

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	8
5	Use of VHF Radio in Collision Avoidance	10
6	Machinery and Equipment condition and readiness, Oily Water Separators and Bilge Systems	10
7	Automatic Steering and Backup Steering Gear	10
8	Port Passage Plans	11
9	Marking of sterns of Class IV, Class V and Class VI Passenger Vessels	12
10	Display of a Red Light by Specified Vessels	12
11	Local Navigation	12
12	Navigation Risk Assessment	13
13	Reporting Vessel Movements in the Thames	13
14	Vessel Traffic Management in the Knock John Channel	15
15	Restrictions of Movement of Certain Vessels	16
16	Restrictions on Towing and Pushing	16
17	Persons on the Bridge	17
18	Exclusion Zones	17
19	Offshore Wind Turbine Towers	18
20	Conduct in Restricted Visibility	18
21	Approach Channels, Waiting and Anchoring	18
22	Overtaking Manoeuvres	19
23	Separation with respect to Specified Vessels and Procedures for Vessels carrying Liquefied Natural Gas	19
24	Vessels navigating between Sea Reach No.6 Buoy and Crossness	20
25	Navigation in the Thames Barrier Control Zone	20
26	Lookouts on Vessels navigating above the Thames Barrier	22

27	Lights on Vessels Navigating upstream of Cherry Garden Pier	23
28	Navigation between Cherry Garden Pier and Bell Lane Creek – Special Signal Lights	24
29	Large Vessel Transits of Tower Bridge	26
30	Navigating above Tower Bridge – Limitations on Vessels Towing	26
31	Requirement for Operational AIS	27
	Schedule to the General Directions for Navigation in the Port of London Authority	28

APPENDIX

	<i>Notes to General Direction</i>	29
--	-----------------------------------	----

GENERAL DIRECTIONS FOR NAVIGATION IN THE PORT OF LONDON 2006

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 2003 (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 (2003).

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

July 2006

General Directions for Navigation in the Port of London 2006

1. COMMENCEMENT

These Directions shall come into force on 1 September 2006, on which date the General Directions for Navigation in the Port of London 2003 (as amended) are revoked.

2. SHORT TITLE

These Directions may be cited as the PLA General Directions 2006.

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) "Approach Channel" means one or more of the following:
The Black Deep, The Fisherman's Gat,
The Princes Channel, The Middle Deep and West Swin Channels,
The Barrow Deep, The Mouse Channel;
- d) "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;
- e) "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 1.0 nautical miles 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.*

- f) "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;
- g) "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.*

- h) "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;
- i) "Clearance" means authorisation by a Harbourmaster to navigate as proposed by a vessel;
- j) "Denton Limit" means a line drawn north/south through the eastern extremity of Denton Wharf;
- k) "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;
- l) "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;
- m) "Fairway" means a navigable channel or Narrow Channel, which is a regular course or track of shipping;
- n) "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;

- o) “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 in charge of PLA VTS Centres;
- p) “IMO” means 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) “LNG” means liquefied natural gas;
- t) “LPG” means liquefied petroleum gas;
- u) “Local Navigation” means Shifting Pilotage, Voluntary Movement or Berthing Assistance;
- v) “Margarettness Limit” means a line drawn across the Thames from the Margarettness Light in a direction 334° (T);
- w) “Master” includes every person (except a pilot) having command or charge of a ship and, in relation to a fishing vessel, means the skipper”;
- x) “Narrow Channel” means the following areas within the Thames:
 - i) The Fisherman’s Gat;
 - ii) The Princes Channel from the Princes Approach Buoy 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;
 - vi) The Thames to the west of Sea Reach No. 1 Buoy;
- y) “Notices to Mariners” means Notices to Mariners issued by the PLA;
- z) “Passenger Boat” means a vessel used for carrying passengers;
- aa) “Passenger Vessel” has the same meaning as the Merchant Shipping (Survey and Certification) Regulations 1995;

- bb) "PEC" means Pilotage Exemption Certificate granted under Section 8 of the Pilotage Act 1987;
- cc) "PLA" means Port of London Authority;
- dd) "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 or any similar flagstate administration notice issued pursuant to the associated IMO Conventions on Standards of Training, Certification and Watchkeeping for Seafarers (STCW);
- ee) "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;
- ff) "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.

- gg) "River Byelaws" means the Port of London River Byelaws 1978 (as amended);
- hh) "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;

- ii) "SOLAS" means the International Convention for the Safety of Life at Sea;
- jj) "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.

- kk) "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);
 - iv) Toxic and corrosive substances in bulk or being non-gas free following discharge of these cargoes (Classes 6.1 and 8.0);
- ll) "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;
- mm) "Thames Barrier" means the flood prevention barrier, which crosses the Thames in Woolwich Reach;
- nn) "Thames Barrier Control Zone" means the area of the Thames between the Margaretness Limit and a line drawn due north from Blackwall Point;
- oo) "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;
- pp) "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 VTS control point through which a Harbourmaster's instructions and advice are issued to Masters of vessels by VHF radio and to which vessels report;
- qq) "Waypoint" means a position designated by a Harbourmaster as a reporting point (also sometimes referred to as such) and published on charts and in the relevant volume of Admiralty List of Radio Signals, the PLA Handbook of Tide Tables and Port Information and Notices to Mariners.

- (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) recreational narrow boats greater than 13.7m in length overall navigating between Brentford and Teddington; and
 - b) other leisure 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.

- (2) A recreational narrow boat excepted under Direction 4. (1) a) above, shall call London VTS by telephone and report their estimated time of departure from the point of departure and estimated time of arrival at their destination, and again report when they have reached their 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 tideway;
 - 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 tideway, 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 25), 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 words 'SPECIFIED VESSEL' 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 under way 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.

7. AUTOMATIC STEERING AND BACKUP STEERING GEAR

- (1) When use is being made of an automatic pilot steering device, a qualified helmsman is to be available without delay 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) On Reporting Vessels ordinarily navigating outside the Thames, prior to navigating in the Thames, there shall be a prepared 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) On all commercial vessels normally operating only in the Thames, there shall be prepared a generic Port Passage Plan, appropriate for use during the vessel's routine passage and operations in the Thames. All such Port Passage Plans shall be submitted to the Harbourmaster for approval, prior to use.
- (4) 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.
- (5) 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*
- *Code of Practice for Ship Towing Operations on the Thames 2005*
- *Half-hourly VHF navigational information broadcasts from VTS Centres.*

9. MARKING OF STERNS OF CLASS IV, CLASS V AND CLASS VI 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), which regularly navigates upstream of Gravesend shall have, at or on her stern, an area of high visibility reflective material. So far as is practicable the 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; and
 - c) evenly illuminated from sunset to sunrise by suitably screened lights directed onto the reflective material.
- (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;
 - 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

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 or is a member of the vessel's crew, holding an internationally recognised and current navigational certificate.

12. NAVIGATION RISK ASSESSMENT

- (1) Any vessels, which fall outside the scope of the PLA navigational safety management system, and intending 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) 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 later.
- (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 (callsign: 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 crew, 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) 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 Waypoint, the Harbourmaster at the appropriate VTS Centre shall be informed that the vessel is passing that Waypoint.

Note: *A full list of current Waypoints 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 the Woolwich VTS Centre:
 - a) Vessels, including pontoons with mobile cranes embarked, having an air draft of between 30 metres and 45 metres inclusive. Such vessels shall inform the Woolwich VTS Centre of their intention to navigate in Gallions Reach when first reporting in accordance with sub-paragraph (4) above.
 - b) Vessels having an air draft greater than 45 metres, intending to navigate in Gallions Reach, shall provide the Woolwich VTS Centre with 24 hours notice of their planned arrival at the Margaretness 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.

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: at or before Black Deep No. 3 buoy, or if using the Fisherman's Gat; on passing the South Knock buoy or the NE Spit Waypoints, 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. 7 buoy, giving an updated estimated time of arrival for the Knock John No. 1 buoy;
- iii) Outward-bound vessels: at or before Sea Reach No. 1 buoy or the Medway buoy Waypoints, giving an estimated time of arrival for Knock John No. 4 buoy, and advising of any intention to use the Fisherman's Gat;
- iv) Outward-bound vessels are to report again when passing Knock John No. 7 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) one way traffic working will normally be imposed for traffic restricted by size or draught to navigating within the buoyed channel; and
- b) vessels navigating with the tide will normally have right of way; however,
- c) passing and overtaking may be permitted subject to the agreement of the Masters of the vessels involved except when an LNG vessel is involved. (See General Direction 23)
- 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 may veto passing or overtaking agreements and will arbitrate in the event of conflict.*
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. 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 Section 137 of the Merchant Shipping Act 1995.
- (2) Any vessel of 12 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 12 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.

16. RESTRICTIONS ON TOWING AND PUSHING

- (1) This Direction shall not apply in respect of a towing operation carried out over a distance of half a nautical mile 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 made fast to one another and 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 vessels 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.

17. 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.

18. 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;
- 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.

19. 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.

20. 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.

21. APPROACH CHANNELS, WAITING AND ANCHORING

- (1) No vessel shall be navigated in an Approach Channel of the Thames or be anchored in a Designated Anchorage in the Thames unless such Approach Channel or Designated Anchorage (as the case may be) is the Approach Channel 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, 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.

22. 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 25; and*
- b) Specified Vessels, see General Direction 23.*

2. *Particular care should be taken in conditions of Restricted Visibility where the consideration of safe speed may prolong the overtaking manoeuvre.*

23. 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 Harbourmaster.
- (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 one nautical mile ahead and half a 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 right of way; 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.
- (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.

24. 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.

25. NAVIGATION IN THE THAMES BARRIER CONTROL ZONE

- (1) All vessels fitted with VHF radio shall inform the Woolwich VTS Centre 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) one hour prior to leaving a berth, which lies between Crayfordness and Margaretness, inward bound or,
 - c) when clearing Tower Bridge outward bound or,
 - d) one hour 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 Directions 4 and 13.

- (2) All vessels fitted with VHF radio and bound from berths or locks within the Thames Barrier Control Zone, whether intending to transit through the Thames Barrier or not, shall contact the Woolwich VTS Centre 30 minutes before departure to obtain information on expected traffic movement and shall maintain a listening watch thereafter.
- (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 the Woolwich VTS Centre.
 - 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, having used all available information, to be less than 0.5 nautical miles.
 - 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 a Harbourmaster, to be less than 0.25 nautical miles.
 - 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 miles.
- (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 the Woolwich VTS Centre.
- (6) Vessels Under Sail
- Vessels proceeding under sail between the Woolwich Ferry Terminal and Hookness shall keep to the starboard side of the Fairway. Whenever possible such vessels shall take in their sails and 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:
- a) comply with any signals exhibited at the Thames Barrier notice boards at False or Barking Point and Blackwall Point.
 - b) navigate inwards through the northern most span and outwards through the southern most span open to navigation and having sufficient depth of water.
- (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 the Woolwich VTS Centre.

(9) Traffic Control Procedures

- a) Vessels programmed to transit the Thames Barrier shall during a closure, be subject to the traffic control procedures identified in the current Notice to Mariners for Procedures in the Thames Barrier Control Zone.
- b) Upon receipt of any specific traffic instructions, associated with the above procedures, 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 the Woolwich VTS Centre.
- 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. Further information may be obtained from the Woolwich VTS Centre or a PLA harbour service launch.
- e) When flashing amber lights are activated on the Thames Barrier notice boards, vessels approaching the Thames Barrier are to contact the Woolwich VTS Centre or a PLA harbour service launch for further information.

(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 aids are published from time to time as a Permanent Notice to Mariners. The current Notice is reprinted as a note in the Appendix to these Directions.

26. 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 hear clearly and respond to sound signals and all internal and external communications, including VHF navigation information broadcasts.
- (4) Except in an emergency, public announcements and commentaries shall not be made by the person navigating the vessel.

27. 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.

28. 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, the Woolwich VTS Centre 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 Woolwich VTS 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, the Woolwich VTS Centre 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 the Woolwich VTS Centre.

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).

29. 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.

30. 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.

31. REQUIREMENT FOR OPERATIONAL AIS

Where a vessel is required by international law or by River Byelaws to fit and operate AIS, the system shall be switched on at all times when the vessel is underway or 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. Vessels are to inform London VTS when they intend or require to switch off AIS.

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 both when underway and when alongside.

THE COMMON SEAL of the
Port of London Authority was
affixed in my presence on the
25th day of July 2006.

D CARTLIDGE
Secretary

**SCHEDULE TO THE
GENERAL DIRECTIONS FOR NAVIGATION
IN THE PORT OF LONDON
2006**

**ADMINISTRATION AND USE OF
LOCAL NAVIGATION CERTIFICATES**

For the purposes of promulgation, this Schedule is published as a separate document.

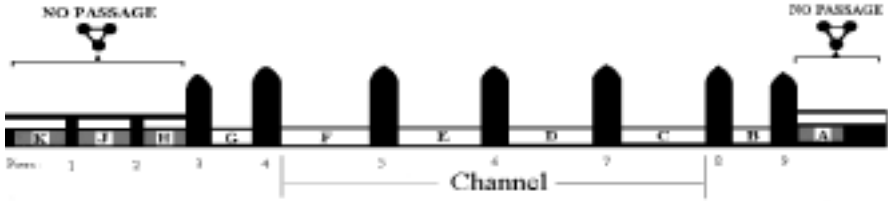
Copies may be obtained, free of charge, from:

Pilotage Administration Office
Port of London Authority
London River House
Royal Pier Road
Gravesend
Kent DA12 2BG.

Tel: +44(0) 1474 562 320

Fax: +44(0) 1474 562378

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 5i) 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. TRAFFIC / NAVIGATION PROCEDURES IN THE BARRIER CONTROL ZONE

VHF Radio

Navigation within the Zone is regulated by the Thames Barrier Navigation Centre which keeps the area between Crossness and Greenwich under radar surveillance and maintains constant watch on VHF Channel 14 (Call sign: London VTS). Under certain circumstances instructions may be relayed by London VTS at Gravesend (Channels 69 or 68).

To comply with the requirements of current General Directions, all vessels fitted with VHF radio intending to navigate in the Thames Barrier Control Zone must inform London VTS on VHF Channel 14 of their ETA at the Thames Barrier or other destination when:

- a) passing Crayfordness inward bound or,
- b) one hour prior to leaving a berth, which lies between Crayfordness and Margaretness, inward bound and again 10 minutes before departure or,
- c) when clearing Tower Bridge outward bound or,
- d) one hour prior to leaving a berth or lock, between Tower Bridge and Blackwall Point, outward bound and again 10 minutes before departure.

All vessels fitted with VHF radio and bound from berths or locks within the Thames Barrier Control Zone, whether intending to transit through the Thames Barrier or not, must contact London VTS 30 minutes before departure to obtain information on expected traffic movement. These vessels are to maintain a listening watch on VHF Channel 14 and obtain Clearance to proceed 10 minutes before leaving a berth within the Zone.

Note: Upon receipt of any associated traffic control instructions, vessels are to set and maintain a listening watch on VHF Channel 69, 14 or 68 as appropriate. Vessels not fitted with VHF radio must comply with the instructions displayed on the Thames Barrier Notice Boards.

Thames Barrier Notice Boards

In addition to VHF radio, the London VTS communicates with 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.

When either the red or amber lights are flashing, the Notice Board will display a message directing vessels to call the London VTS on VHF Channel 14 for more information and instructions. (See Notes 2 & 3 below).

Navigation through the Barrier Control Zone

Navigation Spans

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

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.

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.

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

Overtaking and Manoeuvring Restrictions

Any vessel wishing to overtake another vessel, or any vessel wishing to carry out manoeuvres in the Thames Barrier Control Zone, may only do so with the express permission of the Harbourmaster at the London VTS.

Vessels overtaking in accordance with the paragraph above must ensure that their positions and speeds on completion of the manoeuvre do not prejudice, in any way, their ability to subsequently navigate, with safety, through the Thames Barrier.

Navigation in Restricted Visibility

No vessel over 50 metres in length shall navigate through the Thames Barrier during periods when visibility at the Thames Barrier is declared by the Thames Barrier Navigation Centre, having used all available information, to be less than 0.5 nautical miles.

No Reporting Vessel shall navigate through the Thames Barrier during periods when visibility at the Thames Barrier, is declared, by the London VTS, to be less than 0.25 nautical miles.

Any vessel subject to the above restrictions must remain at her berth, anchor in a Designated Anchorage Area or anchor as directed by the appropriate PLA VTS Centre, until such time as visibility improves to over 0.5 nautical miles.

Anchoring

Anchoring within 100 metres of the Thames Barrier is prohibited. Any vessel wishing to use an anchor (more than 100m from the Barrier) between the Woolwich Ferry Terminal and Hookness, may only do so in an emergency or with the express permission of the Harbourmaster at the Thames Barrier Navigation Centre. No vessel shall remain at anchor in this area.

Vessels Under Sail

Vessels proceeding under sail between the Woolwich Ferry Terminal and Hookness shall keep to the starboard side of the Fairway and are not to impede any other vessels. Whenever possible, such vessels should take in their sails and use motor power to navigate through the Thames Barrier.

Small Vessels (under 20 metres in length)

All small vessels and vessels such as yachts, dinghies, power boats, sculls, rowing boats and canoes not fitted with VHF radio are to:

- a) comply with any signals exhibited on the Thames Barrier Notice Boards; and
- b) navigate inwards through the northern most span and outwards through the southern most span open to navigation and having sufficient depth of water.

Notes: 1. *No vessel is to pass Margaretness inward bound or Blackwall Point outward bound during a Thames Barrier closure unless authorised by the London VTS.*

2. *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. Further information may be obtained from London VTS or a PLA Harbour Service Launch.*

3. *When flashing amber lights are activated on the Thames Barrier Notice Boards, vessels approaching the Thames Barrier are to contact the London VTS or a PLA Harbour Service Launch for further information.*

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.
- e) Vessels not fitted with VHF radio must comply with the instructions displayed on the Thames Barrier Notice Boards.

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.

Note: *This Notice was latterly published as Permanent Notice to Mariners P16 of 2002.*

Notes