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Dear captain;
Good Day

KPBI that The Chinese Ministry of Transport revised regulations on Navigation Safety of Yangtze River and Huangpu River recently which came into effect on 15th January 2018. These regulations were promulgated in accordance with the Maritime Safety Law of the People's Republic of China and other relevant laws and regulations to maintain the traffic order on Yangtze River and Huangpu River so as to improve the navigational environment. These regulations cover routing requirements on navigation, berthing, reporting, giving-way, etc.

You are requested to confirm receipt , discuss the contents in the next consolidated meeting on board and keep a copy in the DA-11 file .

Best Regards,

Capt. M.A.Abrishami

Accident Investigation / Fleet Inspection Expert Department of Maritime Affairs ROD Ship Management Co.

Dept. Tel No. : +98-21-26100357

Dept. Fax No.: +98-21-26100356

Direct Tel No.: +98-21-23843207

Please reply to dma@sealeaders.com

(Note: This e-mail has been sent as BCC <blind carbon copy to : All R.O.D.-SMC Vessels, to eliminate the lengthy list that would result if this e-mail is printed)

Regulations on Navigation Safety Administration of Huangpu River in Shanghai

(In case there is any discrepancy between the Chinese edition and the English edition, the Chinese edition shall prevail)

(本《规定》英文版本仅供参考，中文版与英文版内容如有差异，以中文版为准)

Chapter I General

Article 1 The regulations are promulgated in accordance with the *Maritime Traffic Safety Law of the People's Republic of China* and other relevant laws, regulations for the purpose of maintaining the water traffic order, improving the navigation environment in the Huangpu River and ensuring the safety of vessels, installations, human life and property.

Article 2 The Huangpu River mentioned in the regulations refers to the waters within the areas between the joint line linking Wusongkou Lighthouse and Pudong Terminus (downstream borderline of the Huangpu River) and the joint line linking the upstream borderline of Minhang Power Plant and the upper river mouth of Juchao Gang.

Article 3 Traffic Separation Scheme (TSS) is implemented in the Huangpu River for inbound and outbound vessels.

Article 4 The regulations shall apply to vessels and installations which are engaged in navigating, berthing, operating or other activities that would influence the navigation safety in the Huangpu River.

Article 5 Shanghai Maritime Safety Administration of People's Republic of China (hereinafter referred as Shanghai MSA) is the competent authority for the regulations.

Article 6 Yachts, cruise boats, sport boats, other vessels and units engaged in related recreational and sport activities shall observe the following regulations:

1. Outboard advertisements installed on vessels shall not affect the exhibition of ship's lights and shapes.
2. Yachts must have Certificate of Nationality of Ship and Seaworthiness Certificate;
3. Cruise boat management companies shall establish safety management systems and emergency plans;
4. Yacht clubs shall file the record in accordance with regulations.

Yachts, cruise boats, sport boats, other vessels and units engaged in related recreational and sport activities shall observe other specific regulations issued by the competent authority.

Article 7 The following vessels are prohibited from navigating, berthing and operating in Huangpu River:

1. vessels carrying cargoes listed in the *Catalogue of Inland Waterway Embargo Dangerous Chemicals*;
2. small power-driven vessels without names and numbers, vessels without certificates and vessels without port of registry.

Article 8 In addition to emergency circumstances, vessels are prohibited from sounding the

signal in the area between Yangpu Bridge and Xupu Bridge.

Chapter II Navigation

Article 9 The Fairway of the Huangpu River is composed of the upstream fairway and downstream fairway for two-way navigation.

The Channel Separation Line is a center line of the Puxi-side base line and Pudong-side base line (see Appendix 1). The upstream fairway is navigable waters within the Channel Separation Line and Puxi shoreline, while the downstream fairway is navigable waters within the Channel Separation Line and Pudong shoreline, excluding anchorages and precautionary areas.

Article 10 A small vessel proceeding along the fairway shall keep as near to the outer limit of the fairway which lies on her starboard side so is safe and practicable.

Vessels conducting search and rescue mission and official ships in the line of duty are not confined by the preceding provision of this article.

Article 11 Vessels intending to navigate in the Huangpu River shall test the engine, rudder, communication and emergency equipment to ensure the above mentioned equipment in good technical condition.

Article 12 Vessels intending to enter the Huangpu River shall check the maximum height above water, tide height, high-voltage cables height and vertical clearance of river-spanning bridges, ensuring enough navigation clearance.

The total length and towing scale of vessels navigating in the Huangpu River shall be in compliance with *Technical Requirements for Navigation Safety of Huangpu River* (see Appendix 2).

Unless conducting emergency rescue, vessels other than tugs shall not engage in towing operations.

Article 13 When a large vessel is navigating, a crewmember shall be assigned at the bow for proper look-out and anchors shall be stand-by; navigating through the water of heavy traffic density of cruise boats, the large vessel shall adopt special safety precautions when it is necessary.

Article 14 Watch-keeping crewmembers are forbidden to consume alcohol within 4 hours before the watch keeping and during the watch-keeping period. Crewmembers must ensure a limit of not greater than 0.05% blood alcohol level (BAC) or 0.25mg/L alcohol in the breath during the watch keeping.

Article 15 The speed of a vessel underway shall not exceed 8 knots per hour.

Vessels navigating through the water of heavy traffic density of cruise boats shall not slow down to bare steerageway.

Vessels conducting search and rescue mission and official ships in the line of duty are not confined by the preceding provisions of this article.

Article 16 Vessels shall navigate with a moderate speed when the visibility is less than

1000 meters in Huangpu River.

Navigation of large vessels, cruise boats, yachts and ferry boats shall be prohibited when the visibility is less than 500 meters in the Huangpu River.

Navigation of all vessels shall be prohibited when the visibility is less than 100 meters in the Huangpu River.

Article 17 Vessels shall navigate or operate in the Huangpu River in accordance with approved wind resistance levels. Passenger ships not verifying wind resistance levels are prohibited from navigating and operating when the wind force in Beaufort scale is above 6.

Article 18 A vessel shall overtake on the port side of other vessels as is safe and practicable.

Vessels shall avoid navigating abreast for a long time.

Towing fleets and large vessels are prohibited from overtaking within following waters:

1. from Wusongkou Lighthouse to Light-buoy No.106;
2. from Light-buoy No.110 to Dongnen Ferry Route;
3. from Mooring-buoy No.B8 to Jinding Ferry Route;
4. Lujiazui Bend (within waters 500-meter on both sides of Suzhou River);
5. Dongjiadu Bend (within waters 500-meter on both sides of Zhangjiabang River);
6. Longhua Bend (within waters 500-meter on both sides of Longhua Gang River);
7. Manlizui Bend (within waters 500-meter on both sides of Changqiao Gang River);
8. waters of the Xupu Bridge (within waters 500-meter on both sides of Xupu Bridge);
9. Zha Gang Bend (within waters 500-meter on both sides of Zha Gang River);
10. 500-meter downstream waters from Fengpu Bridge and 500-meter upstream waters from No.2 Minpu Bridge.
11. waters of No.3 Minpu Bridge (within 500-meter downstream waters of No.3 Minpu Bridge to the joint line linking the upstream borderline of Minhang Power Plant and the upper corner of Juchao Quay).

Article 19 Vessels crossing the fairway shall navigate with particular caution and cross as nearly as practicable at right angles to the general direction of traffic flow.

When crossing the fairway, vessels shall pass the stern of other vessels as far as practicable, and keep enough safe distance from them.

Article 20 When berthing or unberthing, vessels shall turn around in the turning basins unless they can turn around in the wharf apron waters.

Any vessel shall exhibit appropriate turning signals 10 minutes before the start of her turning around and notify the movement through VHF06.

Vessels or fleets shall navigate with caution when turning around. When finding other large vessels or fleets approaching within a distance of 1,200 meters downstream or 600 meters upstream, no vessel or fleet shall turning around until the approaching vessels or fleets have passed and cleared.

Vessels shall keep clear of a large vessel turning around and timely contact with her to determine the avoidance intention, averting from passing the head of turning vessel.

Vessels turning around shall not take means of anchoring or dragging in turning basins.

Article 21 Vessels, when proceeding in the vicinity of precautionary areas, turning basins,

ferry routes, mouths of branch-rivers and overwater and underwater operation areas, shall navigate with particular caution and comply with the transportation organization conducted by the competent authority.

Article 22 Tug trains and large vessels shall notify the movement through VHF06 and apply any effective measures to avoid encountering other vessels, when proceeding within the following areas:

1. Lujiazui Bend;
2. Dongjiadu Bend;
3. Longhua Bend;
4. Manlizui Bend;
5. waters of Xupu Bridge;
6. Zhagang Bend.

Article 23 Large vessels steering astern shall navigate at a distance not exceeding 600 meters except for a close-quarters situation.

Article 24 Lifeboats (rafts), cargo derricks and gangways etc. shall not stick overboard during navigation.

Article 25 Ferry boats shall comply with the following requirements:

1. Passenger capacity shall not exceed approved passenger quota;
2. Ferry crewmembers shall strictly observe watch-keeping requirements;
3. Proper look-out, efficient communications and the notification of intention shall be conducted, and the time to leave berth and cross the fairway appropriate to the prevailing navigation circumstance shall be chosen to avoid a close-quarters situation with other vessels navigating in the fairway.

Article 26 Vessels navigating, berthing, operating and engaging in other activities that affect the navigation safety, shall observe relevant regulations of bridge water areas promulgated by the competent authority.

Article 27 Encountering with one of the following situation, the competent authority may take temporary traffic control measures and notify vessels in advance according to the circumstance, such as time-limited navigation, one-way navigation, closure of navigation, etc., in order to restrict and clear the navigation of vessels.

1. heavy weather;
2. overwater and underwater operations affecting the navigation safety;
3. marine accidents affecting the navigation safety;
4. heavy traffic density affecting the navigation safety;
5. other situations that need to take temporary traffic control measures.

Article 28 The following vessels are forbidden to take night navigation:

1. oil tankers and liquid chemical tankers with age on and above 26, except for double hull oil tankers and liquid chemical tankers of type 1 or type 2;
2. liquid chemical tankers of type 3;
3. vessels carrying the oil with a flash point less than 23°C and liquid chemicals;

4. liquid chemical tankers carrying major hazards classified as the category X;
5. vessels carrying liquefied gases in bulk.

Article 29 Vessels under trial navigation shall avoid night navigation and observe the following requirements:

1. Develop a practicable navigation plan and emergency arrangement, and report to the competent authority for recording in advance;
2. Keep the latest navigation publications and materials onboard;
3. Complete the check and test of relevant navigation safety equipment before the voyage to ensure those equipment in good condition;
4. Exhibit signals in accordance with regulations;
5. Apply safety precautions when it is necessary.

Article 30 Deep Water Fairway of Wujing is a one-way fairway for the vessel constrained by her draught.

A vessel constrained by her draught, when proceeding in the Deep Water Fairway of Wujing, shall navigate with caution and take necessary precautions to ensure navigation safety. Other vessels are prohibited to impede the safe passage of the vessel constrained by her draught. Large vessels and tug trains shall not encounter and overtake the vessel constrained by her draught in the fairway.

Chapter III Berthing

Article 31 Vessels shall berth at or leaving wharfs, moor or leaving buoys on schedule.

Article 32 Vessels shall not impede the passage of other vessels when berthing at or leaving wharfs, mooring or leaving buoys.

Embarking, disembarking of personnel, loading or unloading cargoes are not permitted when a vessel is berthing at or leaving wharfs, mooring or leaving buoys. Irrelevant vessels are not permitted to moor buoys or berth at wharfs.

Article 33 Vessels shall berth according to the approved berthing capability of wharfs.

Article 34 Vessels shall berth at wharfs or moor buoys according to the specified berthing width. Berthing exceeding the specified width and single buoy mooring are prohibited.

During berthing and operating, ships and wharfs' cargo-handling gear shall not impede the safe passage of other vessels.

Article 35 Except for wind shelter and other emergencies, no vessel shall anchor outside of anchorages.

Vessels shall keep safe distances from other anchoring vessels when anchoring in the specified anchorage.

During anchoring, vessels shall exhibit signals as prescribed, arrange duty crewmembers, keep proper look-out and take necessary measures to avoid dragging.

Article 36 No vessel shall anchor and dredge within waters of 100 meters on both sides of

submarine lines.

Chapter IV Report

Article 37 Vessels shall be equipped with VHF that is in good condition during navigating or anchoring. Designated people shall stand by on the channel in accordance with requirements.

Article 38 Vessels flying the flag of China engaged on domestic routes enter or leave the Huangpu River shall report the schedule.

Vessels can report via Internet, fax and short message, and the reporting shall include the information of voyage, onboard crewmembers, cargo and passengers, ETA, ETD and wharfs.

Vessels intending to navigate, berth or operate in the Huangpu River shall report the movement and voyage to the competent authority through VHF.

Article 39 The owner or operator shall report safety measures and voyage schedules to the competent authority 24 hours before a vessel constrained by her draft or a vessel restricted in her ability to manoeuvre entering the Huangpu River.

Article 40 Large vessels, passenger ships, dangerous cargo vessels of 500 DWT or above and large tug trains shall report to the Wusong VTS Center through VHF when navigating through the joint line linking the Wusongkou Lighthouse and Light-buoy No.101.

Article 41 A half hours before navigating upstream to Manlizui, downstream to Zhagang or leaving wharfs, a vessel of 3000GT or above intending to navigate through Deep Water Fairway of Wujing shall report to the competent authority on VHF 13.

Article 42 Vessels shall report to the competent authority in advance when anchoring or heaving up anchor.

Once a vessel is found dragging, she shall take measures immediately, notify vessels in the vicinity, and report to the competent authority as soon as possible.

Article 43 A vessel intending to anchor out of the anchorage due to the heavy weather, being out of control or other special conditions, shall report her movement to vessels in the vicinity on VHF 06, exhibit signals, take effective measures to keep clear of the fairway in time and report to the competent authority promptly.

Article 44 The vessel in an accident or having equipment failure that is harmful for navigation, shall take measures to conduct self-saving and mutual-rescue immediately, report to the competent authority by all available means, and notify the movement to vessels in the vicinity.

A vessel in a sinking danger situation shall keep clear of the fairway as far as practicable. Vessels in the vicinity shall do the utmost to rescue people in distress.

Once a vessel has sunk in the fairway, the sinking position shall be reported to the competent authority immediately. The owner or operator of the vessel shall set up a prescriptive mark in its sinking position as soon as practicable, and take other measures to prevent collision from other vessels.

Article 45 Except for an emergency situation, launching lifeboats (rafts) or life floats shall be reported to the competent authority in advance.

Chapter V

Give-way

Article 46 The following vessels shall keep clear of underway vessels in the fairway:

1. vessels not navigating in the prescribed fairway;
2. cross-river ferries and vessels crossing the fairway;
3. vessels entering or leaving branches of Huangpu River;
4. vessels berthing at or leaving wharfs, mooring buoys and vessels entering and leaving anchorage.

Chapter VI

Annex

Article 47 Definitions of the following terms in the regulations are:

1. the term “large vessel” refers to any vessel of 3000 GT or above;
2. the term “small vessel” refers to any vessel less than 3000 GT;
3. the term “a large tug trains” means a composite unit with a tug and one or more large vessels and installations.
4. the term “vessel constrained by her draft” means any vessel because of her draft in relation to the available depth and width of navigable water is severely restricted in her ability to deviate from the course she is following.
5. the term “vessel restricted in her ability to manoeuvre” means a vessel which from the nature of her work is restricted in her ability to manoeuvre as required by *the International Regulations for Preventing Collision at Sea in 1972* and is therefore unable to keep out of the way of another vessel;
6. the term “waters of heavy cruise boats density” means waters from the Yangpu Bridge to the Lupu Bridge.

Article 48 Appendixes of the regulations have the same legal force as the text. The competent authority is responsible for issuing navigational notice and navigational warning in case of any change.

Article 49 The regulations shall enter into force on Jan 15th, 2018, and the legal period of validity is 5 years. *Regulations on Navigation Traffic Safety Administration of Huangpu River in Shanghai* (Announcement No. 17 [2015] of the Ministry of Transport) shall be revoked simultaneously.

Navigation Elements of the Huangpu River in Shanghai

1. Channel Separation Line

I. Base Line of Puxi-side

(1) It is the joint line, which starts from the Wusongkou Lighthouse, successively linking the position of 80 meters outside the jetty, the position of 80 meters in front of every wharf on Puxi-side, the position of 65 meters outside the water inlet of Zhabei Power Plant, alongside the river bend through Light-buoys No.107, No.108 and No.110, Mooring-buoys No.S16 and No.S19, Geographical Coordinate Point A, Mooring-buoys No.B1 and No.B37, Geographical Coordinate Point B and Geographical Coordinate Point C.

(2) The joint line, which starts from Geographical Coordinate Point C, alongside the river bend linking the position of 100 meters in front of the Expo-Watergate Pier, the position of 80 meters in front of the Kaiping Wharf to the position of 80 meters outside the upstream end of Huilong Wharf.

(3) The 5-meter depth contour along Puxi-side of the Huangpu River, from the upstream end of Huilong Wharf to the Light-buoy No.131.

(4) The boundary line of Puxi-side of Deep Water Fairway of Wujing, from the Light buoy No.131 to the position of 120 meters from upstream Wujing Second Power Plant.

(5) The 5-meter depth contour along Puxi-side of the Huangpu River, from the position of 120 meters from upstream Wujing Second Power Plant to the upper boundary of upstream Minhang Power Plant.

II. Base Line of Pudong-side

(1) It is the joint line, which starts from the boundary of the Huangpu River, linking Light-buoy No.101, No.103 and No.106, alongside the river bend linking the position of 80 meters in front of all wharfs on the Pudong-side to Mooring-buoys No.B42, No.B43 and Light-buoy No.114.

(2) It is the joint line, which starts from the Light-buoy No.114, alongside the river bend linking the position of 80 meters in front of all wharfs on the Pudong-side, Geographical Coordinate Point C, D, E to the position of 100 meters on the south of Light-buoy No.133.

(3) The boundary line of Pudong-side of Deep Water Fairway of Wujing.

(4) The 5-meter depth contour along Pudong-side of Huangpu River, linking the position of 120 meters upstream the Wujing Second Power Plant to the upper river mouth of Juchao Gang.

2. Deep Water Fairway of Wujing

The Deep Water Fairway of Wujing is a dredged FAIRWAY within Tangche Ferry Route

and the Wharf of Wujing Second Power Plant which starts from the Light-buoy No.131, linking Light-buoy No.133, to the position of 120 meters on the upstream side of Wujing Second Plant, with 4041 meters in total length, 100 meters width in the bottom, and 9.1 meters designed depth.

3. Precautionary Areas

(1) Wusong Precautionary Area

Wusong Precautionary Area is waters within the joint line linking the Wusongkou Lighthouse and Geographical Coordinate Point G1 and the line linking Geographical Coordinate Point G2 and G3.

(2) Wenzaobang Precautionary Area

Wenzaobang Precautionary Area is waters within the joint line linking Geographical Coordinate Point H1 and H2, and the line linking Geographical Coordinate Point H3 and H4.

4. Turning Basins

(1) No.1 Turning Basin

No.1 Turning Basin is waters where from the joint line linking Geographic Coordinates Point I1 (the upstream corner of Jungong Road Wharf) and point I2 (the upstream corner of Pudong Changhang No.12 Barge Dock) to Geographic Coordinates Point I3 and I4 .

This turning basin is only available for vessels less than 300-meter length overall.

(2) No.2 Turning Basin

No.2 Turning Basin is waters where from the joint line linking Geographic Coordinates Point J1 and J2 to Geographic Coordinates Point J3 (the upstream corner of Wharf of Shanghai Second Steel Corp in Fuxing Island) and point J4 (the upstream corner of Wharf of Lixin Shipyard.)

This turning basin is only available for vessels less than 300-meterlength overall.

(3) No.3 Turning Basin

No.3 Turning Basin is waters where from the joint line linking Geographic Coordinates Point K1(the downstream corner of Wharf of Shanghai West Shipyard) and K2 (the upstream corner of Qichangdongzhan Wharf) to Geographic Coordinates Point K3 (the upstream corner of Huangpu Wharf) and point K4 (the upstream corner of Qichangxizhan Wharf).

This turning basin is only available for vessels of less than 275-meter length overall.

(4) Shiliupu Turning Basin

Shiliupu Turning Basin is waters where from the joint line linking Geographic Coordinates Point L1 and point L2 to Geographic Coordinates Point L3 and L4.

This turning basin is only available for cruise boats and yachts.

(5) World Expo Turning Basin

World Expo Turning Basin is waters where from the joint line linking Geographic Coordinates Point M1 and M2 to Geographic Coordinates Point M3 and M4.

This turning basin is only available for cruise boats and yachts.

(6) Longhua Turning Basin

Longhua Turning Basin is waters where from the joint line linking Geographic Coordinates Point t N1 and N2 to Geographic Coordinates Point t N3 and N4.

This turning basin is only available for cruise boats and yachts.

5. Anchorages

Name	Position and Requirement
Zhanghuabang Anchorage	<p>Waters within the joint line linking the position of 31°21'32.4"N/121°30'15.2"E alongside the river bend to the downstream position 31°22'06.3"N/121°29'58.0"E and the Pudong-side parallel line at the beam distance of 100 meters.</p> <p>This anchorage is exclusively available for inland vessels of 500 DWT or less, inland tugs and sea vessels of 200 DWT or less to wait for tidal current.</p> <p>Continuous berthing period shall not exceed 24 hours.</p>
Longhuazui Anchorage for Small Vessels	<p>Waters within the 5-meter depth contour at the position at distance of 30 meters on the upstream side of the upstream corner of Shanghai Vessels Requirement Factory, alongside the bend river to 130-meter upstream point and Pudong shoreline.</p> <p>This anchorage is exclusively available for vessels less than 100 GT to shelter from wind and wait for berth or tidal current.</p> <p>Continuous berthing period shall not exceed 72 hours.</p>
Xiaohangpu Anchorage for Small Vessels	<p>Waters with the line extending the point 110 meters upstream of the Light Pile of Yangsi Water Factory to the 330-meter upstream point, 60 meters away from the bank and its 120-meter away parallel line towards the center of the river. That is the area joint the line successively as the following 4 points:</p> <ol style="list-style-type: none"> 1、 31°09'30.1"N, 121°27'52.9"E; 2、 31°09'31.2"N, 121°27'50.2"E; 3、 31°09'37.5"N, 121°27'53.4"E; 4、 31°09'36.6"N, 121°27'56.2"E. <p>This anchorage is exclusively available for vessels less than 100 GT to</p>

	shelter from wind and wait for berth or tidal current. Continuous berthing period shall not exceed 72 hours.
Anchorage of Wengjia Tang	Waters that is the Pudong-side area within Wengjia Tang and Yantie Tang. That is the area connecting the line successively as the following 10 points: (1) 31°02'39"N 121°28'46"E; (2) 31°02'40"N 121°28'48"E; (3) 31°02'36"N 121°28'49"E; (4) 31°02'25"N 121°28'50"E; (5) 31°02'09"N 121°28'53"E; (6) 31°01'58"N 121°28'56"E; (7) 31°01'58"N 121°28'54"E; (8) 31°02'09"N 121°28'51"E; (9) 31°02'25"N 121°28'47"E; (10) 31°02'36"N 121°28'46"E; This anchorage is exclusively available for vessels less than 3000 GT to shelter from wind and wait for berth or tidal current. Continuous berthing period shall not exceed 72 hours.

Annotation: Oil tankers, dangerous good vessels are prohibited from anchoring in the anchorages above, except the Zhanghuabang Anchorage.

6. Latitudes and Longitude of Some Maritime Objects, Buoys, Mooring-buoys and Geographical Coordinate Points

No.	Name	Sort	Position
1	Wusongkou Lighthouse	/	31°23'47.2"N/121°31'08.4"E
2	Light-buoy No. 101	/	31°23'39.6"N/121°31'32.3"E
3	Light-buoy No.103	/	31°23'26.5"N/121°30'40.7"E
4	Light-buoy No.106	/	31°21'27.3"N/121°30'18.9"E
5	Light-buoy No.107	/	31°20'38.3"N/121°31'48.0"E
6	Light-buoy No.108	/	31°20'28.4"N/121°32'28.0"E
7	Light-buoy No.110	/	31°20'12.5"N/121°33'01.4"E
8	Light-buoy No.114	/	31°14'30.3"N/121°29'22.5"E
9	Light-buoy No.121	/	31°08'11.1"N/121°27'29.0"E
10	Light-buoy No.131	/	31°05'16.1"N/121°27'55.6"E
11	Light-buoy No.133	/	31°03'44.0"N/121°28'23.2"E
12	Mooring-buoy No.B1	A Level	31°17'32.4"N 121°33'43.1"E
13	Mooring-buoy No.B8	A Level	31°16'43.0"N 121°33'49.8"E
14	Mooring-buoy No.B24	B Level	31°15'30.1"N 121°32'32.2"E
15	Mooring-buoy No.B37	A Level	31°14'58.7"N 121°31'18.2"E
16	Mooring-buoy No.B42	A Level	31°14'55.3"N/121°30'21.3"E
17	Mooring-buoy No.B43	A Level	31°14'54.6"N/121°30'13.5"E
18	Mooring-buoy No.B83	A Level	31°10'14.2"N/121°27'42.3"E
19	Mooring-buoy S16	A Level	31°19'38.9"N 121°33'23.0"E
20	Mooring-buoy No.S19	A Level	31°19'17.7"N 121°33'25.3"E
21	Pudong Terminus	/	31°23'21.5"N 121°31'16.0"E

22	Minghang Power Plant	/	30°59'10.8"N 121°22'04.2"E
23	Geographical Coordinate Point A	/	31°18'30.3"N 121°33'21.0"E
24	Geographical Coordinate Point B	/	31°13'59.3"N 121°29'29.0"E
25	Geographical Coordinate Point C	/	31°12'01.0"N 121°29'42.0"E
26	Geographical Coordinate Point D	/	31°11'15.3"N 121°28'03.0"E
27	Geographical Coordinate Point E	/	31°09'37.5"N 121°27'53.4"E
28	Geographical Coordinate Point F	/	31°09'31.2"N 121°27'50.2"E
29	Geographical Coordinate Point G1	/	31°23'21.6"N 121°31'15.6"E
30	Geographical Coordinate Point G2	/	31°23'34.7"N 121°30'33.8"E
31	Geographical Coordinate Point G3	/	31°23'15.5"N 121°30'50.5"E
32	Geographical Coordinate Point H1	/	31°22'32.6"N 121°29'49.4"E
33	Geographical Coordinate Point H2	/	31°22'28.3"N 121°30'08.9"E
34	Geographical Coordinate Point H3	/	31°22'17.1"N 121°29'46.0"E
35	Geographical Coordinate Point H4	/	31°22'12.1"N 121°30'05.9"E
36	Geographical Coordinate Point I1	/	31°20'52.5"N 121°31'02.8"E
37	Geographical Coordinate Point I2	/	31°21'07.7"N 121°31'09.8"E
38	Geographical Coordinate Point I3	/	31°20'35.8"N 121°31'39.7"E
39	Geographical Coordinate Point I4	/	31°20'50.9"N 121°31'48.9"E
40	Geographical Coordinate Point J1	/	31°19'00.6"N 121°33'16.6"E
41	Geographical Coordinate Point J2	/	31°19'00.5"N 121°33'40.8"E
42	Geographical Coordinate Point J3	/	31°18'11.7"N 121°33'17.2"E
43	Geographical Coordinate Point J4	/	31°18'16.0"N 121°33'36.9"E
44	Geographical Coordinate Point K1	/	31°15'03.9"N 121°31'12.4"E
45	Geographical	/	31°14'48.8"N 121°31'08.4"E

	Coordinate Point K2		
46	Geographical Coordinate Point K3	/	31°15'04.4"N 121°30'43.5"E
47	Geographical Coordinate Point K4	/	31°14'48.9"N 121°30'42.8"E
48	Geographical Coordinate Point L1	/	31°13'55.3"N 121°29'30.5"E
49	Geographical Coordinate Point L2	/	31°14'05.1"N 121°29'42.8"E
50	Geographical Coordinate Point L3	/	31°13'41.6"N 121°29'48.7"E
51	Geographical Coordinate Point L4	/	31°13'51.3"N 121°29'59.3"E
52	Geographical Coordinate Point M1	/	31°11'44.5"N 121°29'15.5"E
53	Geographical Coordinate Point M2	/	31°11'33.3"N 121°29'21.7"E
54	Geographical Coordinate Point M3	/	31°11'40.3"N 121°28'54.9"E
55	Geographical Coordinate Point M4	/	31°11'27.1"N 121°28'58.9"E
56	Geographical Coordinate Point N1	/	31°10'44.2"N 121°27'30.1"E
57	Geographical Coordinate Point N2	/	31°10'44.7"N 121°27'44.1"E
58	Geographical Coordinate Point N3	/	31°10'13.5"N 121°27'37.1"E
59	Geographical Coordinate Point N4	/	31°10'18.2"N 121°27'52.4"E

Appendix 2

The Navigation Safety Technical Requirements of the Huangpu River in Shanghai

1. Requirements of the Vertical Clearance Height of Vessels

(1) Overhead High-Voltage Cables

The sum of the maximum height above the water and the local tide height when vessels navigate under Wusong Overhead High-Voltage Cables shall not exceed 70.99 meters.
The sum of the maximum height above the water and the local tide height when vessels navigate under Wujing Overhead High-Voltage Cables shall not exceed 39.8 meters.
The sum of the maximum height above the water and the local tide height when vessels navigate under Minhang Overhead High-Voltage Cables shall not exceed 28 meters.

(2) River-Spanning Bridges

The sum of the maximum height above water and the height of the Gaoqiao Tide when vessels navigate under Yangpu Bridge shall be less than 52 meters;
The sum of the maximum height above water and the height of the Huangpu Park Tide when vessels navigate under Nanpu Bridge shall be less than 48 meters;
The sum of the maximum height above water and the height of the Huangpu Park Tide when vessels navigate under Lupu Bridge shall be less than 48 meters;
The sum of the maximum height above water and the height of the Huangpu Park Tide when vessels navigate under Xupu Bridge shall be less than 47 meters;
The sum of the maximum height above water and the height of the local tide when vessels navigate under Minpu Bridge shall be less than 41.8 meters;
The sum of the maximum height above water and the height of the local tide when vessels navigate under Fengpu Bridge shall be less than 29.5 meters;
Small vessels (include tug trains and rafts) of which the maximum height above water is 22 meters or less shall pass through the north opening when navigating upstream, and pass through the south opening when navigating downstream.
Large vessels (fleets) shall pass through the middle opening.
The sum of the maximum height above water and the height of the local tide when vessels navigate under navigable opening of No.2 Minpu Bridge (south of the main bridge pier) shall be less than 28 meters.

2. Requirements of the Berthing Width of Vessels

(1) Restricted Width for Vessels Berthing Side by Side at the wharf of Puxi-side

The width provided for vessels berthing side by side between Wusongkou Signal Station and Wusong MSA pier is 24 meters. While the width of No.1 to No.6 Naval Wharf provided for vessels berthing side by side is 32 meters;
The width provided for vessels berthing side by side from Zhanghuabang Wharf to Qiujiang Naval Wharf is 36 meters;
The width provided for vessels berthing side by side at the coast of Fuxing Island is 45

meters, but the width provided for vessels berthing side by side at 100 meters upstream of Fuxing Island is 18 meters;

The width provided for vessels berthing side by side at International Fashion Center Pier is 18 meters;

The width provided for vessels berthing side by side between the upstream end of International Fashion Center pier and the downstream end of Yangshupu Gang River mouth is 26 meters;

The width provided for vessels berthing side by side at the coast between the upstream end of Yangshupu Gang River mouth and the downstream end of Hongkou Gang River mouth is 32 meters;

The width provided for vessels berthing side by side at the coast between the upstream end of Hongkou Gang River mouth and Suzhou River mouth is 26 meters;

The width provided for vessels berthing side by side between East of Jinling Road Ferry Terminal and Kaiping Wharf is 26 meters;

The width provided for vessels berthing side by side at the coast between the downstream end of Kaiping Wharf and the upstream borderline of Minhang Power Plant is 32 meters.

While the width provided for vessels berthing side by side at the coast within the 200 meters range of the downstream of Zhagangzui is 12 meters.

(2) Restricted Width for Vessels Berthing Side by Side at the wharf of Pudong-side

The width provided for vessels berthing side by side at the coast between the upstream end of Sancha Gang Spicery Factory Wharf and the East Pearl Wharf is 32 meters. While the width provided for vessels berthing side by side at the Finished-product Wharf of CCCC Third Harbor Engineering Pudong Branch is 13 meters;

The width provided for vessels berthing side by side at the coast between Hailong Seafood Restaurant and Juchao Gang River mouth is 26 meters. The width provided for vessels berthing side by side at Li Feng Shipyard is 26 meters. Berthing of vessels is prohibited within the coast area between the position of 100 meters from the downstream of Dazhi River mouth and the position of 100 meters from the upstream of Jinhui River.

(3) Restricted Width for Vessels Berthing Side by Side at Mooring-Buoys

The width provided for vessels berthing side by side at two sides of the joint line linking A-Level light-buoys is 16 meters or less.

The width provided for vessels berthing side by side at two sides of the joint line linking B-Level light-buoys is 13 meters or less.

3. Requirements for Length Overall of Vessels

(1) The length overall of vessels navigating within the waters from Wusongkou to Yangpu Bridge shall not exceed 300 meters.

(2) The length overall of vessels navigating within the waters from Yangpu Bridge to Suzhou River estuary shall not exceed 275 meters.

(3) The length overall of vessels navigating within the waters from Su Zhou River estuary to Zha Gang shall not exceed 200 meters.

(4) The length overall of vessels navigating within the waters from Zha Gang to Fengpu

Bridge shall not exceed 165 meters.

4. Requirements for Total Length and Total Width of Towing

(1) The total length of the large tug trains navigating within the waters from Wusongkou Lighthouse to Light-Buoy No.107 shall not exceed 160 meters, and the total width shall not exceed 40 meters;

The total length of the large tug trains navigating within other waters shall not exceed 120 meters, and the total width shall not exceed 32 meters.

(2) The total length of small tug trains shall not exceed 120 meters, and the total width shall not exceed 22 meters.

5. Requirements for VHF Radio Telephone

(1) VHF 06 is the navigational safety channel specifically used for calling between vessels, for reporting ship' movements and for exchanging collision-preventing intention.

(2) VHF 08 channel is specifically used for vessels calling and communicating with Yangpu MSA and Huangpu MSA.

(3) VHF 13 channel is specifically used for vessels calling and communicating with Minhang MSA.

(4) VHF 19 channel (INT) is specifically used for vessels calling and communicating with Wusong MSA.