping lines able to facilitate stripping, spray rail utilization, gassing up and cool down operations.



Cargo Pumps



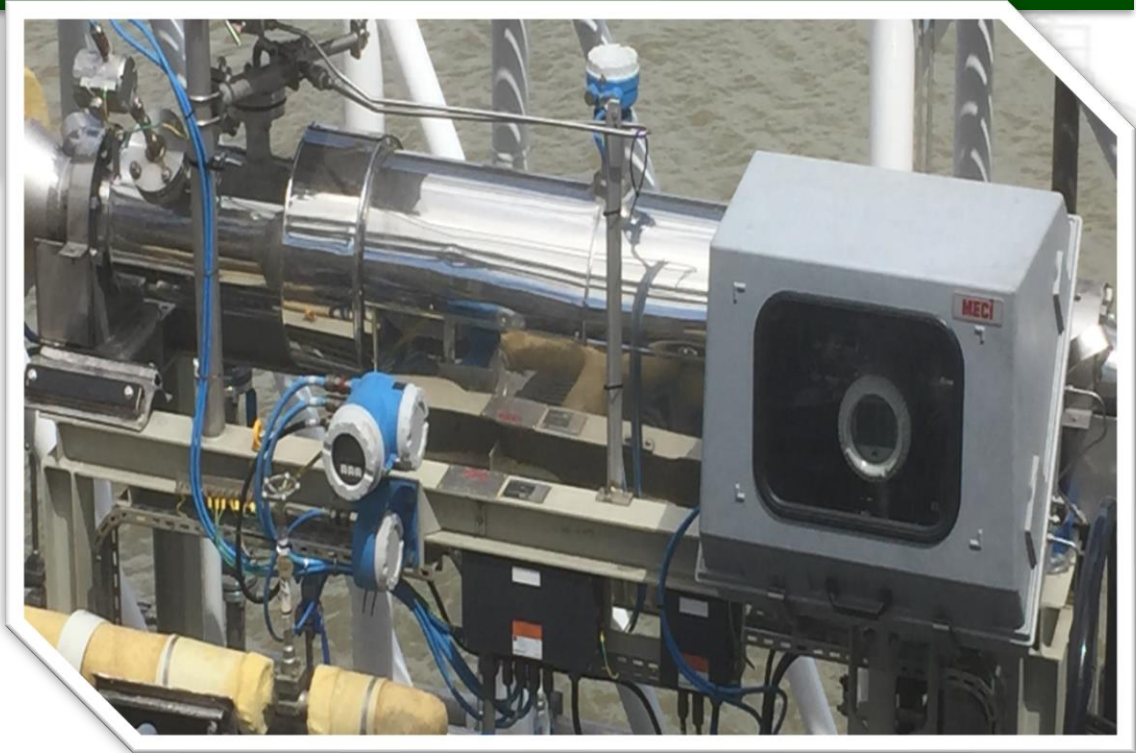
- Two (2) Primary Cargo Pumps
 - Ebara Model 8EC-12,
 - Rated Capacity of 500 m³/hr, 262 HP, 3840 RPM
 - Single Stage, VFD Controlled: 40 Hz – 64 Hz
 - Minimum Starting Level: 1.25 M
- One (1) Stripping/Spray Pump
 - Ebara Model 1EC-063
 - Rated Capacity of 8 m³/hr, 5.5HP, 3600 RPM
 - 3 Stage, Fixed Frequency Control
 - Minimum Starting Level: 0.39 M

Custody Transfer Management System



- Coriolis Mass Flow Meter Technology
- Calculates Resonance signal produced of LNG moving through internal measurement piping

- Gas Chromatograph measures composition of LNG Product
- Continuous sampling- Analyzed by Helium carrier gas



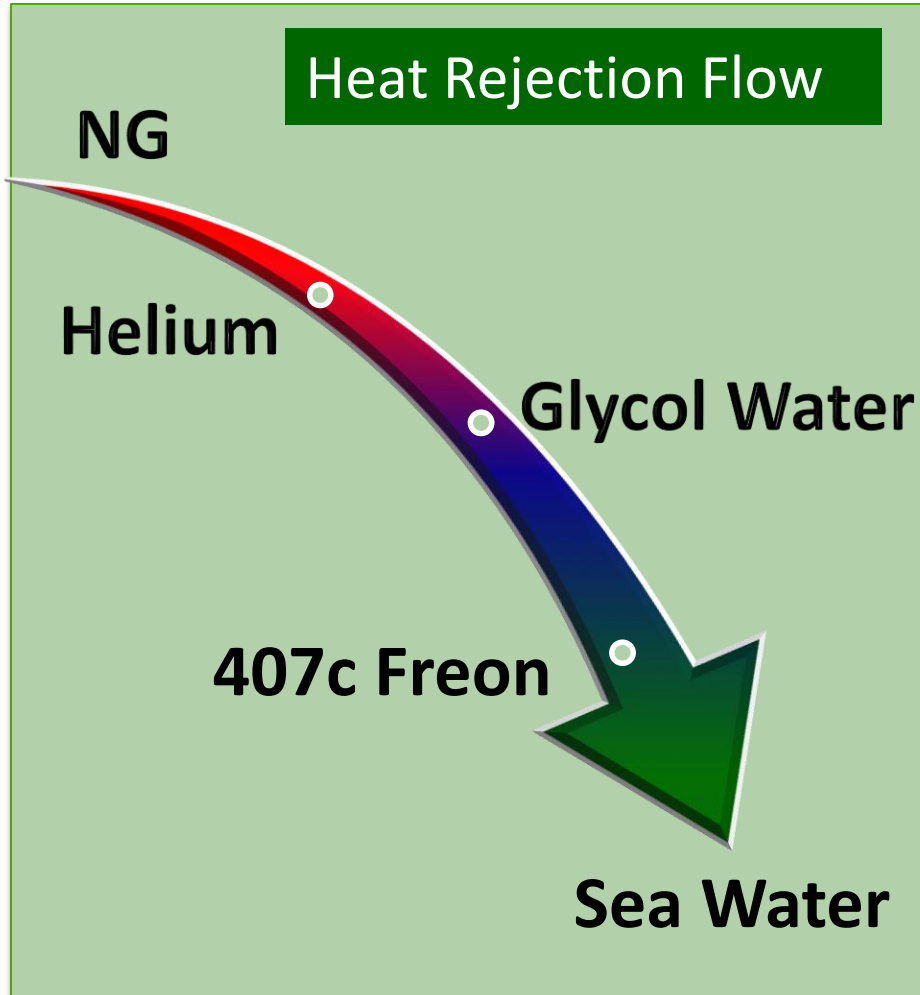
Reliquafaction System

- Six (6) Stirling Cryocoolers
- Condenses Boil off Gas and Vapor from Marlin Ship
- Exceeds 125% BOG Management IGC Code requirements

- Electronically Driven
- Independent VFDs
- Wet Bulkhead Seal pressed with Nitrogen



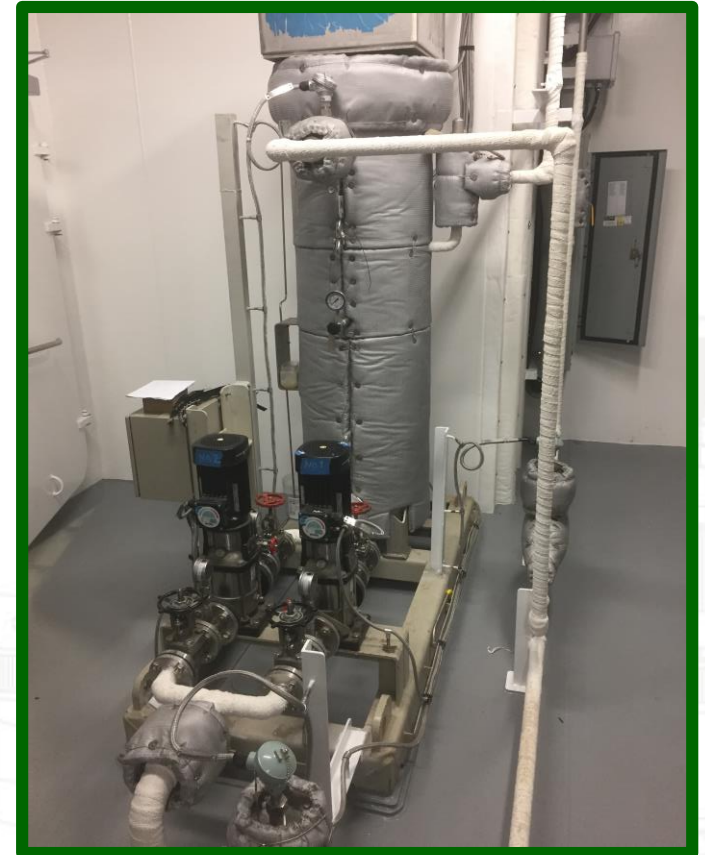
Cascade Cooling System



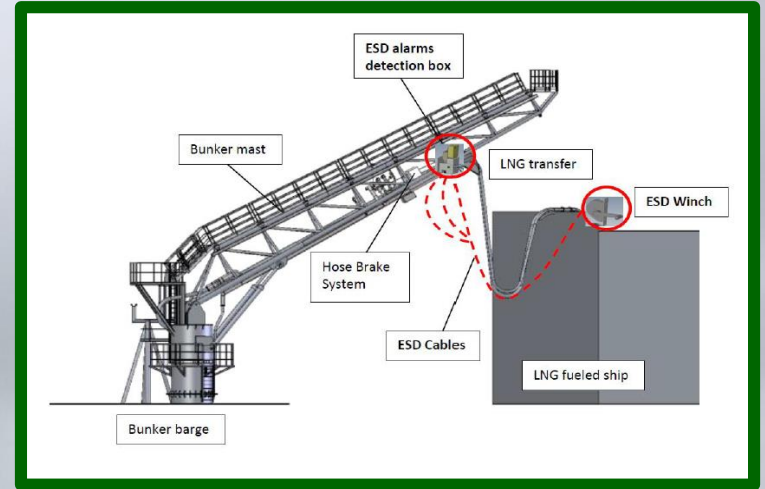
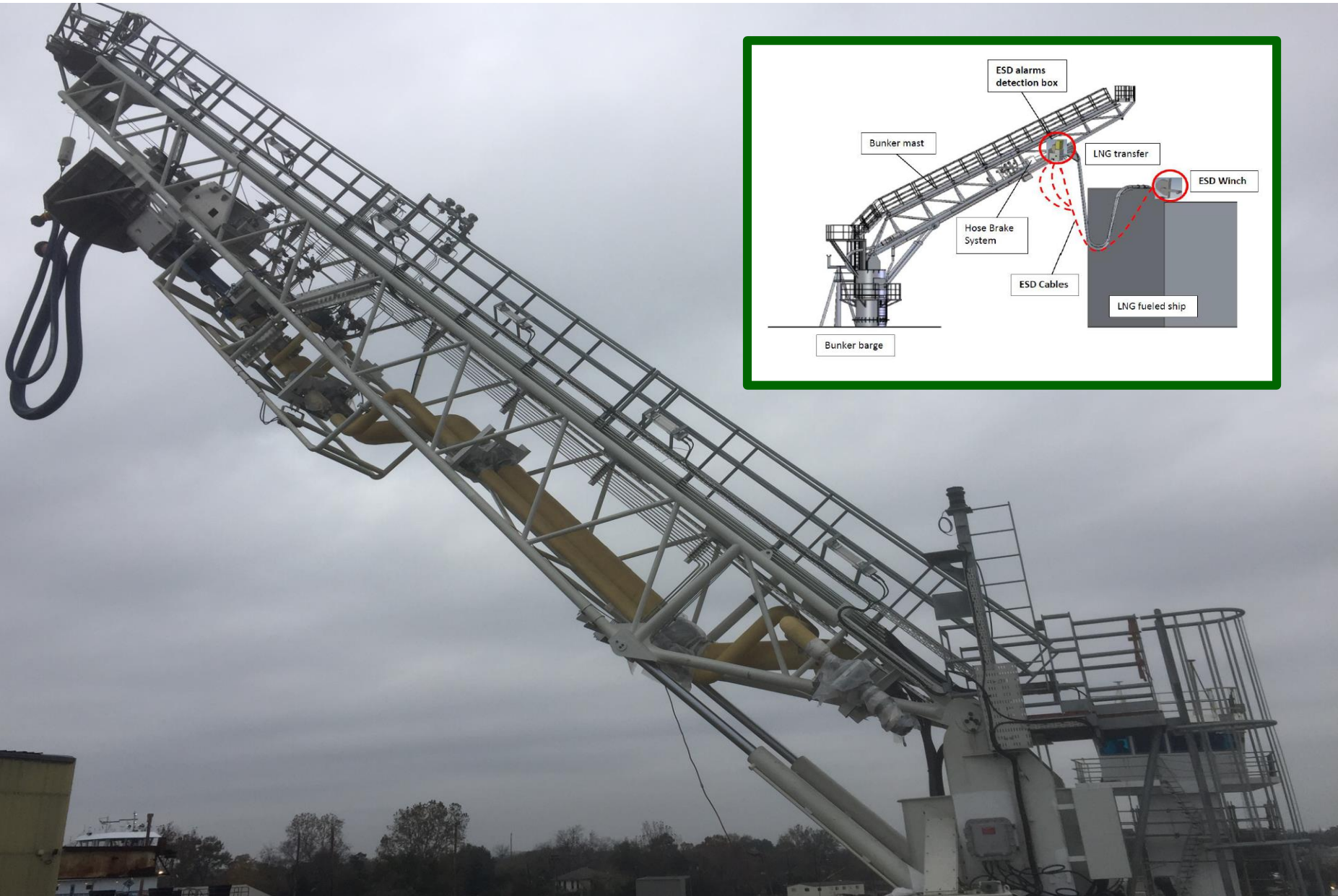
Vaporizer and Glycol Water Heater



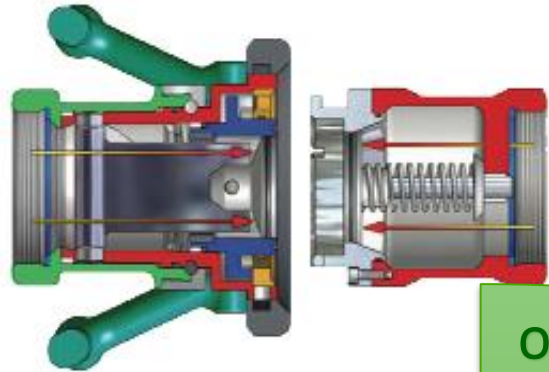
- DongHwa Vaporizer and Glycol Heater System
 - Primarily used if Ship cannot provide Vapor Return
 - Secondary Use: Gassing Up
 - Capable 90 C glycol water



The Clean Jacksonville Bunker Mast:

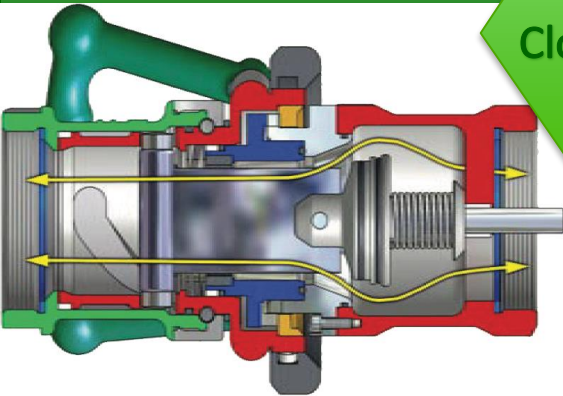


Bunker Mast Connection



- Liquid: 8" Hose reduced to 6" QC/DC
- Vapor: 4" Hose & QC/DC

Open

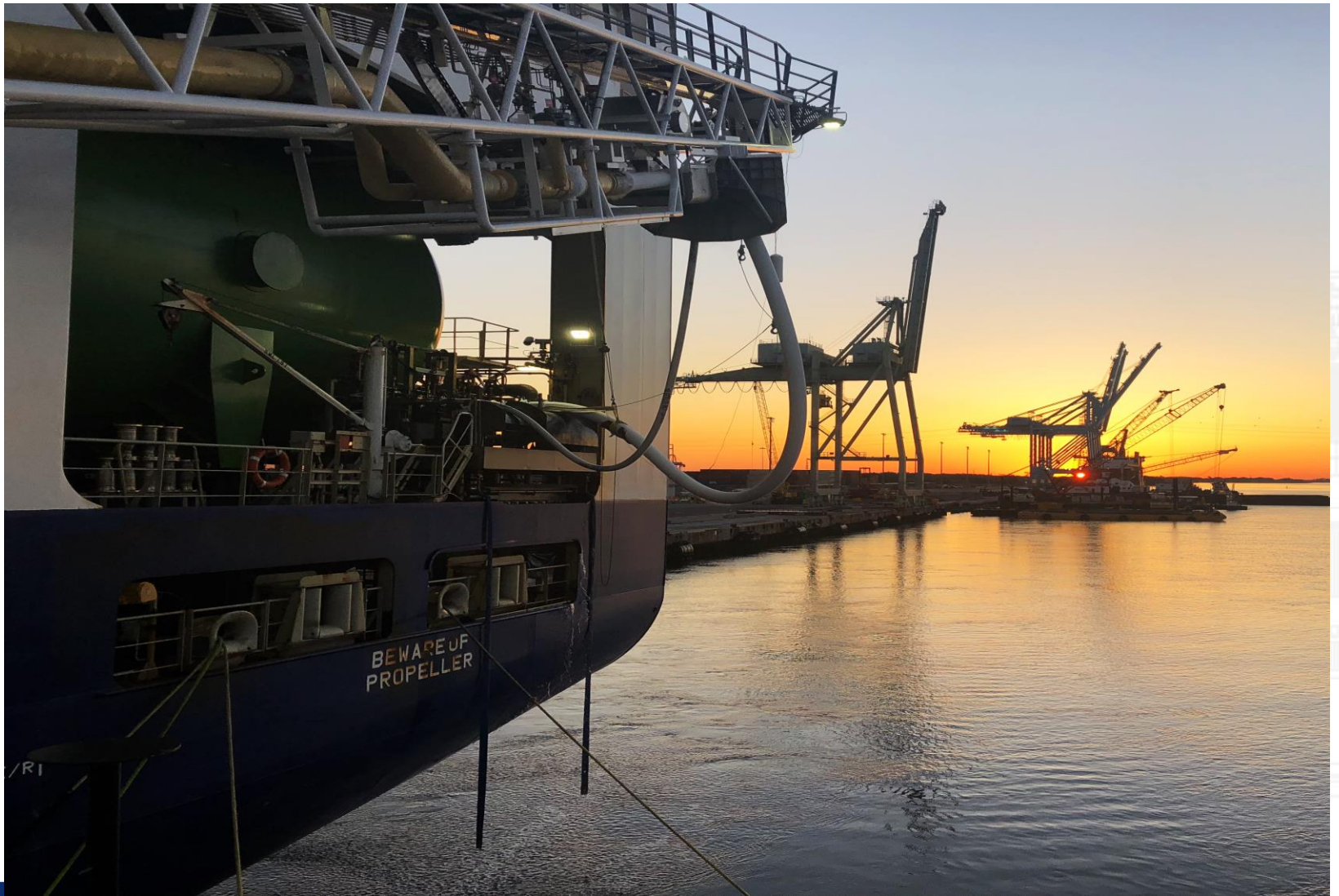


Closed

- Quick Connecting
- No Intereriting Required



Bunker Mast Connection

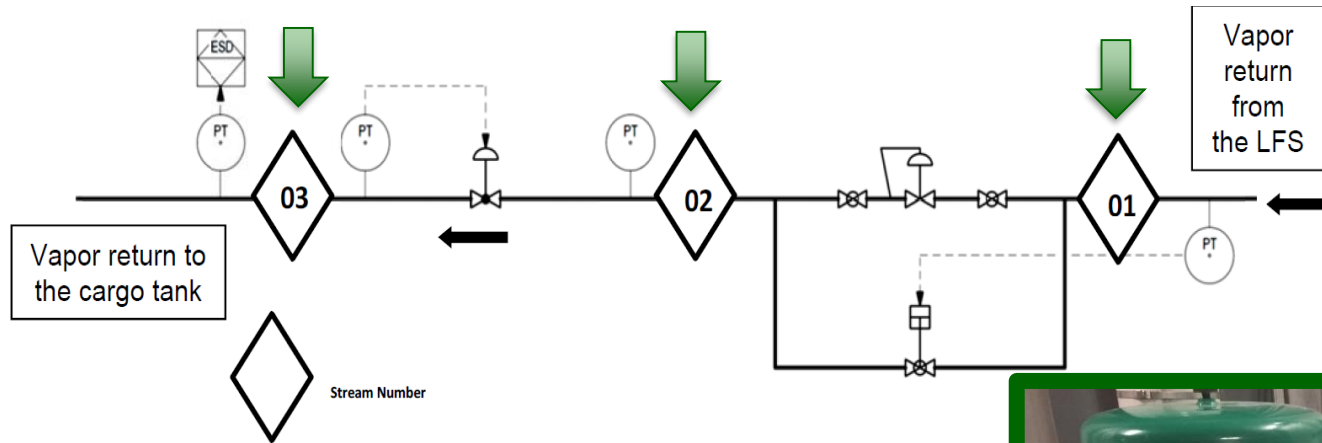


Deck Machinery



- Deck Machinery on the Barge
 - 4 Lantec 200 Series Mooring Winches
 - 1 Lantec 750 Series Mooring Winch
 - 1 Tech Crane Loading Crane
 - 1 Coastal Anchor Winch
 - 1 Pull Master M25 Bridle Winch

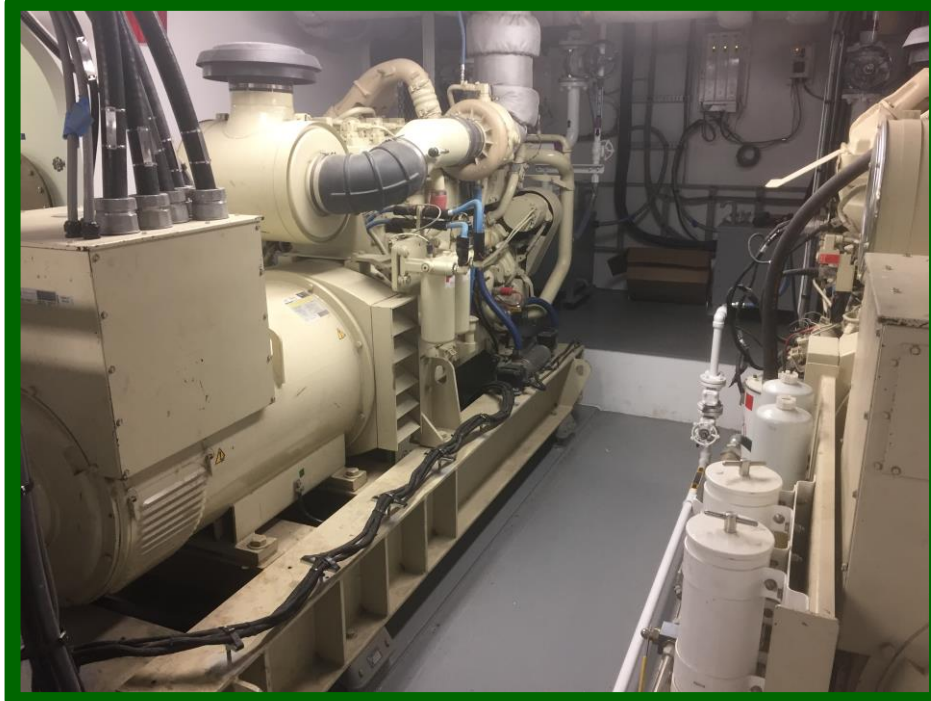
Pressure Reducing Station



- Pressure Reducing Station
 - One pneumatic inline direct acting and one PID controlled valve with DVC
 - Steps Client C-Tank vapor return from a maximum 10 bar down to Operator desired setpoint.
 - Bypass valve allows for vapor return from a Client Membrane Tank



Electrical System



Generators

- Cummins QSK19-DM 515 kW
 - Two in Lower Machinery Space
 - One in Standby Generator Room

Power Management System

- Complete Automatic Control with preferential trip settings.
- Capable of receiving power from Tug for Limited Operations



Nitrogen System

- Two Nitrogen Generators
 - Generon Membrane Type
 - Rated Capacity
 - 38Nm³/hr each
 - 10barg, 97% N₂ purity

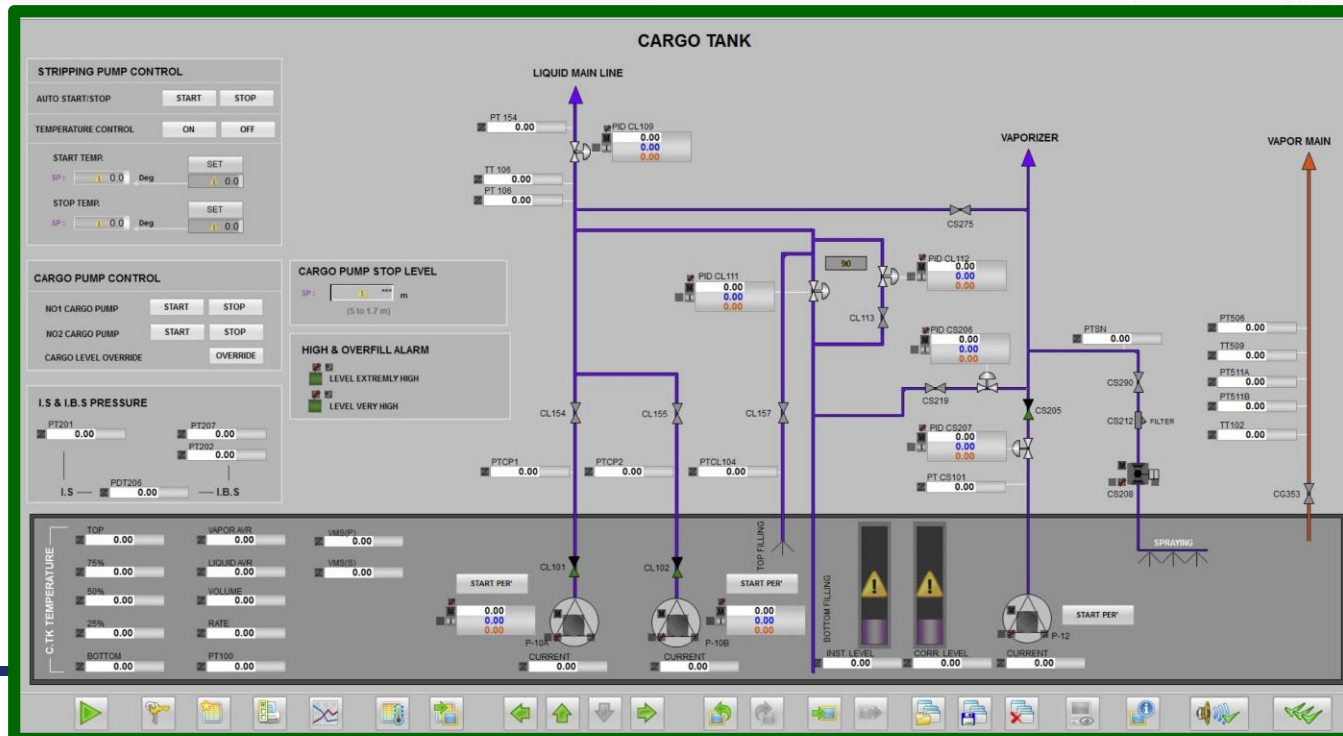


- Two Feed Air Compressors
 - TMC Rotary Screw
 - Supplies:
 - Air to N₂ Generators, Gas Sampling, Fuel Shut Off Valves, Sea Chest Blow Down
 - Desiccant Air Dryer located between compressors and Nitrogen Generator



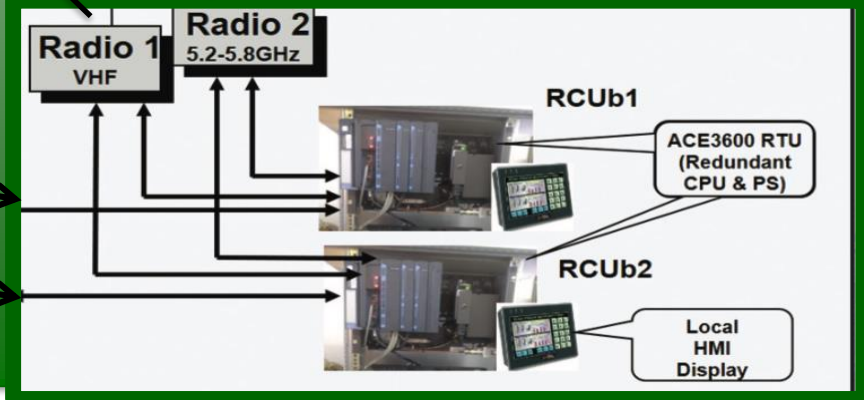
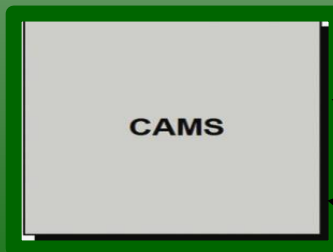
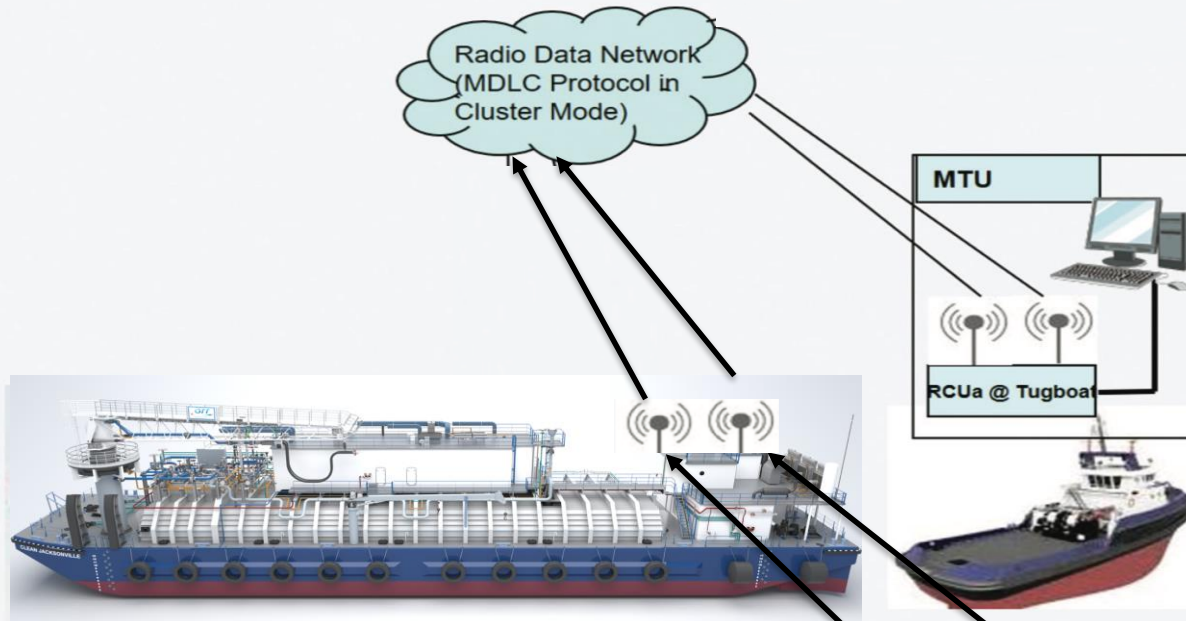
Siemens CAMS Automation

- Controlled Stations:
 - Barge Equipment Monitored from CCR or Tug
- Cargo Management
- Power Management
- Load Shedding
- Emergency Response



Telemetry Overview

MTU – Master Telemetry Unit
RCUa – Radio Communications Unit @ the Tugboat
RCUb – Radio Communications Unit @ the Barge
PU – Portable Unit (Optional)



Fire and Safety Equipment



Fixed Gas Detection
Flame/Heat/Smoke Detection
Fixed CO2 Protected Spaces
ESD System / TPS
Fire Pumps
Water Curtain / Water Spray
Nitrogen Smothering
Fixed Powder (350lbs) w/100ft Hose
Emergency Anchor



Thank You



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