

## APPENDIX B

### APPENDIX B: BULK TRANSFER PROCEDURES

- B1 These procedures should be used prior to, during and after, any transfer offshore of bulk cargo to or from the vessel.
- B2 Prior to the start of operations, hoses should be visually inspected and doubtful lengths replaced. Slings and lifting points should also be visually checked and replaced if required. Hoses should only be lifted by a certified wire strop on a certified hook eye fitting. Hoses should be secured to the vessel by a rope lashing before disconnection from the crane. Further rope lashings at appropriate places will minimize 'kicking' of dry bulk hoses in particular.
- B3 The following information should be requested by the Installation (or by the Master if bulk is to be transferred from the Installation to the vessel).
- (a) Estimated pumping rate for each product.
  - (b) Length of warning/estimate of time required to stop.
  - (c) Emergency stop procedure.
  - (d) Confirmation that the lines can be drained back to the vessel's tanks where necessary.
- B4 The Master should be provided with the following information:
- (a) size of hose
  - (b) type of connection
  - (c) length of hose available.
  - (d) colour scheme in operation (hose and/or product).
  - (e) maximum loading rate/pressure permitted.
  - (f) quantities of each product required, the order in which they are required, and an estimate of the time at which they will be required.
- B5 When the hose is connected and installation lines are set, the support vessel should be directed to start pumping at a slow rate. For dry bulk transfers, purge air should be utilized prior to bulk transfer to clear lines and prove connections.
- B6 If all is well and no leaks are observed, the support vessel should be advised to increase pumping, up to the full delivery rate.
- B7 When pumping has finished, both the installation and the support vessel should set their lines to allow the hose to be drained back to the vessel's tank. If the installation has a vacuum breaker fitted to the line, this should be used to aid draining. Lines may also be blown through with air, if available, to ensure that they are properly cleared. In suitable conditions the crane should also be used to lift the hose to aid draining.
- B8 When the hose is disconnected, the end should be fitted with a suitable cap or blank.

- B9 Every bulk liquid hose should, as far as practicable, be drained back to the vessel's tank(s).
- B10 Hoses used for potable water should not be used for transferring other bulk liquids, including ordinary fresh water.
- B11 During periods of darkness, adequate illumination should be available over the hose and support vessel throughout the operation. To facilitate identification, hoses should be fitted with high visibility bands or high visibility tape.
- B12 Hoses are normally colour coded for manufacturer's identification and approval, frequently by use of spiral coloured bands within the hose structure. This colour scheme is optional. The hose terminations should be colour-coded by use of a coloured band to mark the product, and all support vessels and installations should adopt a universal colour and connection scheme as follows:

<b>PRODUCT</b>	<b>COLOURED BAND</b>	<b>CONNECTION</b>
Potable Water	Blue	4" Kamlock/Weeko or quick release self-sealing coupling
Drill Water	Green	4" Kamlock/Weeko or quick release self-sealing coupling
Fuel	Brown	3" or 4" Kamlock with shut-off valve or quick release self-sealing coupling
Dry Bulk	Cement:—Yellow Baryte/Bentonite:—Orange	4" or 5" Kamlock or Weeko fitting
Brine	Optional	4" Kamlock with ball valve or air blow-down facility
Dedicated base oil/Oil based mud	Black	4" quick release self-sealing coupling

- B13 All bulk hoses used offshore must be type approved by the appropriate certifying authority.
- B14 All bulk hoses used offshore are to be of sufficient length for safe operation, and have internally swaged or other approved clamp fittings. Unapproved repairs should not be made.
- B15 Passing hoses to vessels is a hazardous operation and it should be supervised by a competent person on the installation with direct communication to the bridge officer of the watch of the vessel.

- B16 During the period a vessel is connected to bulk hoses, continuous radio communication should be maintained, and the crane driver should remain in his cab until agreed otherwise. In addition, relevant installation personnel should stand by appropriate valves so as to act quickly in event of an emergency.
- B17 A work permit system should be used if it becomes necessary for ship's crew or any other personnel to enter a bulk tank, and the relevant regulations must be complied with.