



Client: Avenir LNG

Project Title: SOE Stolt 20,000-cbm LNGC at APLNG Jetty, Gladstone Port

Completion: December 2020

Location: Queensland, Australia

Services: Ship-Shore Compatibility Checks

As part of Ship-Shore Compatibility (SSC) checks, the Client engaged Paaras Marine Solutions to perform the following tasks:

- Static mooring analysis for SOE Stolt 20,000-cbm LNG carrier at APLNG Jetty in Gladstone Port, Queensland, Australia.
- Compatibility checks of the connection between the shore loading arms and the vessel's manifolds.
- Compatibility checks of the placement of the shore gangway on the vessel.

Objectives of the Static Mooring Analysis were to:

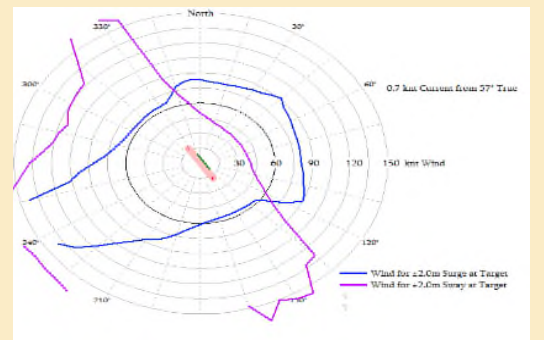
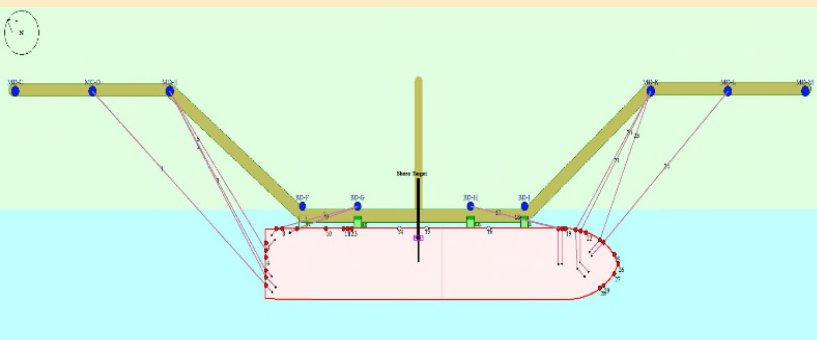
- Determine mooring line tensions under OCIMF standard environmental criteria.
- Determine vessel movements for the proposed mooring arrangements.
- Ensure that mooring line tensions and vessel movements are within the limits specified in OCIMF Mooring Equipment Guidelines Fourth Edition (MEG4).

Objectives of the Gangway Compatibility Checks were to:

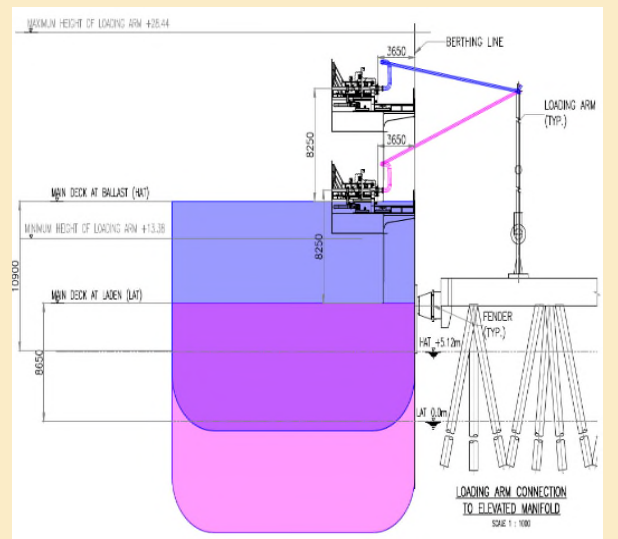
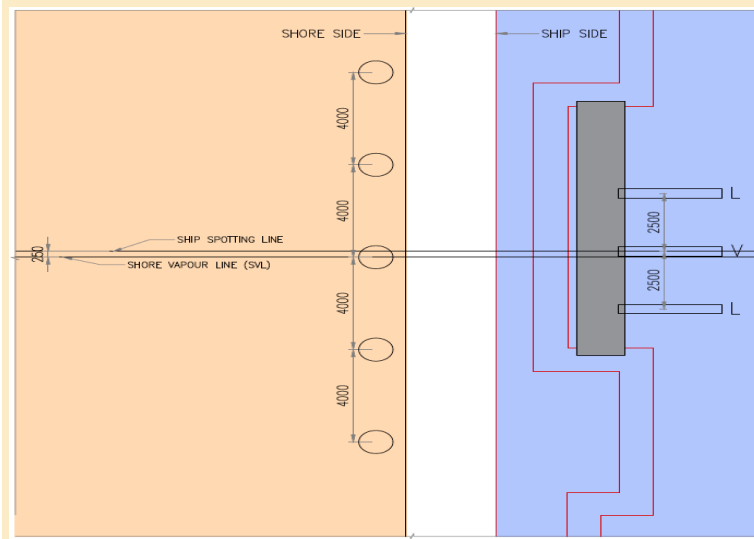
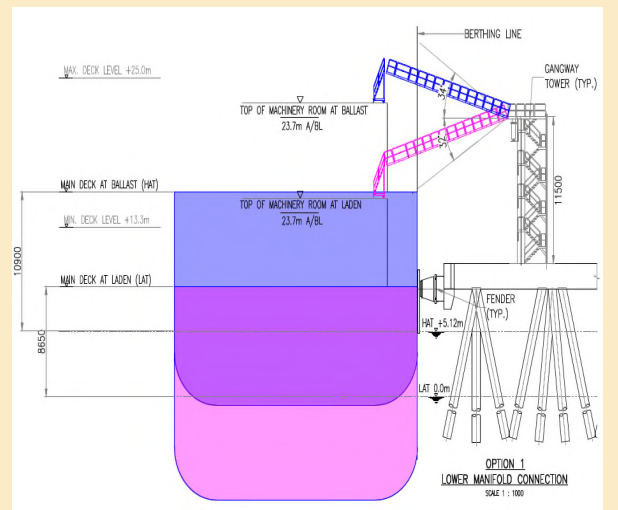
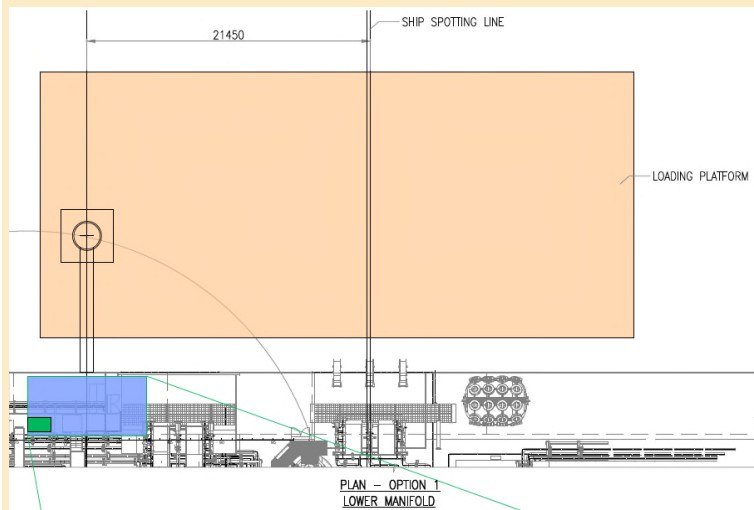
- Determine whether the shore gangway can be placed onboard the vessel.
- Identify the optimal location for placement of the gangway.
- Identify any constraints (mainly related to vessel movements) in placement of the gangway onboard the vessel.

Objectives of the Loading Arm Compatibility Checks were to:

- Determine if the shore loading arms can be connected to the vessel's manifolds.
- Identify any constraints (mainly related to vessel movements) in connecting the shore loading arms.



PROJECT DATA SHEET



PROJECT DATA SHEET



Client: Avenir LNG

Project Title: 7,500-cbm LNG Carrier *Avenir Advantage* at FSU Berth, Regasification Terminal Sungai Udang

Completion: November 2020

Location: Melaka, Malaysia

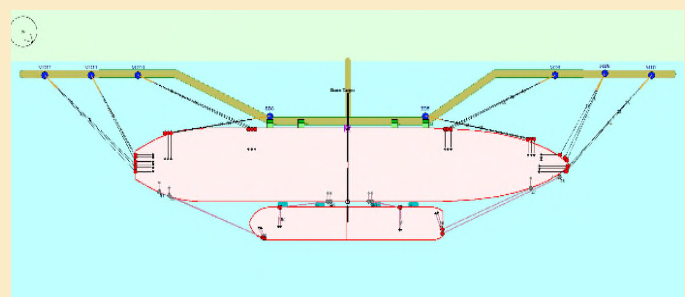
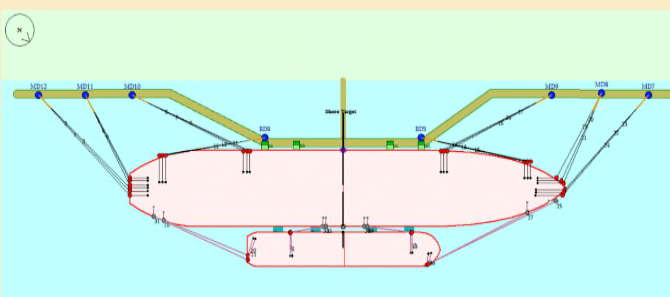
Services: Mooring Analysis

Avenir LNG plans to use its 7,500-cbm LNG carrier, *Avenir Advantage*, to load LNG from Regasification Terminal Sungai Udang in Melaka, Malaysia. The purpose of the plan is to bunker LNG-fuelled vessels and deliver LNG to small-scale LNG projects in the region.

In preparing to carry out this plan, Avenir LNG engaged Paaras Marine Solutions to perform static mooring analysis for *Avenir Advantage* double-banked side-by-side with floating storage unit FSU1-Tenaga Satu. The analysis forms part of Ship-Shore Compatibility (SSC) checks.

The static mooring analysis was performed using OPTIMOOR software, under standard environmental criteria as defined in OCIMF Mooring Equipment Guidelines Fourth Edition (MEG4). The objectives of the analysis were to:

- Determine mooring line tensions under OCIMF standard environmental criteria.
- Determine vessel movements for the proposed mooring arrangements.
- Ensure that mooring line tensions and vessel movements are within the limits specified in MEG4.



PROJECT DATA SHEET



Client: Avenir LNG

Project Title: 7,500-cbm LNG Carrier *Avenir Advantage* at Berth 6204, Regasification Terminal Pengerang

Completion: November 2020

Location: Johor, Malaysia

Services: Mooring Analysis

Avenir LNG plans to use its 7,500-cbm LNG carrier, *Avenir Advantage*, to load LNG from Regasification Terminal Pengerang in Johor, Malaysia. The purpose of the plan is to bunker LNG-fuelled vessels and deliver LNG to small-scale LNG projects in the region.

In preparing to carry out this plan, Avenir LNG engaged Paaras Marine Solutions to perform static mooring analysis for *Avenir Advantage* alongside Berth 6204 at the terminal. The analysis forms part of Ship-Shore Compatibility (SSC) checks.

The static mooring analysis was performed using OPTIMOOR software, under standard environmental criteria as defined in OCIMF Mooring Equipment Guidelines Fourth Edition (MEG4). The objectives of the analysis were to:

- Determine mooring line tensions under OCIMF standard environmental criteria.
- Determine vessel movements for the proposed mooring arrangements.
- Ensure that mooring line tensions and vessel movements are within the limits specified in MEG4.
- Determine limiting wind speeds for safe mooring of the vessel at the terminal.

