



Gladstone Ports Corporation

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*Transport Infrastructure Act 1994
Gladstone Ports Corporation*

Port Notice 04/17 LNG Vessel Operating Parameters

1. These operating parameters have been developed based on navigation simulations with LNG vessels up to 220,000 m³ with laden drafts up to 12.20m and arrival drafts to 11.00m. Maximum length over all (LOA) 315m x 55m beam.
2. No passing shall take place between LNG vessels and other vessels carrying dangerous goods.
3. No passing shall take place between an LNG vessel and a deep draft vessel during the transit of any channel area.
4. When Port capacity dictates, the passing of LNG vessels may be permitted under strict guidelines to be formalised in the Port Procedure Manual, providing the LNG vessel is using two tethered escort tugs. This manoeuvre if scheduled will be pre-approved by the Regional Harbour Master (RHM).
5. Separation between LNG vessels and other non-LNG vessels in the channels will be as per existing Port procedures. (i.e. 1 hour for “Cape” class vessels and 30 minutes for “Panamax” and other vessels and shall be maintained throughout the transit. For the purposes of assessing the follow-on time for LNG vessels to a preceding vessel, LNG vessels shall be classified similar to “Panamax Class” in that the draft of the vessel and the escort tug assistance allows for the option of safely aborting the transit at a number of alternative locations.
6. LNG vessels may arrive and depart on all states of the tide. Preference will be given to arrival on ebb tide (with slack water at the berth) and depart on flood tides.
7. For normal operations a minimum Under Keel Clearance (UKC) of 1.2m shall be retained throughout vessel arrivals and departures. A UKC of 1.2m is the minimum deemed satisfactory for swinging on arrival and departure for LNG vessels with drafts up to 12.00m.
8. LNG vessels to have Electronic Chart Display and Information System, (ECDIS).
9. Whether the LNG vessel is swung to port or starboard is at the discretion of the ship’s Pilot and Master. Preference is to swing stern to the wharf.
10. LNG vessels will transit all channels and cuttings with tug escorts (2 x 80t bollard pull fully fitted for escort) at speeds up to about 10 knots with tugs made fast. Although the decision as to where to make the tugs fast will be made after consultation between the Pilots and the Master, it is recommended that both escort tugs should be attached on the stern (tandem deployment) for inbound and outbound transits of the Port.



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11. If weather conditions deteriorate in the South Channel, where wave exposure is higher (wave conditions greater than Hs 1.5 to 2.0m) such that there is a concern over the safety of tugs in a tandem deployment, a single escort tug attached to the transom may be deployed with the second tug in passive escort mode. One or more of the following practices shall also be adopted:
 - the speed through the water is reduced to 8 knots or less in the outer channel transit;
OR
 - the planned transit of the outer channels will be undertaken on a stemming tide;
OR
 - the LNG vessel waits until weather conditions improve.
12. LNG vessels will not be handled in weather conditions that make operations hazardous (typically wind speeds in excess of 25 knots and wave heights above 2.5m). The actual weather conditions to be determined at the time of the manoeuvre.
13. LNG vessel transits will be programmed for transits through the Clinton Bypass Channel. Transiting through the main Clinton Channel is feasible at reduced speeds (in the vicinity of about 3 knots).
14. Four (4) tugs will be utilised for all berthing/unberthing operations. Two tugs will act as escorts from the Fairway entrance and two will join the inbound vessel in the vicinity of G4 and be made fast subject to the discretion of the Pilot in charge in conjunction with the Master. Two tugs will be released on departure in the vicinity of G4. The remaining two tugs will escort the vessel to the Fairway entrance.
15. A standby tug with full fire fighting capability will be on station whilst an LNG vessel is at the berth. Sharing of standby tugs may be acceptable and will be subject to a response time of ten minutes (for further discussion and approval by the RHM).
16. In the case where an emergency departure from the berth is necessary, a second tug will be required in addition to the standby tug. (The response time for the second tug to be determined). Thirty minutes is considered acceptable
17. Escort tugs may be deployed in other Port operations when not in attendance at an LNG vessel.
18. Operating parameters covering LNG vessel e.g. draft/daylight hour, operation/weather conditions etc. will be set at a restricted level in the early stages of an LNG Operations Facility commencing. These parameters will be reviewed during the 'settling in period' where the working results can be validated against the simulation results in order to mirror or modify the "operational condition requirements" determined during simulation.
19. Once validation has been completed, then it is expected that LNG vessels will be handled during the hours of darkness subject to suitable weather conditions (simulated first).
20. Pilot allocation will be two Pilots for the transit (in and out) subject to review following commencement of operations (possibly six months depending on the number of LNG transits carried out during that time).
21. Pilots will not be required to remain onboard an LNG vessel whilst alongside but must be available within the time specified for the second tug to be in attendance.

22. Vessel scheduling:

- Priority of shipping will remain as per existing Port Rules except as stated below;
- Ship scheduling will be carried out as at present by ship schedulers under the authority of the RHM and in accordance with the following principles;
- LNG Vessels will advise their ETAs/ETDs as soon as possible and confirm ETA at least 48 hours prior to arrival;
- The ship scheduler will schedule the movement of the LNG vessel after consultation with the vessel's Agent;
- Once the time slot has been agreed between the RHM and the Agent, then no other vessel may occupy that time slot;
- Other vessels that may experience delays may not occupy the time slot agreed for the movement of the LNG vessel except by mutual arrangement;
- LNG vessels that miss their time slot will be allocated the next available time slot that fits in with other port movements;
- Any vessels at risk of being tidally constrained at a berth shall have priority;
- All other movements shall take place on a first come first served basis;
- All vessel movements shall be subject to the approval of the RHM;
- For tandem tethered towage the vessels will be equipped with adequate bollards and fairleads to the required capacity and configuration;
- Vessels will have an International Association of Classification Societies, (IACS) Cap 2 classification for vessels 15 years and older.

23. Additional parameters may be placed on operations at individual terminals as circumstances dictate.

24. These parameters will be reviewed on a regular basis as the LNG trade continues to develop and may be varied from time to time as considered necessary.

Additional Operating Parameters for LNG Vessels at Fishermans Landing (LNG Ltd)

1. Spherical Tank LNG Carriers (MOSS vessels) will not be considered without additional review of the channel and swing basin through further simulation studies.
2. The maximum vessel size to be accommodated is Membrane Type LNG vessels up to 152,000 m³ with a laden draft of up to 11.4m and arrival draft of up to 9.8m.
3. A restriction may need to be placed on the positioning of the stern/bow of the vessel moored at Berth 4 and adjacent to Berth 5 when an LNG ship is berthing at Berth 5.
4. Bridge leads are essential. Additional markers may be required if natural markers (eg; LNG Storage Tank and LNG Liquefaction facility) are insufficient.
5. There will be a restriction on ebb tide arrivals and departures with wind speed at or exceeding 15 knots out of the north to east quadrant. For all other quadrants, there will be a restriction on flood and ebb tide arrivals and departures with wind speeds at or exceeding 20 knots.
6. Preference shall be given to scheduled arrivals and departures on the flood tide.
7. Whether the vessel is swung to port or starboard is at the discretion of the ship's Pilot and Master.
8. Vessels using Fisherman's Landing Berth 5 will have an International Association of Classification Societies, (IACS) Cap 2 classification.
9. For tandem tethered towage, the LNG vessels will be equipped with adequate bollards and fairleads with the required capacity and configuration for indirect mode of operation of the escort tugs.
10. A UKC of 1.2m is satisfactory for swinging on arrival. Under normal operations vessels shall be berthed starboard side to the wharf. In the event that a vessel is berthed portside to, the vessel shall be swung prior to loading commencing and this manoeuvre will be undertaken nominally at high water or low water slack.
11. For normal operations a minimum UKC of 1.2m shall be retained throughout vessel arrivals and departures.
12. The vessel shall be loaded such that a minimum UKC of 0.3m for the swing basin and channel shall be retained at all times while the vessel is alongside the berth to ensure the vessel can be removed from the berth to the Targinie Swing Basin in the event of an emergency. A minimum of 2 x 62t bollard pull tugs will be required to remove the vessel from the berth and hold the vessel in the swing basin until such time as additional tugs are able to assist.
13. The Clinton Bypass Channel will be used under normal operations. The main Clinton Channel can be used as an alternative at reduced speeds (about 3 knots) and any other restrictions that may apply.
14. A berthing display board (rate, angle, distance off berth) located on wharf shall be provided to be visible from the vessel's bridge in all conditions of daylight and dark.



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15. Two escort tugs will be utilised for both inbound and outbound transits. These tugs shall be a minimum of 80tp. Two harbour tugs in addition to the escort tugs shall be utilised for vessel manoeuvring west of G4 buoy.

In general, the operation of LNG carriers within the Port of Gladstone shall comply with the industry recommendations as agreed by Maritime Safety Queensland

These Gladstone Ports Corporation – LNG Vessel Operating Parameters are also subject to the Gladstone Port Procedures and powers of the Regional Harbour Master under the *Transport Operations (Marine Safety) Act 1994*.

The provisions of Port Notice 04/10 Gladstone Ports Corporation – LNG Vessel Operating Parameters, dated 05/05/2010 are hereby revoked.

Peter O'Sullivan
Chief Executive Officer

23 February 2017