

General Directions for Navigation in the Port of London

2009



CONTENTS

| | | Page |
|---------------|--|------|
| | Contents | |
| | Introduction | 1 |
| | Notes to the General Directions | 2 |
| NUMBER | GENERAL DIRECTIONS | |
| 1 | Commencement | 3 |
| 2 | Short Title | 3 |
| 3 | Definitions and Interpretation | 3 |
| 4 | Use of VHF Radio | 10 |
| 5 | Use of VHF Radio in Collision Avoidance | 11 |
| 6 | Machinery and Equipment condition and readiness, Oily Water Separators and Bilge Systems | 11 |
| 7 | Automatic Steering and Backup Steering Gear | 12 |
| 8 | Port Passage Plans | 12 |
| 9 | Marking of sterns of Class IV, Class V and Class VI Passenger Vessels | 13 |
| 10 | Display of a Red Light by Specified Vessels | 14 |
| 11 | Local Navigation | 14 |
| 12 | Navigation Risk Assessment | 14 |
| 13 | Reporting Vessel Movements in the Thames | 15 |
| 14 | Vessel Traffic Management in the Knock John Channel | 16 |
| 15 | Vessel Traffic Management in the Princes Channel | 17 |
| 16 | Restrictions of Movement of Certain Vessels | 18 |
| 17 | Restrictions on Towing and Pushing | 19 |
| 18 | Persons on the Bridge | 19 |
| 19 | Exclusion Zones | 19 |
| 20 | Offshore Wind Turbine Towers | 20 |
| 21 | Conduct in Restricted Visibility | 20 |
| 22 | Reporting Restricted Visibility | 20 |
| 23 | Navigating, waiting and Anchoring | 20 |
| 24 | Overtaking Manoeuvres | 21 |
| 25 | Separation with respect to Specified Vessels and Procedures for Vessels carrying Liquefied Natural Gas | 21 |
| 26 | Vessels navigating between Sea Reach No.6 Buoy and Crossness | 22 |
| 27 | Navigation in the Thames Barrier Control Zone | 22 |
| 28 | Lookouts on Vessels navigating above the Thames Barrier | 24 |
| 29 | Lights on Vessels Navigating upstream of Cherry Garden Pier | 25 |

| | | |
|----|--|----|
| 30 | Navigation between Cherry Garden Pier and Bell Lane Creek – Special Signal Lights | 25 |
| 31 | Large Vessel Transits of Tower Bridge | 27 |
| 32 | Navigating above Tower Bridge – Limitations on Vessels Towing | 28 |
| 33 | Requirement for Operational AIS | 28 |
| 34 | Speed Restrictions | 29 |
| 35 | Compliance with a VTS Instruction | 29 |
| | APPENDIX | |
| | <i>Notes to General Direction</i> | 30 |

GENERAL DIRECTIONS FOR NAVIGATION IN THE PORT OF LONDON 2009

Introduction

The Port of London Authority (PLA), in exercise of its powers under Section 111 of the Port of London Act 1968, as amended (the Act) and as the Competent Harbour Authority under the provisions of the Pilotage Act 1987, and with the agreement of the Chamber of Shipping, repeals the PLA General Directions 2006 (as amended) and gives the following General Directions to vessels in the Port of London.

In order to maintain and enhance safety of navigation within the Thames, it is important that Masters and watchkeepers are aware of current Byelaws, Directions and Notices to Mariners. It is therefore vital that owners/agents ensure that all such relevant information and publications are promptly distributed to vessels as appropriate.

Note should also be taken, as appropriate, of the content of the VHF Navigation Information Broadcasts issued on a regular basis by the two PLA VTS Centres (London VTS).

These General Directions are to be construed in conjunction with:

- (a) the Port of London River Byelaws 1978 (as amended), which include and amend the International Regulations for Preventing Collisions at Sea 1972 (as amended), as now given effect by the Merchant Shipping (Distress Signals and Prevention of Collisions) Regulations 1996 (as amended);
- (b) any Special Direction given by a Harbourmaster under Section 112 of the Act; and current:
- (c) Port of London Dangerous Substances in Bulk Byelaws; and
- (d) Notices to Mariners, including Permanent Notices to Mariners.

It is the duty of the Master of a vessel to which a General Direction applies to comply with that Direction. However, the giving of a Direction does not diminish or in any other way affect the responsibility of the Master in relation to his vessel, persons on board, its cargo or any other person or property (Section 116 of the Act).

Failure by the Master of a vessel to comply with a Direction constitutes an offence, and renders that person liable, on conviction, to a fine up to level 5 on the standard scale. However, it is a defence for the Master of a vessel to prove that he had reasonable grounds for supposing that compliance with the Direction in question would be likely to imperil his vessel or that in the circumstances compliance was impracticable (Section 117 of the Act).

Notes to the General Directions

Notes accompany some Directions. Such notes are in italics and are included to explain the purpose of the Direction or to highlight changes in content and presentation from the last published General Directions (2006).

These notes are for information only and do not in any way form part of the General Directions.

July 2009

General Directions for Navigation in the Port of London 2009

1. COMMENCEMENT

These Directions shall come into force on 1 September 2009, on which date the General Directions for Navigation in the Port of London 2006 (as amended) are revoked.

2. SHORT TITLE

These Directions may be cited as the PLA General Directions 2009.

3. DEFINITIONS AND INTERPRETATION

(1) In these Directions:

- a) "the Act" means the Port of London Act 1968 (as amended);
- b) "AIS" means Automatic Identification System;
- c) "Barge" includes dumb vessels, including but not limited to: barges, lighters, collar and mooring barges, crane barges and engineering barges, pontoons, oil storage/processing barges and dredgers, but excludes any power-driven vessels;
- d) "Berthing Assistance" means the provision of manoeuvring advice and local knowledge during berthing or unberthing operations involving any vessels not subject to compulsory pilotage, between the berth in question and a point in the Thames not more than one nautical mile from that berth;

Note: *In order to acquaint himself or herself with the vessel and to effect an appropriate handover, the person undertaking Berthing Assistance will often need to board the vessel at a distance greater than one mile from the berth, but shall only conduct Berthing Assistance from one mile from the berth.*

- e) "Bunker Vessel" means any vessel, normally navigating within the Thames, used for the storage, transportation or delivery of oil products to vessels or facilities in the Thames;
- f) "Certificated Person" means either a pilot authorised by the PLA or PEC holder for the vessel or any other person certificated by the PLA to conduct Local Navigation in accordance with regulations contained in the Schedule to these Directions;

Note: *The Schedule referred to above is published separately, and copies can be obtained from the PLA's Gravesend office.*

- g) "Class" means a reference to that class within the classification specified in column 2 of Part 1 of Schedule 1 to the Dangerous Substances in Harbour Areas Regulations 1987;
- h) "Commercial Vessel" means any vessel which is not a Pleasure Vessel;
- i) "Denton Limit" means a line drawn north/south through the eastern extremity of Denton Wharf;
- j) "Designated Anchorage" means an area designated by a Harbourmaster as an anchorage area or berth and published on charts, in the PLA Handbook of Tide Tables and Port Information or in Notices to Mariners;
- k) "Exclusion Zone" means any area of the Thames, defined by a Harbourmaster as being closed temporarily to general navigation for the purposes of navigational safety or emergency response;
- l) "Fairway" means a regular course or track of shipping, comprising all marked and/or charted navigable channels within the Thames and includes the following areas:
 - i) The Fisherman's Gat;
 - ii) The Princes Channel from the Tongue Sand Towers to the Oaze Precautionary Area;
 - iii) The Black Deep and Knock John Channels from the seaward limit to the Oaze Precautionary Area;
 - iv) The Barrow Deep and Mouse Channels from the seaward limit to the Warp;
 - v) The East and West Swin Channels from the seaward limit to the Warp;
 - vi) The Warp;
 - vii) The Oaze Precautionary Area; and
 - viii) The Thames to the west of Sea Reach No. 1 Buoy;

- m) "Gross Tonnage" in relation to a vessel means the tonnage as ascertained in accordance with the International Convention of Tonnage Measurement of Ships 1969, or the Merchant Shipping (Tonnage) Regulations 1982, as amended, and where in accordance with those regulations alternative tonnages are assigned to a vessel, the Gross Tonnage of the vessel shall, for the purposes of these Directions, be taken to be the larger of those tonnages;
- n) "Harbourmaster" means a person appointed by the PLA to be a Harbourmaster and includes the deputies and assistants of a person so appointed and Officers authorised to discharge the Harbourmaster's duties through one of the PLA VTS Centres;
- o) "High Speed Craft Code" means the International Code for the Safety of High-Speed Craft 2000, as adopted by IMO as Annex to Resolution MSC.97(73), as amended by MSC.119(74);
- p) "IMO" means the International Maritime Organisation;
- q) "ISM Code" means the International Management Code for the Safe Operation of Ships and for Pollution Prevention as adopted by IMO in Resolution A.741(18);
- r) "International Collision Regulations" means the International Regulations for Preventing Collisions at Sea 1972 (as amended), as now given effect by the Merchant Shipping (Distress Signals and Prevention of Collisions) Regulations 1996 (as amended);
- s) "Intra-port Vessel" means a vessel that normally navigates wholly within the Thames, including to and from the Medway ports;
- t) "Length Overall" means the maximum length of a vessel, including overhanging structure, cargo or equipment, and if a Tug and tow, the combination of the Tug and the object(s) towed but not the length of the towing medium;
- u) "LNG" means liquefied natural gas;
- v) "LPG" means liquefied petroleum gas;
- w) "Local Navigation" means Shifting Pilotage, Voluntary Movement or Berthing Assistance;
- x) "Margaretness Limit" means a line drawn across the Thames from the Margaretness Light in a direction 334° (T);
- y) "Master" in relation to a vessel, means any person having or taking the command, charge or management of a vessel, for the time being;

- z) "Narrow Channel" means these channels in the following areas:
 - i) The Fisherman's Gat;
 - ii) The Princes Channel from the Tongue Sand Towers to the Oaze Precautionary Area;
 - iii) The Knock John Channel from Black Deep No. 9 Buoy to the Oaze Precautionary Area;
 - iv) The Mouse Channel from Barrow No. 12 Buoy to Barrow No. 14 Buoy;
 - v) The Oaze Precautionary Area; and
 - vi) The Thames to the west of Sea Reach No. 1 Buoy;
- aa) "Notices to Mariners" means Notices to Mariners issued by the PLA;
- bb) "Passenger Boat" means a vessel used for carrying passengers;
- cc) "Passenger Vessel" has the same meaning as the Merchant Shipping (Survey and Certification) Regulations 1995;
- dd) "PEC" means Pilotage Exemption Certificate granted under Section 8 of the Pilotage Act 1987;
- ee) "Permission to Proceed" means authorisation by a Harbourmaster to navigate as proposed by a vessel;
- ff) "PLA" means Port of London Authority;
- gg) "Pleasure Vessel" means:
 - i) any vessel which at the time it is being used is:
 - a) i) in the case of a vessel wholly owned, chartered or hired by an individual or individuals, used only for the sport or pleasure of the owner or the immediate family or friends of the owner; or
 - ii) in the case of a vessel owned by a body corporate, one on which the persons onboard are employees or officers of the body corporate, or their immediate family or friends; and
 - b) on a voyage or excursion, which is one for which the owner does not receive money for or in connection with operating the vessel or carrying any person, other than as a contribution to the direct expenses of the operation of the vessel incurred during the voyage or excursion; or
 - ii) any vessel wholly owned by or on behalf of a members' club formed for the purpose of sport or pleasure which, at the time it is being used, is used only for the sport or pleasure of members of the club or their immediate family; and for the use of which any charges levied are paid into club funds and applied for the general use of the club and/or upkeep of the vessel; and

- iii) in the case of any vessel referred to in paragraph (a) or (b) above no other payments are made by or on behalf of the users of the vessel, other than by the owner;

and in this definition “immediate family” means, in relation to an individual, the husband, wife or partner of the individual, and a relative of the individual or the relative’s husband, wife or partner, and “relative” means brother, sister, ancestor or lineal descendant;

Note: *The definition of Pleasure Vessel follows closely that used in the Merchant Shipping (Survey and Certification) Regulations 1995.*

hh) “Port Passage Plan” means a systematic and documented navigational plan for all stages of any voyage into, out of or within the Thames in accordance with the guidelines contained in the appropriate SOLAS regulations, High Speed Craft Code or any similar flagstate administration notice issued pursuant to the associated IMO Conventions on Standards of Training, Certification and Watchkeeping for Seafarers (STCW);

ii) “Reporting Vessel” means every vessel which is required by these Directions to report its position, intentions or movements, specifically:

- i) vessels of more than 40 metres in length overall,
- ii) vessels of Gross Tonnage of more than 50 tons which ordinarily also navigate outside the Thames; and
- iii) tugs engaged in towing, or about to tow one or more vessels;

jj) “Restricted Visibility” means all circumstances when visibility is less than 0.5 nautical miles;

Note: *Within the Thames a Harbourmaster or his designated deputy may, using all available information, decide that Restricted Visibility pertains in a particular area or at a particular time or is likely to pertain and inform shipping as appropriate.*

kk) “River Byelaws” means the Port of London River Byelaws 1978 (as amended);

ll) “Shifting Pilotage” means the movement of a vessel other than:

- i) Specified Vessels;
- ii) Passenger Vessels of 50m or more in length overall;
- iii) vessels carrying marine pollutants in bulk;
- iv) vessels over 230m length overall between the Denton Limit and Queen Elizabeth II Bridge;
- v) vessels over 140m length overall between Queen Elizabeth II Bridge and Margaretness; and

- vi) vessels over 100m length overall between Margaretness and London Bridge; no more than two nautical miles in the Thames in the area between London Bridge and the Denton Limit for the purpose of changing any vessel from one berth, mooring or anchorage to another berth, mooring or anchorage, or of taking it into or out of any dock from or to another berth, mooring or anchorage;
- mm) "SOLAS" means the International Convention for the Safety of Life at Sea;
- nn) "Special Direction" means a Direction authorised by Section 112 of the Act;

Note: Section 112 of the Act empowers a Harbourmaster to give a Special Direction to a vessel anywhere in the Thames.
- oo) "Specified Vessel" means any vessel having on board (including in its slop tanks), quantities of the following (IMO codings in brackets):
 - i) Explosives (Class 1, excluding Class 1.4), in excess of 10 kg Net Explosive Quantity;
 - ii) LNG in bulk, LPG in bulk or being non-gas free following discharge of these cargoes;
 - iii) Flammable liquids and substances in bulk or being non-gas free following discharge of these cargoes (Class 3 of flashpoint <23° C); and /or
 - iv) Toxic and corrosive substances in bulk or being non-gas free following discharge of these cargoes (Classes 6.1 and 8.0);
- pp) "Speed Reduction" means an instruction from London VTS requiring vessels to proceed at "reduced speed" through areas where activities sensitive to the effects of wash or draw-off are taking place.

Note: At such times, mariners should reduce speed as appropriate, in order to minimise wash and draw-off, commensurate with maintaining manoeuvrability, to ensure the safety of those engaged in such activities.
- qq) "Speed Restriction" means any temporary limitation on the speed of vessels in a part of the Thames;
- rr) "Thames" means so much of the River Thames, the Thames Estuary, rivers, streams, creeks, watercourses and the sea as is within the port limits described in paragraph 2 of Schedule 1 to the Act;

- ss) "Thames Barrier" means the flood prevention barrier, which crosses the Thames in Woolwich Reach;
- tt) "Thames Barrier Control Zone" means the area of the Thames between the Margaretness Limit and a line drawn due north from Blackwall Point;
- uu) "TBNC" means Thames Barrier Navigation Centre;
- vv) "Voluntary Movement" means the provision of onboard practical navigation and manoeuvring assistance and advice to vessels not subject to compulsory pilotage in the Thames not falling within Shifting Pilotage or Berthing Assistance;
- ww) "VTS Centre" means the Vessel Traffic Service Centres at Gravesend (Port Control Centre) and Woolwich (Thames Barrier Navigation Centre) - Call Signs "London VTS" and includes any other Vessel Traffic Services control point through which a Harbourmaster's instructions and advice are issued to Masters of vessels by VHF radio and to which vessels report;
- ww) "VTS Instruction" means any message, prefixed with the word "Instruction", sent by a PLA VTS Centre to any vessel.

- (2) In these Directions, unless the context otherwise requires:
- a) words and expressions used in these Directions have the same meanings as in the Act;
 - b) unless stated otherwise in a particular Direction, for the purposes of Section 111(2) of the Act, all Directions shall be deemed to apply to all vessels, to the whole of the Thames and at all times, and a Direction addressed to a Master shall be deemed to apply to the vessel of which he is the master;
 - c) the Direction headings form part of and affect the construction and interpretation of the Directions;
 - d) unless the context otherwise requires, words importing one gender include the other gender; and words in the singular shall include the plural and vice versa;
 - e) where these Directions refer to an enactment or to subordinate legislation, the reference, unless the contrary intention appears, is a reference to that enactment or the subordinate legislation:
 - (i) as amended and includes a reference thereto as extended or applied by or under any other enactment or subordinate legislation including any other provision of the Directions; and
 - (ii) as re-enacted with or without modifications from time to time.

4. USE OF VHF RADIO

- (1) This Direction shall apply to: Reporting Vessels;
Passenger Boats;
Tugs;
Bunker Vessels;
Vessels engaged or intending to engage
in fishing; and
Vessels of 13.7m or more in length overall;

except:

- a) narrow boats greater than 13.7m in length overall navigating between Brentford and Teddington;
- b) Pleasure Vessels greater than 13.7m in length overall navigating to the west of Bow Creek, provided that:
- i) they are travelling in company or a flotilla;
 - ii) they are not the lead vessel of that company or flotilla; and
 - iii) there is a lead vessel, which complies with the requirements of this Direction and is able to communicate immediately and effectively with all other vessels in the company or flotilla; or
- c) vessels under oars.
- (2) A narrow boat excepted under Direction 4. (1) a) above, shall call London VTS by telephone and report its estimated time of departure from the point of departure and estimated time of arrival at its destination, and again report when it has reached its destination.
- (3) Any vessel or group of vessels planning to exercise the exemption under Direction 4. (1) b) above, shall either individually or through the lead vessel:
- a) provide at least 7 days notice to the Harbourmaster of their intention to navigate on the Thames;
 - b) comply with any conditions for their passage required by the Harbourmaster; and
 - c) report, through the lead vessel, to London VTS prior to commencing navigation on the Thames, providing details of the vessels involved, their destination and estimated time of arrival. Upon completion of the passage the lead vessel shall inform London VTS of their arrival.
- (4) On every vessel to which this Direction applies, at all times when underway or at anchor there shall be:
- a) an operational VHF radio capable of communicating with a Harbourmaster at the VTS Centres;
 - b) an effective, continuous listening watch maintained on the VHF channel appropriate to that part of the Thames in which it is navigating or lying;
 - c) compliance with the communications requirements set out in these Directions for the use of VHF radio; and

d) manning and operation of the VHF radio by a suitably qualified person, capable of communicating effectively in English.

- (5) Prior to a vessel's departure from a berth, pier or anchorage, the appropriate PLA VHF channel shall be monitored for information that may affect the safe navigation of the vessel, including the routine half-hourly VHF navigation information broadcast made immediately prior to the intended departure time.

Note: Notwithstanding that only Reporting Vessels routinely report their movements (see General Direction 13), other than in the Thames Barrier Control Zone (see General Direction 27), other vessels to which this Direction applies should generally "listen and learn" from VHF radio traffic. They must however, report in an emergency and when required by the Harbourmaster.

- (6) Reports by Specified Vessels navigating in the Thames shall always be prefixed with the word "SPECIFIED" in any VHF communication with a VTS Centre or other vessel.

5. USE OF VHF RADIO IN COLLISION AVOIDANCE

When special passing agreements are made between vessels in order to remove the risk of collision, communication must be conducted on the appropriate port working frequency to ensure that the relevant VTS Centre and other river users are aware of the vessels' intentions.

Note: The Maritime & Coastguard Agency issues advice on this topic in the form of Marine Guidance Note 167 (M+F).

6. MACHINERY AND EQUIPMENT CONDITION AND READINESS, OILY WATER SEPARATORS AND BILGE SYSTEMS

- (1) Where the navigation of a vessel may be affected by reason of any structural, mechanical or equipment defect (including, but without prejudice to the generality of the foregoing, limitations of power on any propulsion equipment or manoeuvring aids), and upon becoming aware of such defect when in the Thames or upon entering the Thames:
- a) the appropriate VTS Centre shall be informed immediately;
 - b) such vessels shall not move or move further in the Thames without first having obtained the consent of a Harbourmaster; and
 - c) then, the vessel shall move only in accordance with the direction of a Harbourmaster.
- (2) Except in an emergency, no changes are to be made to machinery configuration, including machinery generating power, whilst underway and in the vicinity of structures or other vessels.

- (3) Whilst vessels are in the Thames, all oily water separators are to be isolated and bilge overboard discharge valves secured closed, to prevent accidental discharge.
- (4) The Master of any vessel under pilotage shall ensure that no ballasting, de-ballasting or internal transfer of cargo, which significantly alters the draught, trim or handling characteristics of the vessel, shall take place without the prior knowledge and agreement of the authorised pilot.

7. AUTOMATIC STEERING AND BACKUP STEERING GEAR

- (1) When use is being made of an automatic pilot steering device, a qualified helmsman, other than the authorised pilot, is to be present on the bridge to steer the vessel manually should circumstances demand.
- (2) Any duplicate, secondary or backup steering gear and steering gear power systems are to be fully operational and ready for immediate use whilst vessels are navigating within the Thames. Emergency steering gear systems should have been recently tested.

8. PORT PASSAGE PLANS

- (1) All Reporting Vessels ordinarily navigating outside the Thames, shall, prior to navigating in the Thames, prepare a Port Passage Plan for use during the vessel's passage in the Thames.
- (2) On Reporting Vessels ordinarily navigating outside the Thames provided with an authorised pilot, the embarking pilot, upon arrival on board and following any action to establish the navigational safety of the ship, will advise the vessel's Master of the details of the pilot's Port Passage Plan. He will also advise the Master of any changes made necessary to the vessel's Port Passage Plan by local circumstances. Before proceeding with the passage the Master and the pilot shall agree the Port Passage Plan for the voyage in the Thames.
- (3) All Commercial Vessels normally operating only in the Thames shall prepare and maintain a generic Port Passage Plan, appropriate for use during the vessel's routine passage and operations in the Thames. All such Port Passage Plans may be inspected by the Harbourmaster.
- (4) Further to the requirements of Direction 8(3) above, all Commercial Vessels operating in the Thames and licensed under the High Speed Craft Code, shall have their generic Port Passage Plan approved by the Harbourmaster prior to commencing operations.
- (5) All vessels to which Direction 8(3) applies shall, as appropriate to their operational area and as part of their generic Port Passage Plan, establish through risk assessment, safe bridge clearances to be applied during the vessel's transits of the Thames bridges.

- (6) On Reporting Vessels ordinarily navigating outside the Thames, and not embarking a PLA authorised pilot, but navigating or intending to navigate within the Thames, (including those vessels declaring a valid PEC holder as navigating the vessel for the passage in the Thames), the Master or PEC holder shall, upon request from a VTS Centre, provide a Harbourmaster with relevant details of the Port Passage Plan.

Note: *Information for the preparation, updating and execution of Port Passage Plans may be found in:*

- *UK Admiralty Sailing Directions – Dover Strait Pilot*
Chapter 11 – Thames Estuary and/or
Chapter 15 – The Nore to Richmond
- *Appropriate Guides to Port Entry*
- *UK Admiralty List of Radio Signals, Volume 6*
- *World VTS Guide*
- *River Byelaws and Dangerous Substances in Bulk Byelaws*
- *PLA General Directions and Pilotage Directions*
- *Tidal information and local constraints*
- *Current PLA Notices to Mariners*
- *Voluntary Code of Practice for Tug Utilisation on the Thames*
- *Half-hourly VHF navigational information broadcasts from VTS Centres.*

9. MARKING OF STERNS OF PASSENGER VESSELS

- (1) Except as described in paragraph (2) of this Direction, every Passenger Vessel of Class IV, V and VI (as defined by current Merchant Shipping Regulations) and every vessel subject to the High Speed Craft Code, which regularly navigates upstream of the Denton Limit shall have, at or on her stern, an area of high visibility orange coating. So far as is practicable the coated area shall be:
- a) of between 3.75 and 4.5 square metres, i.e. 2.5 to 3.0 metres horizontally and a minimum of 1.5 metres vertically, evenly distributed either side of the vessel's centre line;
 - b) in a vertical or near vertical plane facing directly astern;
 - c) evenly illuminated from sunset to sunrise by suitably screened lights directed onto the reflective material;
 - d) equally effective in indicating the presence of the vessel in daylight, as it is when illuminated between sunset and sunrise; and
 - e) created using a coating proven in the marine environment, which is of a single base colour and does not include any text, pictures or other forms of illustration, and is also acceptable to the Maritime & Coastguard Agency.
- (2) Sailing vessels operating as Class V or Class VI Passenger Vessels are exempt from the requirements of this Direction when navigating below London Bridge with masts rigged.

10. DISPLAY OF A RED LIGHT BY SPECIFIED VESSELS

- (1) On all Specified Vessels there shall, when in the Thames during the hours of darkness and in restricted visibility, be displayed a fixed all round red light, which shall be above and clear of sidelights, at least 2 metres away from other navigation lights and positioned so as not to be confused with any other light.
- (2) The red light shall be exhibited:
 - a) from sunset to sunrise; and
 - b) from sunrise to sunset in restricted visibility and in all other circumstances when it is deemed necessary.
- (3) On all Specified Vessels there shall, when in the Thames during the hours of daylight, be conspicuously displayed the International Code of Signals flag 'B'.

11. LOCAL NAVIGATION

- (1) The Master of any vessel shall not permit any person to conduct Local Navigation on board his vessel unless such person is a Certificated Person.
- (2) This Direction shall not apply in emergency situations or to the navigation of Pleasure Vessels.

12. NAVIGATION RISK ASSESSMENT

- (1) Any vessels, which fall outside the scope of the PLA navigational safety management system, and intend to navigate in the Thames or vessels within the scope of the PLA navigational safety management system whose operation, in the opinion of the Harbourmaster, causes or is likely to cause a risk to navigational safety, shall, when required by the Harbourmaster, be subjected to a formal risk assessment before entering or operating further in the Thames or any part of the Thames specified.
- (2) Any intra-port passenger or freight service shall not be commenced or expanded in any way in the Thames without first notifying and subsequently obtaining the formal agreement of the Harbourmaster.
- (3) When a vessel is required to submit to a formal risk assessment as required by General Direction 12 (1), the Harbourmaster shall be provided with any information he may request in respect of, but not limited to; the vessel, its equipment, general condition, certification, organisational and ship management systems and crew competency, so that a full assessment of the risks associated with the navigation or operation of the vessel and any appropriate mitigation of such risks in the Thames can be made.

13. REPORTING VESSEL MOVEMENTS IN THE THAMES

- (1) Notice of the intention to navigate a Reporting Vessel in the Thames, shall be given to the Harbourmaster either 24 hours in advance, or not later than one hour before departure from the last port, berth or offshore operating area, whichever is the latter. This Direction shall not apply to Intra-port Vessels.
- (2) When an intended movement by a Reporting Vessel has been notified to the Harbourmaster, but that estimated movement time cannot be met, the appropriate VTS Centre shall be advised of the vessel's inability to meet that estimated movement time.
- (3) Prior to a Reporting Vessel's arrival at the outer limits, the intention to navigate in the Thames shall be reported to the Harbourmaster through the Gravesend VTS Centre (call sign: London VTS), and include confirmation that the vessel "complies with the navigational safety requirements of PLA General Directions".

This report will confirm:

- a) that the vessel's charts for the Thames and associated navigational publications are corrected and up to date;
- b) that the Master has prepared an appropriate Port Passage Plan for use during the vessel's passage in the Thames;
- c) that the vessel, if appropriate, is compliant with the requirements of the ISM Code;
- d) if the vessel is not subject to the ISM Code, that the vessel has no deficiencies or defects in respect of its manning, navigational equipment, propulsion or manoeuvring machinery;
- e) that arrangements have been made to provide appropriate mooring assistance for the vessel at its intended berth in the Thames;

and in addition shall confirm:

- f) the vessel's International Ship and Port Facility Security Code, security level; and
 - g) the number of persons on board.
- (4) **Permission to Proceed**
The appropriate VTS Centre is to be informed 10 minutes before the time at which a Reporting Vessel, which is berthed, moored or anchored within port limits, is to be navigated in the Thames. Permission to proceed must be requested and approved immediately before the vessel is navigated. If navigation has not commenced within 15 minutes of the initial advice, the appropriate VTS Centre is to be informed.
 - (5) When a Reporting Vessel is being navigated in the Thames or is to be so navigated, and passes a reporting point, the Harbourmaster at the appropriate VTS Centre shall be informed that the vessel is passing that reporting point.

Note: A full list of current reporting points are published on charts and in the relevant Admiralty List of Radio Signals, Notices to Mariners and the PLA Handbook of Tide Tables and Port Information.

- (6) The area between Bulls Point and Ware Point encompasses the London City Airport glide path. The following vessels shall not enter or navigate any part of Gallions Reach until authorised to do so by a Harbourmaster at London VTS at the TBNC:
 - a) Vessels, including pontoons with mobile cranes embarked, having an air draught of between 30 metres and 45 metres inclusive. Such vessels shall also inform London VTS at the TBNC of their intention to navigate in Gallions Reach when first reporting in accordance with sub-paragraph (4) above.
 - b) Vessels having an air draught greater than 45 metres, intending to navigate in Gallions Reach, shall provide London VTS at the TBNC with 24 hours notice of their planned arrival at the Margarettness Limit or, if outward-bound, their planned departure from their berth.
- (7) When any vessel is engaged in, or is to engage in, or has been engaged in fishing operations in the Thames, the Harbourmaster, at the appropriate VTS Centre, is to be provided with a:
 - a) report of the vessel's departure from its berth or mooring, or entry into the Thames; and
 - b) periodic update of the Master's subsequent intentions and movements whilst the vessel is proceeding to, from or engaged in fishing operations inside port limits.
- (8) All outward-bound Reporting Vessels shall, on passing Sea Reach No. 4 buoy reporting point or, if departing the Medway ports, on passing the wreck of the Richard Montgomery, declare the channels beyond Sea Reach No.1 buoy, which they intend to use for navigation.

Note: Additional reporting requirements are required for vessels intending to navigate the Knock John Channel and for vessels requiring to use the Princes Channel deep water route. See General Directions 14 and 15.

14. VESSEL TRAFFIC MANAGEMENT IN THE KNOCK JOHN CHANNEL

- (1) Reporting Vessels intending to navigate in the Knock John Channel shall advise London VTS of their:
 - a) agreed passage plan;
 - b) estimated time of arrival at the Knock John Channel; and
 - c) intentions in respect of vessel priority in the expected traffic conditions at the Knock John Channel and Fisherman's Gat;as follows:
 - i) Inward-bound vessels shall report at or before the Sunk Head Tower reporting point, or if using the Fisherman's Gat; on passing the

London Arrival/Departure arc or the NE Spit reporting points, giving estimated times of arrival for the Black Deep No. 7 and Knock John No. 1 buoys;

- ii) Inward-bound vessels are to report again when passing Black Deep No. 5 buoy or, if using the Fisherman's Gat: on passing the Outer Fisherman's buoy reporting points, giving an updated estimated time of arrival for the Knock John No. 1 buoy;
- iii) Outward-bound vessels shall report at Sea Reach No. 1 buoy or the Medway buoy reporting points, giving an estimated time of arrival for Knock John No. 4 buoy and Black Deep No.7 buoy, and advising of any intention to use the Fisherman's Gat; and
- iv) Outward-bound vessels are to report again when passing the South East Mouse buoy, giving an updated estimated time of arrival for the Black Deep No.7 buoy.

(2) Reporting Vessels navigating in the Knock John Channel between the Knock John No. 1 buoy and Knock John No. 4 buoy are subject to the following traffic management procedures:

- a) passing and overtaking within the buoyed channel may be permitted subject to the agreement of the Masters of the vessels involved except when an LNG vessel is involved. (See General Direction 25), however;
- b) one-way traffic working will normally be agreed between vessels or imposed by London VTS for traffic restricted by size or draught to navigating within the buoyed channel, and;
- c) vessels navigating with the tide should normally have priority; and
- d) smaller vessels not constrained to the buoyed channel may navigate outside the buoy line without restriction, but should ensure that other traffic and London VTS are informed. (See Note 2)

Notes:

- 1. *In the interests of navigational safety, London VTS will arbitrate in the event of conflict and may veto agreements on priority, passing or overtaking.*
- 2. *Water depths can vary considerably due to the mobility of sand banks. Frequent periodic surveys of depths are undertaken in the recognised buoyed channel. Main surveys are carried out less frequently outside the channel and mariners are reminded that, when navigating outside the buoyed channel, they should do so with appropriate caution and not rely on minimum under keel clearances.*

15. VESSEL TRAFFIC MANAGEMENT IN THE PRINCES CHANNEL

(1) All outward-bound Reporting Vessels intending to use the Princes Channel which, because of their draught, are constrained to the deep water route, shall inform London VTS of the intention to use the Princes Channel deep water route when declaring their intended outbound route at Sea Reach No. 4 or, for vessels departing the Medway ports, on passing the wreck of the Richard Montgomery, as required by General Direction 13(8).

- (2) All Vessels transiting the Princes Channel that are not constrained by their draught, when in the vicinity of vessels that are so constrained, shall pay particular attention to the requirements of Rule 9(a) of the International Collision Regulations by keeping as near to the outer limit of the Fairway, which lies on their starboard side as is safe and practicable. Outward-bound vessels that are not constrained by their draught should normally navigate in that part of the Princes Channel that lies to the south of the deep water route between the Princes Inner Buoy and Princes Mid Buoy. Should the traffic situation allow, vessels not constrained by their draught should declare their intentions to navigate in the deep water route, to London VTS.
- (3) Reporting Vessels navigating in the Princes Channel are subject to the following traffic management procedures:
- a) the deep water route is considered to be a two-way channel; passing and overtaking is normally permitted,
 - b) in extreme conditions of weather, tide or traffic density, one-way traffic working may be agreed between vessels or imposed by London VTS for traffic restricted by size or draught to navigating within the deep water route;
 - c) when one-way traffic working has been imposed, vessels navigating with the tide should normally have priority; and
 - d) LNG vessels are not permitted to navigate the Princes Channel.

Note: In the interests of navigational safety, London VTS will arbitrate in the event of conflict and may veto agreements on priority, passing or overtaking.

16. RESTRICTIONS OF MOVEMENT OF CERTAIN VESSELS

- (1) Any vessel, which is to the east of Sea Reach No. 1 Buoy and from which a harmful, polluting or dangerous substance is escaping or likely to escape, shall not be navigated to the west of Sea Reach No. 1 Buoy, except with the permission of a Harbourmaster and in accordance with his directions: provided that nothing in this Direction shall affect the exercise by the Secretary of State of any of the powers conferred on him by Schedule 3A of the Marine Safety Act 2003.
- (2) Any vessel of 13.7 metres or more in length, which has suffered damage, which affects or is likely to affect its seaworthiness or ability to navigate safely shall not:
- a) if the vessel is to the east of Sea Reach No. 1 Buoy, be navigated to the west of Sea Reach No. 1 Buoy, or;
 - b) if the vessel is to the west of Sea Reach No. 1 Buoy, be moved, except with the permission of a Harbourmaster and in accordance with his directions.

- (3) Any vessel of less than 13.7 metres in length which has suffered damage, which affects or is likely to affect its seaworthiness or ability to navigate safely shall not:
- a) if the vessel is to the east of Lower Hope Point, be navigated to the west of Lower Hope Point, or
 - b) if the vessel is to the west of Lower Hope Point, be moved, except with the permission of a Harbourmaster and in accordance with his directions.

17. RESTRICTIONS ON TOWING AND PUSHING

- (1) This Direction shall not apply in respect of a towing operation carried out over a distance of 0.5 nautical miles or less.
- (2) A power-driven vessel shall not:
- a) be engaged in towing a vessel when pushing another vessel ahead;
 - b) be engaged in pushing a vessel when towing another vessel alongside;
 - c) be engaged in pushing ahead more than one vessel at a time, except where:
 - i) the vessels being pushed are secured together as a composite unit, which is made fast to the pushing vessel; and
 - ii) any vessels pushed ahead abreast of one another do not together exceed 27 metres in width;
 - d) be engaged in towing alongside more than one vessel at a time, except where the towing vessel and the vessels being towed do not together exceed 24 metres in width.
- (3) No power-driven vessel shall be engaged in towing more than six vessels astern and, when towing two or more vessels astern:
- a) the distance between the stern of the towing vessel and the stern of the aftermost vessel in the tow shall not exceed 140 metres;
 - b) the number of vessels towed abreast of one another shall not exceed three;
 - c) the total of the widths of any vessels towed abreast of one another shall not exceed 24 metres.

18. PERSONS ON THE BRIDGE

- (1) There shall be, on the bridge of a power-driven vessel underway in the Thames, either the Master of the vessel or a member of the crew who is capable of taking charge of the vessel and, when a pilot is on board, is capable of understanding the pilot's directions.
- (2) When a PEC holder has conduct of a vessel within the London Pilotage District, a second person, who is competent to take charge of the vessel, shall be immediately available to take charge in an emergency.

19. EXCLUSION ZONES

No vessel shall, except in an emergency or with the prior permission of the Harbourmaster:

- a) enter any Exclusion Zone established in the Thames from time to time by the Harbourmaster; or
- b) approach within 60 metres of any oil or gas jetty in the Thames.

Note: Details of the limits and purpose of Exclusion Zones established in the Thames will normally be promulgated by the most appropriate means, including, but not limited to, Notices to Mariners and/or VHF navigation information broadcasts.

20. OFFSHORE WIND TURBINE TOWERS

No vessel shall, except in an emergency, for the purposes of construction or maintenance or with the prior permission of the Harbourmaster, approach within 50 metres of any wind turbine tower.

21. CONDUCT IN RESTRICTED VISIBILITY

A vessel of more than 40 metres in length overall which is not equipped with an operational radar installation shall not enter the Thames in conditions of Restricted Visibility, and shall not be navigated in the Thames in such conditions except to proceed to the nearest safe anchorage or berth.

22. REPORTING RESTRICTED VISIBILITY

Any vessel navigating or moored in Restricted Visibility observing that the extent of visibility at its location is not the distance broadcast by the relevant VTS Centre, or that the VTS Centre is not aware of Restricted Visibility at the vessel's location, should advise the VTS Centre of the current level of visibility at the vessel's location.

23. NAVIGATING, WAITING AND ANCHORING

- (1) No vessel shall navigate in a Fairway of the Thames or anchor in a Designated Anchorage in the Thames unless such Fairway or Designated Anchorage (as the case may be) is the Fairway or Designated Anchorage most suitable for a vessel of that draught and size. In particular, vessels with an operating draught of less than 6.0 metres shall not be navigated along the Black Deep, except with the express permission of the Harbourmaster.
- (2) Unless otherwise specifically authorised by a VTS Centre, Reporting Vessels are permitted to wait for a berth in the Thames only:
 - a) at a mooring allocated to the vessel by the Harbourmaster for that purpose, or
 - b) in a Designated Anchorage.

- (3) Except in an emergency, or with the permission of the Harbourmaster, vessels are not permitted to wait in a Designated Anchorage:
 - a) for longer than the period (if any) specified for anchoring in such an area by the Harbourmaster; and
 - b) where the vessel's dimensions would normally preclude it using that anchorage.
- (4) Vessels are not to be anchored in a Fairway, other than in an emergency or for the purpose of manoeuvring or with the prior approval of the Harbourmaster.

24. OVERTAKING MANOEUVRES

Overtaking manoeuvres shall only be undertaken so that the vessels involved do not prejudice their ability to navigate safely, particularly in areas of additional constraint such as river bends and bridges.

- Notes:
- 1. In addition, special provisions apply for overtaking:
 - a) within the Thames Barrier Control Zone, see General Direction 27; and
 - b) Specified Vessels, see General Direction 25.
 - 2. Particular care should be taken in conditions of Restricted Visibility where the consideration of safe speed may prolong the overtaking manoeuvre.

25. SEPARATION WITH RESPECT TO SPECIFIED VESSELS AND PROCEDURES FOR VESSELS CARRYING LIQUIFIED NATURAL GAS

- (1) When vessels are being navigated in the Thames, in the same direction, a separation of at least one half of a nautical mile shall be maintained between a Specified Vessel and any Reporting Vessel or any Passenger Vessel, except as required by paragraph (3) below. This separation may be reduced, for the purpose of overtaking, with the specific permission of the relevant VTS Centre and with the agreement of the Masters of all vessels involved.
- (2) When vessels are being navigated in the Thames, other than in the same direction, extreme caution shall be exercised when passing a Specified Vessel, which is proceeding in the opposite direction, or is berthed or in the act of berthing, taking into account the prevailing conditions.
- (3) When a vessel carrying LNG is being navigated in the Knock John channel between the Knock John No. 1 buoy and Knock John No. 4 buoy:
 - a) a separation of 1.0 nautical mile ahead and 0.5 nautical mile astern of the LNG vessel shall be maintained;
 - b) traffic will be restricted to one-way operating within the buoyed channel and vessels navigating with the tide will normally have priority; and

- c) passing and overtaking will only be permitted with the agreement of the Master of the LNG vessel and London VTS, and only if the passing or overtaking vessel remains outside the buoy line and it is safe to do so.

Note: See also General Direction 14.

- (4) Passage plans for LNG vessels, once agreed between the Pilot and Master, shall be submitted to London VTS in order that other traffic may be informed of the vessel's intended progress and traffic organisation measures undertaken where and when necessary.

26. VESSELS NAVIGATING BETWEEN SEA REACH No. 6 BUOY AND CROSSNESS

- (1) When a Reporting Vessel is navigated from one berth to another on the same side of the river between Sea Reach No. 6 Buoy and Crossness, it may proceed on that side of the river, which being outside the charted navigation channel, lies on the port side of the vessel providing that it is safe and practicable and the distance between the two berths is not more than 1.5 nautical miles.
- (2) Where conditions permit, inward-bound non-Commercial Vessels shall navigate to the south of, and clear of, the charted navigation channel, in the area between the East Blyth Buoy and Lower Hope Point.

27. NAVIGATION IN THE THAMES BARRIER CONTROL ZONE

- (1) All Reporting Vessels fitted with VHF radio shall inform the London VTS at the TBNC on VHF Channel 14 of their estimated time of arrival at the Thames Barrier or other destination within the Thames Barrier Control Zone when:
 - a) passing Crayfordness inward-bound or,
 - b) 10 minutes prior to leaving a berth, which lies between Crayfordness and Margaretness, inward-bound or,
 - c) when clearing Tower Bridge outward-bound or,
 - d) 10 minutes prior to leaving a berth or lock, between Tower Bridge and Blackwall Point, outward-bound.

The requirements of paragraph (1) above are in addition to the requirements of General Direction 13.

- (2) All vessels fitted with VHF radio:
 - a) leaving berths or locks within the Thames Barrier Control Zone, whether intending to transit through the Thames Barrier or not, shall contact London VTS at the TBNC and seek Permission to Proceed, as required by General Direction 13(4).
 - b) shall contact London VTS at the TBNC when entering the Thames Barrier Control Zone at Margaretness or Blackwall Point and report their position and intentions, and for allocation of a navigational span for the Thames Barrier.

- (3) Overtaking and Manoeuvring Restrictions
 - a) Vessels may only overtake another vessel or carry out manoeuvres in the Thames Barrier Control Zone with the express permission of the Harbourmaster at London VTS.
 - b) The position and speed of a vessel on completion of any manoeuvre conducted in accordance with sub-paragraph a) above is not to prejudice, in any way, its ability to navigate, with safety, through the Thames Barrier.

- (4) Navigation in Restricted Visibility
 - a) Vessels over 50 metres in length shall not navigate through the Thames Barrier during periods when visibility at the Thames Barrier is declared by the Harbourmaster to be less than 0.5 nautical mile.
 - b) Reporting Vessels of 50 metres or less in length shall not navigate through the Thames Barrier during periods when visibility at the Thames Barrier, is declared, by the Harbourmaster, to be less than 0.25 nautical mile.
 - c) Vessels subject to paragraphs (4) a) or b) above shall remain at their berths, anchor in a Designated Anchorage Area or anchor as directed by the appropriate VTS Centre, until such time as the Harbourmaster declares the visibility to be over 0.5 nautical mile.

- (5) Anchoring
 - a) Anchoring within 100 metres of the Thames Barrier is prohibited.
 - b) Using an anchor between the Woolwich Ferry Terminal and Hookness, outside the prohibited area in (5) a) above, other than in an emergency, may only be undertaken with the express permission of a Harbourmaster at London VTS at TBNC.

- (6) Vessels Under Sail

Vessels proceeding under sail between the Woolwich Ferry Terminal and Hookness shall keep to the starboard side of the Fairway. Vessels fitted with a working engine should use motor power to navigate through the Thames Barrier.

- (7) Small Vessels (under 13.7 metres in length)

All small vessels including yachts, dinghies, powerboats, sculls, rowing boats and canoes not fitted with VHF radio shall navigate through the span that lies furthest to the starboard side of the channel and is marked as open to navigation and having sufficient depth of water.

***Note:** Vessels are advised to contact the London VTS at the TBNC by telephone for allocation of a span.*

- (8) Navigational Spans

Under normal conditions navigation is through one span in each direction as indicated by the appropriate signals. Dependent upon circumstances it may be possible to make an alternative span available in either direction. Vessels wishing to use an alternative span shall make a request in good time to London VTS at the TBNC.

(9) Traffic Control Procedures

- a) Vessels passing through the Barrier must use only spans indicated as being available by the traffic signals and/or allocated by the London VTS. Information regarding spans available for navigation will be broadcast by London VTS in routine broadcasts.
- b) Upon receipt of any specific traffic control instructions, vessels are to set and maintain a listening watch on the appropriate VTS working channel. Vessels not fitted with VHF radio shall comply with the instructions displayed on the Thames Barrier notice boards.
- c) No vessel is to pass Margaretness inward-bound or Blackwall Point outward-bound during a Thames Barrier closure unless authorised by a Harbourmaster at London VTS at TBNC.
- d) When flashing red lights are activated on the Thames Barrier notice boards, vessels approaching the Thames Barrier are not to proceed beyond the notice board in the direction of the Thames Barrier.
- e) When flashing amber lights are activated on the Thames Barrier notice boards, vessels approaching the Thames Barrier are to contact London VTS or a PLA harbour service launch for further information.

- Notes**
- 1 *In addition to VHF radio, the London VTS communicates with the river traffic, through illuminated Thames Barrier Notice Boards, fitted with flashing red and amber warning lights, situated on the embankment at the western and eastern limits of the Control Zone*
 - 2 *Persons in charge of vessels navigating through the Thames Barrier are advised that at certain states of both flood and ebb tides, eddies caused by the presence of the structure may have an adverse effect. Effects are particularly marked for slow moving vessels including those being towed*

(10) Spans Closed to Navigation

Navigation between piers exhibiting red crosses or below the red lights and shapes prescribed in River Byelaw 29(1) is prohibited.

Note: *Supplementary information regarding Thames Barrier closure procedures, additional traffic control procedures, communications, Thames Barrier Notice Boards and navigation light signals, shapes and radar may be found in the Appendix to these Directions.*

28. LOOKOUTS ON VESSELS NAVIGATING ABOVE THE THAMES BARRIER

- (1) All vessels navigating above the Thames Barrier, including tugs pushing craft ahead and Class IV, V and VI Passenger Vessels, which, by virtue of their construction or trim, have limited visibility from the wheelhouse, shall have a lookout stationed in an appropriate position, maintaining a continuous and effective lookout, so as to cover the area of limited visibility; or have made suitable technical arrangements such that a continuous and effective lookout can be maintained in the area of limited visibility.

- (2) The lookout required by paragraph (1) above shall be:
 - a) suitably trained and experienced in lookout duties;
 - b) given clear instructions to report to the Master every matter or occurrence which could affect the safe navigation of the vessel, including sightings of vessels underway; and
 - c) if stationed outside the wheelhouse and remote from the helmsman: be provided with a telephone or radio communication link to the helmsman; and shall be stationed in such a position so as not to be distracted in his duties by lighting on the vessel, including strobe or similar lights.
- (3) Public announcements, commentaries, onboard noise or music shall not inhibit the ability of the Master or, where appropriate, that of a person acting as lookout to:
 - a) hear clearly and respond to sound signals and all internal and external communications, including VHF navigation information broadcasts; and
 - b) assess and appreciate fully the intentions of vessels in the immediate vicinity so that there will be no delay in taking or failure to take such action as may become necessary in compliance with the International Collision Regulations, in particular Rule 8 – Action to avoid collisions.
- (4) Except in an emergency, public announcements and commentaries shall not be made by the person having conduct of the vessel.

29. LIGHTS ON VESSELS NAVIGATING UPSTREAM OF CHERRY GARDEN PIER

- (1) On a vessel of 40 metres or more in length navigating upstream of Cherry Garden Pier, other than those vessels getting underway from a berth, mooring or anchorage downstream of London Bridge there shall be, between sunset and sunrise and at all times in Restricted Visibility, carried and exhibited one or more white lights of sufficient luminous intensity to illuminate the bow of the vessel so that it can be seen from a distance of at least one nautical mile in conditions of clear visibility.
- (2) The light shall be positioned and screened so as:
 - a) not to impair the ability of a lookout either in the wheelhouse or forward to see clearly;
 - b) not to be an inconvenience to any other vessel in the vicinity; and
 - c) not to be mistaken for any other light which the vessel is required to exhibit.

30. NAVIGATION BETWEEN CHERRY GARDEN PIER AND BELL LANE CREEK – SPECIAL SIGNAL LIGHTS

- (1) All Reporting Vessels navigating through bridges in the area between Cherry Garden Pier and Bell Lane Creek shall navigate through the arch fitted with the special signal light unit, except when otherwise directed or when prudent navigation would otherwise require.

- (2) All Reporting Vessels underway between Cherry Garden Pier and Bell Lane Creek shall carry on board an operational electronic keying device capable of activating the special signal lights which signify that one or more Reporting Vessels are navigating or about to navigate through the arch displaying the signal.
- (3) The keying device on a Reporting Vessel navigating or about to navigate between Cherry Garden Pier and Bell Lane Creek shall be activated when entering the area or when about to leave a berth, mooring or anchorage within the area. The keying device shall remain activated whenever the Reporting Vessel is underway within the area between Cherry Garden Pier and Bell Lane Creek.

Notes: 1. *This will cause the special signal lights on successive bridges to be illuminated as the vessel approaches each bridge and to be extinguished once the vessel has passed under the bridge.*

2. *The keying device must remain switched on in the area, regardless of which arch of a bridge is being navigated.*

- (4) When the special signal light is illuminated:
 - a) non-reporting vessels shall not impede the safe passage of a Reporting Vessel that has activated a special signal light on a bridge arch, whilst it is navigating that bridge arch.
 - b) when two or more Reporting Vessels are approaching an arch from opposite directions, the vessel navigating against the direction of the tidal stream shall ease speed, stop, or if conditions allow, and having informed a Harbourmaster in accordance with paragraph (7) below, use an alternative arch in compliance with the River Byelaws.
 - c) at or about high and low water, when it cannot be determined with certainty which Reporting Vessel approaching a bridge arch is navigating in the direction of the tidal steam, both vessels shall be navigated with extreme caution, until such time as they have safely passed each other.
- (5) To avoid the continuous activation of the special signal lights in the vicinity, the keying device is to be switched off when the Reporting Vessel is secured at a berth or moored to a buoy or anchored.
- (6) If, when complying with paragraph (2) above, the special signal light on an arch is not illuminated, London VTS at the TBNC is to be informed as soon as possible and the arch navigated with extreme caution. As far as is practicable, this Direction is to be complied with by other vessels.
- (7) The Master of a Reporting Vessel navigating through a bridge fitted with a special signal light is to inform London VTS at the TBNC if he intends to navigate through an arch other than that fitted with the special signal light unit.

Note: *The report to London VTS should be made at each bridge where a vessel is not navigating through the arch fitted with the special signal light in good time, so that other traffic can take appropriate action.*

- (8) Whenever a special signal light becomes unserviceable, London VTS will alert all vessels every 30 minutes via the routine VHF navigation information broadcasts. In such circumstances all vessels are, as far as is practicable, to continue to comply with this Direction.
- (9) This Direction shall not apply to Reporting Vessels bound to or from a berth between Tower Bridge and London Bridge that require the bascules of Tower Bridge to be opened.

Notes: 1. *In order to draw the attention of other river users to the presence of one or more Reporting Vessel(s), special signal lights are situated on both the upstream and downstream sides of those arches normally used by Reporting Vessels of all bridges between and including Tower and Wandsworth Bridges except the Millennium Footbridge.*

2. *Each special signal light consists of a high intensity white light, visible by day and by night, which is illuminated only when it has been activated by a keying device on board a Reporting Vessel, or by London VTS.*

The characteristics of the special signal lights are as follows:

- a) *when activated by a single Reporting Vessel – Isophase White 4 seconds (i.e. 2 seconds ON, 2 seconds OFF).*
- b) *when activated by an additional Reporting Vessel(s) in the same vicinity – Very Quick Flash (i.e. 90 flashes per minute).*

31. LARGE VESSEL TRANSITS OF TOWER BRIDGE

Any vessel intending to pass through Tower Bridge and which requires a bridge lift to do so, shall:

- a) include in its passage plan, and report to London VTS at Crayfordness inward-bound, the place at which the vessel can safely abort its approach to Tower Bridge and the action intended, should there be a mechanical or system failure or any other incident, which prevents the bridge from lifting;
- b) establish communications with Tower Bridge control, and confirm its estimated time of arrival at Tower Bridge at least 30 minutes before arrival, and advise whether the vessel:
 - i) will be swung before approaching the bridge; and/or
 - ii) has any special bridge lift requirements;
- c) in the event of any failure or incident, which prevents the bridge lifting, abort its passage at its predetermined abort point, reporting its action to London VTS;
- d) in any event, not proceed beyond the old Surrey Entrance (Hanover Hole) inward-bound or leave a berth above the bridge outward-bound, unless:

- i) a bridge lift booking has been confirmed and two-way communication on VHF channel 14 has been established with Tower Bridge control; and
- ii) the vessel has been cleared to proceed by London VTS.

32. NAVIGATION ABOVE TOWER BRIDGE - LIMITATIONS ON VESSELS TOWING

- (1) When Barges or vessels are to be towed in circumstances exceeding the limitations identified in paragraph (2) of this Direction, a formal risk assessment shall be undertaken as required by General Direction 12.
- (2) Unless a formal risk assessment has been undertaken and any agreed findings of that risk assessment implemented in full, the towing of Barges and vessels above Tower Bridge will be restricted as follows:
 - a) No vessel may tow astern or push, more than one rank of Barges and/or other vessels;
 - b) There shall be no more than 2 Barges or vessels in the rank;
 - c) No vessel shall tow alongside more than one Barge or other vessel at any one time;
 - d) If any Barge or vessel is more than 30 metres in length overall, a vessel shall only tow astern, tow alongside or push one Barge or other vessel at any one time;
 - e) Barges or other vessels of more than 50 metres in length overall shall not be towed or pushed above Tower Bridge; and
 - f) The total beam of any rank towed or pushed shall not exceed 15 metres, including that of the tug, when towing alongside.

Note: Any risk assessment undertaken in respect of this Direction will need to address the size, bollard pull and manoeuvring capabilities of the tugs (and towed vessel as appropriate) as well as tidal constraints and the training and experience of masters and crews.

33. REQUIREMENT FOR OPERATIONAL AIS

- (1) Where a vessel is required by international law or by PLA Byelaws to fit and operate AIS, the system shall be switched on at all times when the vessel is underway.
- (2) Vessels required to carry AIS under SOLAS V are to operate AIS when alongside in the Thames, except for security reasons, or for safety reasons when the berth requires the AIS unit to be switched off or to be operated on low power in the vicinity of that particular berth. Such vessels are to inform London VTS when they intend to switch off AIS.
- (3) Vessels required to carry Thames AIS under PLA Byelaws shall continue to operate Thames AIS when alongside for short periods, but should switch off Thames AIS when unmanned or out of service.

- (4) Vessels constrained by their draught shall transmit an appropriate AIS status.

Note: AIS installations are to be kept updated with the correct settings and particular care is to be taken to ensure that the correct vessel "status" is set and that vessel "heading" is accurately aligned. .

34. SPEED RESTRICTIONS

All vessels shall comply with the requirements of any Speed Restriction or Speed Reduction imposed by the Harbourmaster, subject to the requirements of navigational safety, the good practice of seamen and any constraints imposed by the vessel's size, position and/or safe manoeuvring speed.

Note: Speed Restrictions will normally be promulgated by the relevant VTS Centre and/or by Notice to Mariners.

35. COMPLIANCE WITH A VTS INSTRUCTION

All vessels shall comply with a VTS Instruction given by a VTS Centre, and any such VTS Instruction shall be construed as being a Special Direction given by the Harbourmaster.

THE COMMON SEAL of the
Port of London Authority was
affixed in my presence on the
** day of July 2009.

R D CRIGHTON
Secretary

APPENDIX

PROCEDURES IN THE THAMES BARRIER

CONTROL ZONE

1. INTRODUCTION

A permanent Control Zone, encompassing the Thames Barrier, is established between Margaretness and Blackwall Point. All vessels navigating within the Zone are subject to the requirements of current General Directions.

2. THAMES BARRIER CONSTRUCTION

The Thames Barrier consists of nine piers numbered 1 to 9 from north to south and ten spans lettered A to K from south to north (see Figures 1 & 2 below).

Spans B to G are open to navigation subject to the restrictions in current General Directions.

Spans C, D, E and F are 61m wide with a depth of 5.8m below Chart Datum.

Spans B and G are 31.5m wide with a depth of 1.2m below Chart Datum and have depth boards on Piers 3 and 9.

Spans A, H, J and K are permanently closed to navigation.

Under normal circumstances, and subject to the requirements of partial closures, the northern spans E, F and G are used for inward bound traffic and the southern spans B, C, and D are used for outward-bound traffic.

Note: *D span may be used by large inward bound vessels.*

Figure 1

View Looking Westwards / Upstream

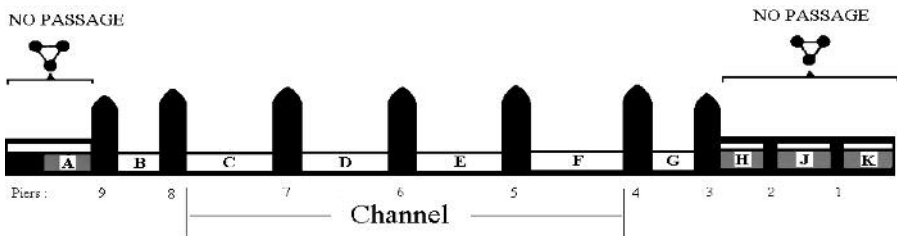
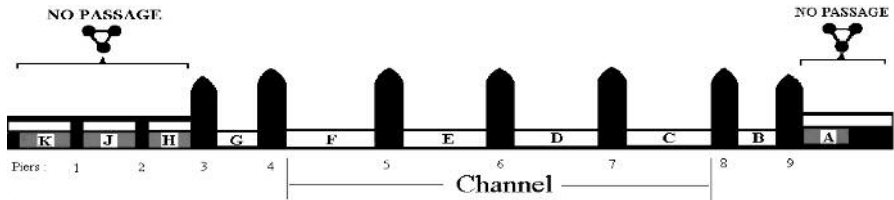


Figure 2

View Looking Eastwards / Downstream



3. NAVIGATION LIGHT SIGNALS AND SHAPES

Light Signals

Each navigational span of the Barrier has an array of traffic signals on the ends of the adjacent piers to indicate the spans open to navigation and those that are closed. The light signals will be displayed both by day and by night. Spans are open only to traffic in a single direction at any one time.

Spans Open to Navigation

Green Arrows will be exhibited from the ends of piers either side of the span(s) open to navigation. The arrows point inwards towards the span open to navigation from a particular direction.

Spans Closed to Navigation

Red Crosses will be exhibited from the ends of the piers either side of span(s) closed to navigation from one or both directions.

Spans Permanently Closed to Navigation

Span A to the south and spans H, J and K to the north are permanently closed to navigation and display at their centres the signals prescribed in the River Byelaws for closed bridge arches, namely:

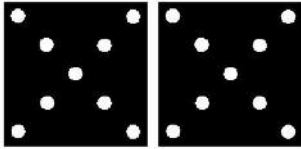
By day, three red discs 0.6m in diameter at the points of an equilateral triangle, with the apex downward and the base horizontal.

By night, three red lights in similar positions to the discs displayed by day.

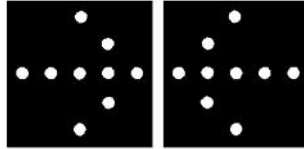
Figure 3

Illuminated Signals on Piers

Red Crosses - Span Closed



Green Arrows - Span Open



Fog Lights

High intensity fixed white lights are situated at each end of piers 4, 5, 6, 7 and 8 and are operated in conjunction with the green arrows in reduced visibility. The lights may be switched on or off or the intensity varied by the Thames Barrier Navigation Centre (London VTS) on request.

4. RACON BEACONS

Radar Beacons (RACONS) are installed on the upstream and downstream ends of piers 4, 5, 6, 7 and 8 of the Thames Barrier and are used to assist mariners in identifying and passing through the navigable spans when visibility is reduced.

The RACONS on the pier either side of the span or spans open to navigation will be switched on by London VTS whenever the visibility in Woolwich Reach is reduced to 1 nautical mile or less, or upon request.

Vessels may also have the RACONS activated for test purposes or for training by request. Information relating to RACON operation will be included in routine broadcasts by London VTS on VHF Channel 14.

Vessels experiencing radar interference suspected of being due to RACON operation are to inform the London VTS immediately.

Mariners are warned that notwithstanding the presence of RACON beacons at the Thames Barrier, they should comply with the requirements of current General Directions, in respect of navigation in restricted visibility in the Thames Barrier Control Zone.

5. TYPES OF BARRIER CLOSURE

The Thames Barrier will be closed under the following circumstances:

- i) **Emergency (Full) Closures** - For flood prevention in the event of a surge tide warning and other emergencies.

In normal circumstances, notice of a flood protection closure will be given at approximately 1 hour after LW North Woolwich, 2 hours before the commencement of gate closure.

- ii) **Test (Full) Closures** - For the purpose of testing the Barrier machinery and carrying out experiments to improve closure methods.

Closures will be promulgated by Notice to Mariners published every six months. Such closures may occur at any state of the tide. Mariners, owners, and agents are advised to retain these Notices to Mariners, as no further notice will be given until 24 hours before closure.

- iii) **Partial Closures** - For maintenance, other works and training. On occasions it is necessary to close individual spans for maintenance and training. A single floodgate can be in the defence or maintenance position for a prolonged period of time. The span closed signals will be displayed and vessels are prohibited from approaching these spans.

- Notes:**
1. 5. i) and ii) require total closure of the Barrier, 5iii) a partial closure.
 2. When a gate is in the defence position next to a span open to navigation, mariners are advised that variations to the normal current direction and velocity may be experienced.

6. **ADDITIONAL TRAFFIC CONTROL PROCEDURES DURING A FULL BARRIER CLOSURE**

Vessels programmed to transit the Barrier during a full closure will be subject to the following Traffic Control Procedures:

- a) Inward bound seagoing vessels proceeding to berths above the Barrier will be instructed to anchor in a Designated Anchorage by London VTS.
- b) Outward bound seagoing vessels from berths upstream of the Barrier will be directed to remain on the berth by London VTS possibly via the berth operator or agent.
- c) Non-seagoing vessels will be directed to appropriate moorings and berths.
- d) The approximate time of the Barrier re-opening will normally be known at the same time as closure commences and will be passed to vessels directed to wait.

Traffic for Tilbury Lock, Barking Creek, Dartford Creek, and Benfleet Creek, will be similarly directed as in a) to c). Individual instructions will be passed by London VTS as appropriate.

Notes