

STANDARD OPERATING PROCEDURE (SOP) FOR BERTHING OF APPROVED BARGES AT BCA AGGREGATE TERMINALS

(Small Barge : under 82 metres Length Overall (LOA)

Medium Barge : 82 metres \geq 111 metres (270 FT \geq 365 FT) LOA with max displacement \leq 20,000 MT

Large Barge : 112 metres \geq 128 metres (366 FT \geq 420 FT) LOA with max displacement \leq 30,000 MT)

(A) Pre-Arrival

This SOP is applicable for the berthing of all barges.

1. Applicant / Lead Importer shall declare that owners, agents and masters of vessels will at all times comply with the requirements of the MPA and other relevant government agencies; that all machinery and equipment on the tug and barge are functioning properly; and that the barge is able to lower and raise the ramp without external assistance.
2. The applicant must conduct a Risk Management (RM) of his intended operations and provide a copy of the RM and operations procedures approved by a Ministry of Manpower registered Safety Officer to the Terminal Manager.
3. The RM submitted is to be reviewed annually and when changes to the operations are made.
4. The applicant must clearly identify all Responsible Personnel, all of the key personnel involved in the operations and the contact details of all the personnel. The applicant must ensure compliance with all the requirements of RM and instructions from the Terminal Manager on safety matters.
5. The applicant is responsible for carrying out checks on the condition of the berth assigned and report if any abnormalities are found. Barge and craft shall be Class approved. All relevant documents must be furnished and approved by Terminal Manager before deployment to the work.

(B) Approach & Arrival

1. Pilotage is required for all operation to the Aggregate Terminal. All vessels are to be piloted or exempted from pilotage in accordance to MPA's requirements.
2. Vessels shall not proceed to the berthing area until permission is obtained from the Terminal Manager. Vessels are to wait at the approved anchorage while waiting to berth.
3. When the vessel arrives, the master or pilot are to call the Terminal Manager for permission to land or moor at the buoys.
4. The mother tug with one assisting tug of sufficient horsepower (minimum 10-tonne bollard pull) shall be deployed and in attendance to the barge at all times including berthing, during the unloading of the cargo and unberthing activities (for small barges, only one tug is required). Tugs should always be on standby, in the vicinity of the berthing lanes they are assigned, to correct the vessel's fore and aft orientation with the shoreline so as to avoid undue stress and misalignment of the ramp.

5. Intra Port movement by tug and tow is to be carried out by 1 main tug and 1 small assisting tug of at least 10-tonne bollard pull (refer to MPA guideline on size of tug).
6. The master of the tugboat is to seek permission to land by reporting the name of the tug, name of the barge and gross tonnage, draft of the barge and name of assisting tug to the Terminal Manager. The master will need to confirm that all equipment on board the tug and barge are in good working condition as per the declaration made in Form A by the Licenced Importer.

(C) Berthing

1. Importers are to check with the Terminal Manager on the least depth available at their berth.
2. The importer's representative or the nominated person in charge is to ensure that all personnel wear proper PPE at all times.
3. Proper mooring gang is to be used for mooring operations. A mooring boat is to be used for mooring operations at the mooring buoy.
4. All barges to be moored directly to the shore bollards with adequate mooring lines and sufficient tidal level, in the approved mooring arrangement.
5. Line-towing is to be carried out only during daylight hours (0630hrs to 1900hrs).
6. No berthing and un-berthing movement is to be carried out during adverse weather conditions and/or poor visibility (<2 nm).
7. Operations should cease temporarily when a barge is arriving or departing from an adjacent berth.
8. After permission to berth is granted, masters of tugs/barges shall proceed with caution and ensure that there is no berthing/un-berthing activities in the vicinity of the berthing lanes they are assigned before entering or departing from their berths. The tug master shall communicate regularly with the Terminal Manager of the respective Aggregate Terminal when carrying out the manoeuvres.

(D) Set-up and discharging

1. The mooring lines of the barge are to be tended at all times.
2. The importer's representative must ensure that operations are safe at all times for vehicles, machinery and personnel. All vehicles, machinery and equipment used must be properly certified and approved for the intended use. All personnel operating the vehicles, machinery and equipment must be properly trained and certified.
3. No personnel from the barge and tug(s) should be permitted to disembark from the barge onto the shore during discharging operations. Personnel who need to go ashore must be ferried to the proper landing point.

4. Importer or its representative is to ensure that adequate lighting is provided at all times. The working area on the barge and the ramp must be properly lit by lights on the barge, from the tugboat or by external lights. The headlights of the vehicles should not be the sole source of illumination.
5. Cargo operations should be suspended if any condition of safety is breached. The situation should be reported to the Terminal Manager and remedial measures set in place before operations resume.

(E) Departure

1. Importer or its representative is to ensure that the barge ramp has been retrieved and secured prior to departure. For departure, the master of the tug boat will seek the Terminal Manager’s permission to depart and provide the name of the assisting tug. Departure from the berth should only commence when permission is granted by the Terminal Manager.
2. The mooring lines will be released from the mooring buoy by the mooring gang and cast off for retrieval by the tug/barge crew. The mooring lines to the shore will similarly be cast off by the mooring gang.
3. The master to report when the tug and barge are clear of the terminal area. If there is any incident, the master of the tug boat must report it immediately to the Terminal Manager.

(F) Communication Plans

For clarity all communication are to be conducted using the IMO Standard Marine Communication Phases (SMCP). Backup communications will include office, control room and mobile phone numbers.

MPA Jurong Control	VHF Channel 22
MPA Sembawang Control	VHF Channel 21
Vessel Traffic Management enquiries	Tel: 6325 2493 / 6325 2494
MPA Marine Environment and Safety	VHF Channel 07
Marine Environment & Safety enquiries	Tel: 6325 2488 / 6325 2489
PSA MARINE pilot office	VHF Channel 20
Communication with pilot	Pilot Walkie Talkie Ch. P08/ Ch. P05/ VHF Ch. 09
MPA Pilot	VHF Channel 09
Mother Barge and assist tug	
Contractors / Agents	
Vessel and tender tug	

Notes:

- a) At all times the safety of crew on board, personnel engaged in the transfer operations and personnel ashore cannot be compromised.
- b) The allowable berthing duration is calculated based on:
 - i. 4 hours for the first 1,000 tonnes of cargo
 - ii. 2 hours for every subsequent 1,000 tonnes of cargo or part thereof
- c) Overstay is allowed only when the respective berthing lane is not scheduled for use by other barges. If permission to stay beyond the allowed number of hours is granted, the overstay surcharge will be charged. If permission is not granted, the tug and barge should depart to the waiting area at the appropriate anchorage.

An overstay surcharge of \$150 per hour will be imposed and payable to the Terminal Manager for exceeding the allowable berthing duration.

- d) In the event of any damage caused to the berth or other facilities during the period of use, all repair and inspection charges will be borne by the applicant.
- e) The following is a guideline to determine the tidal required for berthing of barges

Under Keel Clearance required [A] 0.6 metres

Draft of barge [B] 4.0 metres (example)

Depth of water required [C] 4.6 metres [A] + [B]

For example, Depth at terminal [D] 2.7 metres

Minimum tidal height required 1.9 metres [C] – [D]

- f) The tug master/ crews should abreast with latest information provided on PSA/MPA radio channel used at PPAT and TAT as well as by all MPA Port Marine Notices and Circulars.
- g) The Authority reserves the right to revoke this approval to berth without prior notice and will not be responsible for any loss or damages to the applicant in whichever way.