# STANDARDS FOR UNDERTAKING PILOTAGE SERVICE AND TABLE OF STANDARD DRAFT AND TYPES OF VESSELS ENTERING AND/OR DEPARTING KANMON PORT

As of 17 February 2020

KANMON PILOTAGE COUNCIL
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#### I. GENERAL PROVISIONS

1. This document titled "STANDARDS FOR UNDERTAKING PILOTAGE SERVICE AND TABLE OF STANDARD DRAFT AND TYPES OF VESSELS ENTERING AND/OR DEPARTING KANMON PORT", hereinafter referred to as "Table of Vessel Types", specifies the standards for vessel length (including the case of using two berths), draft, and other conditions for guiding vessels safely in Kanmon Port.

Prior notification to and approval by the Pilots Association is required when any vessel does not conform with the conditions set forth in these standards due to reasonable reasons on the part of the vessel operator. However, if there are any standards or conditions set for certain matters by any council or committee concerning safety of navigation, they must be followed.

#### 2. Terminology

- (1) The tonnage used in the "Table of Vessel Types" is International Gross Tonnage. However, tonnage used based on the Pilotage Law (including the Standard Pilotage Conditions), the Act on Port Regulations, or any other laws pertaining to vessel navigation, is Domestic Gross Tonnage (new tonnage). In both cases, gross tonnage is shown with the abbreviation "G/T" after the figures.
- (2) While the wind velocity shown in the "Table of Vessel Types" represents average wind velocity, the maximum wind velocity could reach a value which is 1.23 times (gust factor) greater than the average wind velocity. Also, the wave height values in the "Table of Vessel Types" represent 1/3 of the significant wave height within Hakuchi.
- (3) With regard to tidal period and the current velocity in Kanmon Straits, the former is based on the "Tide Table--Vol. 1 (Japan and environs)" issued by the Japan Coast Guard. The latter is based on the current velocity displayed on the electric board at Hayatomo Seto Tidal Signal Station (Hinoyama Shita Tidal Signal Station).

#### 3. Criteria for suspending pilotage

In addition to the cases stipulated in the Pilotage Law and/or the Standard Pilotage Conditions, pilotage shall be suspended in the following cases. The decision of suspension of pilotage and lifting of it shall be made by the Chairman of the Pilots Association.

- (1) In case the embarkation and/or disembarkation by the pilot is considered dangerous.
- (2) In case the navigation of the piloted boat is considered dangerous.
- (3) In case a vessel's navigation is considered dangerous because of poor visibility due to dense fog or heavy snow.

\*Navigation shall be possible in case of poor visibility as follows: visibility of about 0.5 miles or more for vessels of less than 10,000 G/T and about 1 mile or more for vessels of 10,000 G/T or more.

#### 4. Maintaining draft

Vessels arriving at and/or leaving berths or jetties in Kanmon Port must secure her bow draft of 1.0 m or more and maintain an appropriate trim and aft draft for safety. It shall be in accordance with Section 6 of the general provisions if any vessel fails to secure the fore draft of 1.0 m or if there are any reasonable causes for not being able to secure it. When any vessel fails to secure the fore draft of 1.0 m or there are any reasonable causes for not being able to secure it, Section 6 of the general provisions shall be applied.

5. Two pilots shall be aboard a vessel of 30,000 G/T or more, based on the stipulation of the Pilotage Law, except for the following cases in which one pilot shall be aboard.

- (1) Vessels passing through Kanmon Straits
- (2) Vessels shifting anchor within the same section
- (3) Vessels shifting anchor between the offshore Mutsure area and Mutsure Anchorage
- (4) Vessels departing from Mutsure Daito Tank Jetty
- (5) Container ships of less than 50,000 G/T berthing/unberthing in Tachinoura Berth in Tanoura District
- (6) Vessels leaving Tanoura Anchorage
- (7) Container ships berthing/unberthing in Hibiki Container Terminal
- 6. In principle, pilotage service shall not be undertaken for vessels with restricted seaworthiness or maneuverability. However, if the vessel company or the agent informs the accurate conditions of the vessel to the Pilots Association, and guiding the vessel is judged to be possible by taking the following conditions into consideration, pilotage may be undertaken. Those conditions are: condition of the water area, wind and current flow, the time of day, repair condition of the defective parts of the vessel, use of additional tugboats for assistance, and navigational safety.
- 7. Pilot's embarkation point

Unless the pilot's embarkation point is set for each berth, the embarkation point of the pilot(s) who are to guide the vessels passing through Kanmon Passage or arriving at and/or leaving any berths or jetties in the Passage shall be as follows.

(1) East entrance to Kanmon Pilotage Area

Around 119°, 1.9 miles from Hesaki Lighthouse

(2) West entrance to Kanmon Pilotage Area

Around 0°, 1.6 miles from Mutsure Lighthouse

However, as there are cases in which the pilot contacts the vessel he or she is to guide directly depending on the weather, sea and other conditions, the concerned vessel must continue listening to VHF Channel 16.

- 8. Navigation restrictions in case of poor visibility shall be in accordance with the stipulations in Article 14-2 of the Act on Port Regulations and in Article 8-2 of the Enforcement Regulations of the Act on Port Regulations. If visibility is 500 meters or less and the Harbor Master of Kanmon Port judges it to be necessary to prevent danger to the vessels, said vessels must wait outside of the Passage based on the order of the Harbor Master of Kanmon Port.
- 9. The Guidance of the Harbor Master was put into force on July 1, 1990 for coordination of the traffic of head-on situations in Hayatomo Seto Waterway as follows.
  - (1) Between general vessels:

A vessel of 10,000 G/T or more with a vessel of 10,000 G/T or more

(2) Between oil tankers:

A vessel of 3,000 G/T or more with a vessel of 3,000 G/T or more

(3) Between a general vessel with an oil tanker:

A general vessel of 10,000 G/T or more with an oil tanker of 3,000 G/T or more

- 10. The names of mooring facilities with a "\(\pi\)" in the "Table of Vessel Types" indicates the subject facilities for berthing/unberthing during nighttime.
  - (1) The subject facilities for berthing/unberthing during nighttime must be equipped with appropriate lighting facilities (if the berth is not equipped with such, the vessel company or

- others must prepare floodlights and/or other comparable lighting). If any other vessel is anchored in the water area for maneuvering, move her with prior consultation among the parties concerned, to secure safety in the vessel maneuvering water area.
- (2) To request a pilot for the nighttime, prior consultation with the Pilots Association is required to confirm the captain's experience of berthing/unberthing during daytime, good maintenance condition of the vessel's facilities, wind and tidal current conditions, number of tugboat(s), and others.
- (3) Berthing/unberthing in each section in Kanmon Port at nighttime shall be as follows:
  - The type of vessels to berth at Wakamatsu Section at night shall be in accordance with the "Guidelines for Entering Wakamatsu District of Kanmon Port During Nighttime".
  - The type of vessels to berth at Shimonoseki, Moji, Tanoura (Tachinoura) Districts at night, except for container vessels, shall be in accordance with the "Guidelines for Entering Kanmon Port (Moji, Shimonoseki Districts) During Nighttime".
  - The type of vessels to berth at Choshu Dejima at night shall be in accordance with the "Guidelines for Safety Measures for Nighttime Entry in Choshu Dejima".
  - Night time berthing/unberthing in Tanoura Section (Tachinoura) by container ships shall be in accordance with the "Safety Manual for Container Ships Entering in/Departing from Tachinoura During Nighttime".
- 11. Nighttime unberthing of vessels not listed in the "Table of Vessel Types" shall follow the "Guidelines for Entering Kanmon Port (Moji, Shimonoseki Districts) During Nighttime" and those for "Entering Wakamatsu District of Kanmon Port During Nighttime".
- 12. The names of mooring facilities with the mark "" in the "Table of Vessel Types" indicates the facilities for which necessary measures have been taken after the survey for the safety of berthing/unberthing operations and vessel navigation by the expert committee set up by the Seibu Association for Maritime Safety.

### II. STANDARDS FOR VESSELS PASSING THROUGH KANMON STRAITS

(Shimonoseki Southeast Waterway No. 1 Buoy – Mutsure Matsuse North Buoy)

1. Maximum LOA	Vessels of LOA 330 m or less during daytime, LOA 295 m or less during nighttime.
2. Permissible Draft	<ul> <li>(1) UKC shall be 15% of the draft.</li> <li>(2) Maximum draft shall be 11.40 m. (see Note 1) However, in case of a vessel with her draft exceeding 10.40 m to 11.40 m or less, the Pilots Association shall make a judgment based on the tidal period and current velocity in Hayatomo Seto.</li> </ul>
3. Maintaining Vessel Speed	When a vessel is navigating in Hayatomo Seto against the tidal current, she shall maintain her speed at more than 5 knots and above the current velocity.
4. Current	(1) For navigation of vessels of 30,000 G/T or more (LOA 200 m or more

Velocity for Passing Hayatomo Seto	for PCC vessels) and vessels of less than 30,000 G/T with the draft of 10 m or more, for both east and west bound, vessels shall pass through the Straits only when the current velocity is 5 knots or less, irrespective of the current direction.  (2) Vessels of 10,000 G/T or more and less than 30,000 G/T with the draft of 8.5 m or more and less than 10.00 m (except for container vessels, RO-RO vessels, PCC and Passenger) shall be possible to navigate eastbound in the easterly tidal flow, only when the current velocity is less than 7 knots.
5. Passing the Straits at Nighttime	<ol> <li>(1) General Vessels: must be less than 60,000 G/T</li> <li>(2) Passenger Vessels: must be less than 80,000 G/T</li> <li>Current velocity of 3 knots or less for vessels of 60,000 G/T or more</li> <li>(3) Dangerous Cargo Carriers: less than 10,000 G/T (see Note 2)</li> <li>(4) Vessels of 30,000 G/T or more (or PCC of LOA 200 m or more) must be accompanied by one escort boat (high-speed or tugboat) at night.</li> <li>(5) Vessels with poor maneuverability may be restricted to passing through the Straits at night. (see Note 3)</li> </ol>
6. Arrangement of Escort Boats	Vessels of LOA 250 m or more, as well as dangerous cargo carriers of 10,000 G/T or more (see Note 2), must be accompanied by one escort boat (high-speed or tugboat) to pass through Hayatomo Seto.
7. Height limit to navigate under Kanmon Bridge	The height limit is set at 61 m to navigate under the Kanmon Bridge. For vessels exceeding 56 m, prior consultation with the Pilots Association is required.
8. Vessels with restricted maneuverability , etc.	Prior consultation is required for special condition vessels, such as those with restricted maneuverability, as their transit time shall be selected depending on the direction, velocity of current flow, and the type of vessels. (see Note 3)

Note 1. As the UKC during navigation through Kanmon Passage is set to secure 15% of the draft to the water depth, which is obtained by adding the rise of tide on top of the standard water depth of 12.0 meters, the maximum draft could be changed depending on how shallow water areas extend. Therefore, inquiries must be made to the Pilots Association to obtain the most up-to-date information.

Note 2. Dangerous cargo refers to dangerous objects stipulated in the Act on Port Regulations. Once the captain of a vessel confirms that she is free of the risk of fire or explosion after becoming gas free with inert gas-filling operations, she may be excluded.

Note 3. Vessels with restricted maneuverability, etc. include vessels with their structures protruding outside the hull, or vessels with seriously restricted foresights, as well as large scale vessels under towing.

#### III. WAKAMATSU DISTRICT, HIBIKI SHINKO DISTRICT

#### 1. WAKAMATSU DISTRICT (GENERAL)

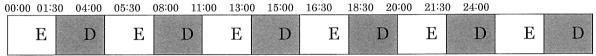
- 1. The decision of the tidal period for berthing/unberthing is left to the Pilots Association. UKC shall be at least 10% of the vessel's draft.
- 2. The height limit of vessels navigating under Wakato Bridge is 38 m, regardless of tidal period.
- 3. Time to commence pilotage for berthing in sea areas covered by sea traffic control signals (Westward from B line) in Wakamatsu 1 to Wakamatsu 5 sections is 07:00 for Hesaki embarkation point and 07:30 for Mutsure embarkation point, regardless of the season (summer or winter).

4. Wakamatsu District sea traffic control signals Summer season: (April 1 – September 30)



E = Entry; D = Departure

Winter season: (October 1 – March 31)



E = Entry; D = Departure

Signals may be switched earlier than the standard time (maximum 30 minutes) depending on the conditions, during both summer and winter season.

#### 5. Turning standards in Oku Dokai Passage

In principle, turning of a vessel of LOA 67 m or more shall be carried out at O2 water area. The undermentioned vessels, however, may turn at areas mentioned below, provided that approval is given by the Wakamatsu Harbor Traffic Control Office.

- (1) A vessel of LOA 67 m or more and less than 75 m with a good turning performance or such vessels as being assisted by tugboat(s) may turn at sea areas in front of the berths for both berthing and unberthing.
- (2) A vessel of LOA 75 m or more may turn at the water areas mentioned below.
  - 1) Around the entrance of Kurosaki Hakuchi:

LOA of less than 100 m with draft 5.0 m or less

2) Water area in front of Futajima Public Berth (OL):

LOA of less than 140 m with draft 7.0 m or less (see Note 1)

3) O2 Water area

LOA of less than 160 m with draft 7.40 m or less

- Note 1. When OL Berth or OKI Berth is vacant, a vessel of LOA less than 150 m may carry out her turning at this place.
  - (3) In case a vessel leaving (unberthing) OD1 is not able to turn in front of the berth, she must arrive at the water area for turning at the end of the entry signal.

#### 2. WAKAMATSU SECTION NO. 1 (OKU DOKAI)

Mooring Facility		EDI	LOA	Draft	Night
		Code	(m)	(m)	Entry/Departure
☆ Tokyo Seitetsu Jetty	OT	OT00C	approx. 80	5.2	LOA 100 m or
☆ Mitsubishi Material Jetty	OM	OM00C	115	7.2	less
Taiheiyo Cement Berth	OC	OC00C	85	5.2	Not possible
☆ Mitsubishi Chemical Coal	OKI	OI01C	160	7.6	
Pier No. 1					
☆ Mitsubishi Chemical	OKR	OR02C	160	7.6	LOA 100 m or
Inorganic Pier No. 2					less
☆ Mitsubishi Chemical	OKV	OV02C	88	6.0	
Synthesize Jetty No. 2					
☆ Yawata Seitetsu Berth	OB1	OB01C	160	8.5	LOA 100 m or
	OB2	OB02C			less
Horikawa Public Berth	OH3	OH03C		5.0	
(New Berth)	OH4	OH04C			
Futajima Public Berth No. 1	OL1	OL01C	109	6.3	
					Not possible
Futajima Public Berth No. 2	OL2	OL02C	90	4.5	1
Kurosaki Public Berth	OD1	OD01C	150	7.0	
	$\mathrm{OD}2$	OD02C			

### 1. Wakamatsu No. 1 Section: Vessels of LOA 135 m or more, or gross tonnage 10,000 G/T or more [Berthing]

- (1) Wind Velocity: average 12 m/sec or less
- (2) Visibility: 0.5 mile or more
- (3) Tugboat(s): Two tugboats shall assist and they will attend from Wakato Bridge. For vessels with dangerous cargo loads, one tugboat will attend from the entrance of the Wakamatsu Passage as an escort boat.

#### [Unberthing]

- (1) Wind Velocity: average 12 m/sec or less, and the possibility of departure shall be determined by the pilot in charge
- (2) Visibility: 0.5 mile or more
- (3) Tugboat(s): After turning in O2 water area, two tugboats shall be arranged, one for fore, the other for aft, following to Wakato Bridge. After passing under Wakato Bridge, one tugboat shall follow until the exit of the Wakamatsu Passage. If the wind velocity is 10 m/sec or more, use three tugboats by adding one, in accordance with the judgment of the pilot in charge.

#### 2. Mitsubishi Chemical Inorganic Pier No. 2 (OKR)

When a vessel of LOA 160 m is moored alongside the pier of 325 m, the other vessel should be LOA 115 m or less. Also, a distance of 30 m must be secured with another vessel.

#### 3. Kurosaki Public Berth (OD1 · OD2)

For vessels of LOA 150 m or more, consultation with the parties concerned is required.

#### 3. WAKAMATSU SECTION NO. 2 (YAWATA HAKUCHI)

Mooring Facility	EDI Code	LOA (m)	Draft (m)	Night Entry/Departure
☆ Yawata Seitetsu Berth No.   14 · 15 · 16 · 17 · 18	YS14C -YS18C	180	8.5	LOA 115 m or less (LOA 130 m or less when pilot is aboard)
☆ Yawata Seitetsu Berth No.  19 · 20	YS19C	166	8.5	
	YS20C			LOA 115 m or less
☆ Asahi Glass Material Berth	YE04C	166	8.5	
☆ Asahi Glass Product Berth	YE05C	арргох, 115	8.0	
☆ Asahi Glass	YE02C		6.8	

#### 1. Yawata Hakuchi

- (1) For nighttime berthing at and/or unberthing from Yawata Berths No. 14-18 with pilot aboard
- (2) The LOA shall be 130 m or less.
- (3) The distance of 25 m or more should be secured between vessels of less than 10,000 G/T. For large vessels of 10,000 G/T or more, 35 m or more should be secured.
- (4) For port entry both day and night, turning and berthing shall be possible.

#### 2. Asahi Glass Material Berth

For turning of vessels in front of Asahi Glass Berths, vessels' LOA should be 110 m or less. In case of vessels of LOA over 110 m, turning shall be carried out in Yawata Hakuchi area.

#### 4. WAKAMATSU SECTON NO. 3 AND 4 (PUBLIC BERTH, UCHIURA)

	Mooring Facility	EDI	LOA	Draft	Night
	·	Code	(m)	(m)	Entry/Departure
Section	Wakamatsu Public Berths No. 4, No. 5	WW04C	100	6.0	Not Possible
No. 3		WW05C	100	0.0	
	☆ Seitetsu Tobata Uchiura Berths No. 4,	YN04C	190	8.5	LOA 130 m
Section	No. 5	YN05C	190	0.0	or less
No. 4	Hibiki Industrial Area Cooperative	YK00C	100	6.0	
	Union Public Berth				Not Possible
	Tobata Public Berth No. 4 (Commercial)	YT04C	110	6.0	
	Tobata Public Berth No. 5 (Commercial)	YT05C	145	6.5	

#### 1. Uchiura Berth

(1) Simultaneous berthing at Uchiura Berths No. 4 and 5 (total length of the berths of 433.20 m) For a vessel of LOA 190 m to Uchiura No. 5 and another vessel of 160 m or more to Uchiura No. 4 berthing at the same time should be avoided. Also, a vessel of LOA 190 m to Uchiura No. 4 and another vessel of 150 m or more to Uchiura No. 5 berthing at the same time should be avoided.

- (2) In case of vessels of 10,000 G/T or more, the distance of 35 m or more should be secured between vessels.
- (3) In case two vessels are berthed alongside Uchiura Berth No. 4 face to face, one vessel shall not use her anchor during berthing.
- (4) At Uchiura Berth No. 5, no anchor shall be used when a vessel is to be berthed along her starboard side.
- (5) For port entry both day and night, turning and berthing shall be possible.

### 5. WAKAMATSU SECTION NO. 5 (HIBIKINADA PUBLIC SOUTH AND OTHERS)

Mooring Facility		EDI Code	LOA (m)	Draft (m)	Night Berthing	Night Unberthing
Hibikinada Public South No. 0	HD2	HN00C	120	9.0		
Hibikinada Public South No. 1	HD3	HN01C	162	9.0	Not Possible	less than
Hibikinada Public South No. 2	HD4	HN02C	162	9.0	Possible	10,000 G/T
Hibikinada Public South No. 3	$\mathrm{HD}5$	HN03C	144	8.2		,
☆ Hibikinada Public South No. 4	HD6	HN04C	139	8.2	LOA 130 m or less	
Tobata Kyodo Karyoku Heavy Oil		WK00C	approx.	5.5	Not Po	ossible
Jetty (YWK)			90			

#### 1. Hibikinada Public South (HD2 – HD6)

- (1) Nighttime departure is possible by vessels of less than 10,000 G/T and shall meet the following conditions.
  - 1) In principle, tugboats shall accompany vessels until near the exit of the Passage.
  - 2) Even when a vessel is equipped with thrusters and self-maneuvering is possible for unberthing during daytime, she should arrange one tugboat for nighttime departure. 3) When another vessel is anchored in the water area for maneuvering, she shall be moved with prior consultation among the parties concerned.
  - 4) Appropriate lighting system (floodlights or other similar system) shall be arranged.
- (2) When HD2 and HD3 are used as one berth, only a vessel of LOA 200 m or less with draft of 9 m or less can be accommodated.

#### 6. WAKAMATSU SECTION NO. 5 (TOBATA HAKUCHI)

Mooring Facility	EDI Code	LOA (m)	Draft (m)	Night Berthing	Night Unberthing
☆ Tobata Hakuchi Berth No. 1	ZS01C		10.5	LOA 130 m or less,	Less than 20,000
☆ Tobata Hakuchi Berth No. 2	ZS02C		11.0	less than 10,000	G/T
☆ Tobata Hakuchi Berth No. 3	ZS03C		13.0	G/T	
☆ ◎ Tobata Hakuchi Berth No. 4	ZS04C	330	16.0	LOA 330 m or less, draft 16 m or less	LOA 290 m or less, draft 10 m or less
★ Tobata Hakuchi Berth No. 8	ZS08C	250	11.5	LOA 200	m or less
Tobata Hakuchi Berth No. 9	ZS09C	170	9.5		

ZLOOC	907.5	11 74	Not Possible
	291.0	11.74	INOUI OSSIDIE

#### 1. Seitetsu Tobata Hakuchi

- (1) UKC shall be 1 meter or more for the vssels of 20,000 G/T or more.
- (2) The tidal period for berthing and/or unberthing shall depend on the vessel type and current velocity as shown below, and the decision shall be made by the Pilots Association.
  - · Less than 10,000 G/T: constantly available
  - · 10,000 G/T or more, less than 2,000 G/T: 5 knots or less at Hayatomo Seto
  - · 20,000 G/T or more and poor maneuverability: 3 knots or less at Hayatomo Seto
  - · LOA 280 m or more: during slack water at Hayatomo Seto
- (3) For any vessel with draft of 13 m or more to enter into Seitetsu Tobata Hakuchi, one escort boat should accompany it from the west entrance of Kanmon Passage.
- (4) One tugboat as an escort boat for foresight watch should be arranged for navigation between Mutsure and Tobata in the Kanmon Passage by vessels of 100,000 G/T or more.
- (5) For any vessel of LOA 280 m or more intending to be berthed at Tobata Berth No. 3, her draft at bow for unberthing should be 9.60 m or less.
- (6) Commencement of anchor shifting in the water area between Tobata Hakuchi and Anse Hakuchi by any vessel of LOA 200 m or more shall be no later than two hours after sunset.
- (7) Adjustment of the vessel, type for entry into and/or departure from Seitetsu Tobata Hakuchi while an ocean-going LNG tanker is lying alongside shall be as follows.
  - 1) For entry:

In principle, LOA shall be 270 m or less and draft shall be 14 m or less. However, for a vessel of LOA 300 m or less and draft 15 m or less, prior consultation shall be required as a precondition.

2) For departure:

In principle, LOA shall be 280 m or less and draft shall be 12.20 m or less. However, for a vessel of LOA 300 m or less and draft of 13 m or less, prior consultation shall be required as a precondition.

#### 2. For Entering and/or Departing Tobata Hakuchi During Nighttime

• Entering and/or departing during nighttime, except for the following cases, shall be in accordance with the "Guidelines for Entering Wakamatsu District of Kanmon Port During Nighttime", and a prior consultation with the Pilots Association is required.

#### (1) Nighttime berthing

- 1) Tobata Berths No. 1, 2, and 3: Nighttime berthing is practicable for vessels of less than 10,000 G/T subject to the permission from the Pilots Association.
- 2) Tobata Berth No. 4: Berthing is possible only by vessels of LOA 330 m or less and draft 16 m or less. However, if any vessel is lying alongside Tobata Berth No. 3, pilotage service for nighttime berthing by any vessel shall be undertaken with securing a distance of 100 m between vessels.
  - ① Four tugboats shall be used. However, in case of a vessel of 10,000 G/T or more, five tugboats shall be used.
  - ② Three escort boats shall be used. However, in case of a vessel of 10,000 G/T or more, one tugboat can be used as an escort boat.
  - ③ Weather and sea conditions
    - · Wind velocity: average 12 m/sec or less
    - · Visibility range: 1 mile or more

- · Wave height: 1.5 m or less
- · Decisions of tidal period for port entry shall be made by the Pilots Association.
- While an ocean-going LNG tanker is lying alongside at LNG Berth, pilotage for nighttime entry by vessels of 30,000 G/T or more shall not be undertaken.
- ⑤ In addition to the abovementioned cases, if there is a possibility that safe passage of any vessel is in jeopardy, pilotage shall be suspended.
- 3) Tobata Berth No. 8: Berthing is possible only by vessels of LOA 130 m or more and less than 200 m with the following conditions.
  - ① A vessel shall be permitted to enter from Mutsure and it should be berthed along her port side.
  - ② Arrangement of tugboats and escort boats for foresight watch:
  - For vessels of less than 30,000 G/T, three tugboats (out of which two boats also function for escorting)
  - For vessels of 30,000 G/T or more, three tugboats (out of which one boat also functions for escorting) and one escort boat for foresight watch
  - When the pilot deems it necessary to arrange one more tugboat, it shall be arranged, regardless of the availability of bow thrusters and others.
  - ③ Coordination among the parties concerned is required to avoid meeting with self-piloted (no pilot aboard) vessels head on in the Tobata Passage.
  - 4 Weather and sea conditions
    - · Wind velocity: average 10 m/sec or less
    - · Visibility: 0.5 mile or more
    - · Current velocity: Current velocity at Hayatomo Seto is 3 knots or less

#### (2) Nighttime Departure

- 1) Tobata Berth No. 4: Vessels of LOA 290 m or less and draft of 10 m or less may depart at night. Vessels of LOA exceeding 290 m shall not depart at night.
  - ① Number of tugboats shall be four. However, the number shall be five for vessels of 100,000 G/T or more.
  - 2 Number of escort boats shall be three, and one of them can function as a tugboat.
  - 3 Weather and sea conditions shall be as follows.
    - · Wind velocity: average wind velocity of 12 m/sec or less
  - · Visibility range: 1 mile or more
    - · Wave height: 1.5 m or less
    - Decisions of tidal period departure shall be made by the Pilots Association.
    - 4 While an ocean-going LNG tanker is lying along the berth, no pilotage service for nighttime departure by a vessel of 30,000 G/T or more shall be undertaken.
    - ⑤ In addition to the abovementioned cases, if there is a possibility that safe passage of any vessels is in jeopardy, pilotage shall be suspended.
- 2) Tobata No. 8 Berth: Vessels of LOA 130 m or more and less than 200 m may depart at night.
  - ① A vessel shall be permitted to depart heading toward Mutsure, and decisions of tidal period shall be made by the Pilots Association.
  - ② Arrangement of tug and escort boats:
    - Three tugboats shall be used with two of them to be used as escort boats after unberthing.
    - If it is necessary to arrange one more tugboat at the pilot's discretion, it shall be

- arranged, regardless of the availability of bow thrusters and others.
- 3 Coordination among the parties concerned is required to avoid meeting with self-piloted (no pilot aboard) vessels head on in the Tobata Passage.
- 4 Weather and sea conditions shall be as follows.
  - · Wind velocity: average wind velocity of 10 m/sec or less.
  - · Visibility: 0.5 mile or more
  - · Current velocity: during slack water at Hayatomo Seto

#### 3) Safety measures for LNG tankers when entering and departing

(Source: The Report on Navigational Safety Measures (Extract) by the Seibu Association for Maritime Safety)

- (1) For arrival at the jetty, LNG tankers shall enter into the Kanmon Passage after sunrise and be berthed completely by sunset.
- (2) For departure, LNG tankers shall be unberthed after sunrise and leave the Kanmon Passage by sunset.
- (3) Navigating through the Tobata Passage shall be carried out within one hour after the slack water in Hayatomo Seto.
- (4) Draft for arriving at and/or departing from the jetty shall be 11.74 m or less.
- (5) In case of eastbound departure, the vessel shall arrange one tugboat for escorting and another tugboat for assistance during navigation through the Kanmon Passage. One of the tugboats must be a Class 4 Firefighting Boat.
- (6) Conditions for arriving at and/or departing from the jetty
  - 1) Wind velocity: average wind velocity of less than 12 m/sec. It should be 15 m/sec or less in case of an emergency unberthing.
  - 2) Visibility range: 1 mile or more
  - 3) Wave height: less than 1.5 m
  - 4) Tidal period: Navigating through the Tobata Passage shall be carried out within one hour after the slack water in Hayatomo Seto. However, in case of an emergency, it shall be decided through consultation with the parties in charge of LNG jetty.
  - 5) Approaching velocity: 7 cm/sec or less.
  - 6) Approaching angle: within 5 degrees 7) Number of assisting tugboats
    - · During navigation through the Passage: 4
    - · While approaching the jetty: 5
    - · While leaving the jetty for emergency: 5
    - 8) Number of pilots shall be two, except in emergency cases, such as a tsunami due to a major earthquake occurring in the Nankai Trough.
    - 9) Others

Other than the abovementioned cases, operations for arriving at and/or departing from the jetty shall be suspended in the following cases.

- When there is a possibility for the average wind velocity to reach 12 m/sec. However, even with the wind velocity of less than 12 m/sec, if other conditions are unfavorable, consultation with the parties concerned shall be required.
- When there is a possibility for the wave height to reach 1.5 m.
- When there is a possibility for the visibility to be less than 1 mile.
- · When there is any abnormality of the hull, engine, or cargo.

#### 7. WAKAMATSU SECTION NO. 5 (SAKAIGAWA HAKUCHI)

Mooring Facility	Mooring Facility		LOA (m)	Draft (m)	Night Berthing	Night Unberthing
☆ NSSC Chemical Jetty	RO	RK00C	90	6.0		
☆ NSSC Chemical Tobata Berth No. 1	R1	RK01C	110	6.3	LOA 80 m or less	
Sakaigawa Public Berth	RS	RS06C RS07C	120	7.0	Not P	ossible

#### 1. Sakaigawa Hakuchi

- (1) Vessels of 3,000 G/T or more shall berth and/or unberth during slack water in Hayatomo Seto.
- (2) Vessels of less than 3,000 G/T shall berth and/or unberth while the current velocity in Hayatomo Seto is 5 knots or less.
- (3) In principle, any vessel of LOA 100 m or more intending to be moored along the Public Berth must use two (2) tugboats for berthing and be berthed along the starboard side. Also, no anchor shall be used for the maneuver of berthing.

#### 8. WAKAMATSU SECTION NO. 6 (ANSE HAKUCHI)

Mooring Facility		EDI Code	LOA (m)	Draft (m)	Night Berthing	Night Unberthing
☆ Nippon Coke Anse Berths No. 1, 2	A1 A2	AN01C AN02C	340	12.2	LOA 180 m or less	LOA 235 m or less
☆ Nippon Coke Anse Berth No. 3	A3	AN03C	110	7.0	LOA 130 m or less	LOA 130 m or less
Sanix Anse Berth No. 4	A4	AN04C	approx. 80	4.6		
Sanix Anse Berth No. 5	A5	AN05C	approx. 80	5.4	Not	LOA 130 m or less
Sanix Anse Berth No. 6	A6	AN06C	approx. 110	6.0	Possible	or iess
Anse Public Berths No. 1 – 5	A8	AN81C – AN85C		5.0		

#### 1. Anse Hakuchi

- (1) Berthing and/or unberthing operations may be suspended in case it is feared that dangerous swells may enter the Anse Hakuchi. Rough standards for the abovementioned case include average wind velocity of 12 13 m/sec or more and wave height of 1.5 m or more.
- (2) The tidal period for berthing and/or unberthing operations shall be decided by the Pilots Association in accordance with the standards of current velocity for different vessel types as follows.
  - · Vessels of less than 10,000 G/T: Available at all times
  - · Vessels of 10,000 G/T or more and less than 20,000 G/T: 5 knots or less in Hayatomo Seto
  - Vessels exceeding 20,000 G/T or vessels with poor maneuverability: 3 knots or less in Hayatomo Seto
  - · A vessel of LOA 280 m or more: during slack water in Hayatomo Seto

- (3) For vessels to shift anchor between Anse and Tobata Hakuchi while meeting each other headon, the draft of the vessel departing Anse Hakuchi should be limited to 10 m.
- (4) UKC shall be 10% or more of the vessel's draft
- (5) When vessels are to be lying alongside A1 and A2 side by side, a distance of 46 m or more should be secured between the vessels.

#### 2. Nighttime entry into/departure from Anse Hakuchi (A1 · A2)

#### (1) Nighttime entry

- 1) Vessels of LOA 130 m or more and less than 180 m may enter at night.
- 2) Vessels with maximum draft of 10 m shall be permitted to enter from Mutsure and be berthed along their portside.
- 3) One high-speed boat as an escort boat for foresight watch shall attend from the Kanmon Passage No. 8 buoy to the front of the berth.
- 4) Two tugboats shall be arranged. However, one more tugboat may be arranged when the pilot acknowledges the necessity, regardless of the availability of thrusters and others.
- 5) Coordination among the parties concerned is required to avoid meeting with self-piloted (no pilot aboard) vessels head-on in the Anse Passage.
- 6) Weather and sea conditions
  - Wind velocity: average 10 m/sec or less
    - · Visibility range: 0.5 mile or more
    - · Tidal period: 3 knots or less in Hayatomo Seto

#### (2) Nighttime departure

- 1) Vessels of LOA 130 m or more and less than 180 m
  - ① Current velocity should be 3 knots or less in Hayatomo Seto
  - 2 Tugboats shall attend until departure from the Passage is complete
- 2) Vessels of LOA 180 m or more and less than 235 m (Escort boats for foresight watch shall be arranged separately.)
  - ① Vessels with draft of 10 m or less shall depart bound only for Mutsure.
  - ② Weather and sea conditions
  - · Wind velocity: average 10 m/sec or less
  - · Visibility range: 0.5 mile or more
  - · Tidal period: 3 knots or less in Hayatomo Seto
- (3) Arrangement of tugboats
  - · Vessels of less than 50,000 G/T: three tugboats with one for escorting duty
  - Vessels of 50,000 G/T or more: four tugboats for turning maneuvers, including one for escorting duty
  - Vessels of 50,000 G/T or more: when there is no turning, three tugboats, including one for escorting duty
- It is possible to arrange one more tugboat when the pilot acknowledges the necessity, regardless of the availability of thrusters and others.
- (4) Coordination among the parties concerned is required to avoid meeting with self-piloted (no pilot aboard) vessels head-on in the Anse Passage.

#### 9. HIBIKI SHINKO DISTRICT

Mooring Facility	EDI Code	LOA (m)	Draft (m)	Night Entry/Departure
Hibikinada West Berths No. 3 and 4	HB03C HB04C	150	9.1	No Limitation
Hibikinada West Berths No. 5 and 6	HB05C HB06C	320	13.6	
Hibiki LNG Jetty	HL01C	300 (moss type)		
		315 (membrane type)	12.73	Not Possible
		177 (bilobe type)		

#### 1. Hibikinada West Berths

- $^{(1)}$  UKC shall be 10% or more of the vessel's draft at the depth which includes the tide level.
- (2) Weather and sea conditions
  - · Wind velocity: average 12 m/sec or less
  - Visibility range: 0.5 mile or more in principle; however, for vessels of LOA 280 m or more, it should be 1 mile or more.
  - Wave height: 1.5 m or less outside of the Hakuchi 0.5 m or less inside of the Hakuchi
- (3) Request for a pilot (Recommendation)

The captain of a vessel of 10,000 G/T or more with no experience of berthing in the Hakuchi in the past one year is recommended to make a request for a pilot, if at all possible.

#### 2. Hibiki LNG Jetty

- (1) UKC shall be 10% or more of the vessel's draft.
- (2) Weather and sea conditions .(Wharf)

[Large Vessels]

- · Wind velocity: average 10 m/sec or less
- · Wave height: 1.0 m or less
- · Visibility: 1 mile or more

The abovementioned conditions will apply, with the possibility of reviewing them after some experience.

#### [Small Vessels]

- · Wind velocity: average 12m/sec or less
- · Wave height: 1.5 m or less
- · Visibility: 1 mile or more
- (3) Mooring side and arrangement of tugboats
  - 1) Vessels shall be moored to this jetty along their port side.
  - 2) Number of Tug

#### [Large Vessels]

Four (4) tugboats shall be arranged. However, if the pilot acknowledges the necessity based on the weather, sea, and/or other conditions, the tugboat for escorting (foresight watch) purpose shall be used for assisting.

#### [Small Vessels]

Number of escort boats shall be two, and one of them can function as a tugboat.

- (4) Timing of entering and departing
  - 1) For entry, the pilot shall embark at off-Hibiki after sunrise and the vessel is to be berthed before sunset.
  - 2) For departure, depart from the jetty after sunrise and leave Hibiki Passage by sunset.
- (5) Decisions of suspending operations for approach or departure

In the following circumstances, suspension of operations for approach or departure shall be discussed with the parties concerned.

- 1) When any conditions that hinder the safety of the navigation in, approach to, or departure from Hibiki Hakuchi arise.
- 2) Pilot's embarkation or disembarkation in a safe manner is considered impossible,
- 3) Weather or sea conditions are expected to deteriorate and it is considered difficult to approach or depart safely after the pilot's embarkation,
- 4) When there are any other conditions leading to a judgment to suspend operations for approach or departure.
- (6) Measures against shallow areas which may affect vessels' maneuvering in Hibiki Hakuchi Set small buoys at the shallow water areas at the north of the jetty as well as where shallow water areas of less than 10 meters start, located along the line extending from Berths No. 5 and No. 6 of Hibiki Container Terminal as warning marks for vessels to maneuver safely at the time of berthing/unberthing. [Large Vesseles Only]
- (7) Adjustment to avoid meeting other vessels

  Coordination among the parties concerned is required to avoid meeting with other vessels
  head-on in the Hibiki Passage.

### IV. MUTSURE SHIMA, NISHIYAMA, KOKURA, SHIMONOSEKI, MOJI, TANOURA, AND CHOFU DISTRICT

#### 1. MUTSURE SHIMA DISTIRCT

Mooring Facility	EDI Code	LOA (m)	Draft (m)	Night Entry	Night Departure
☆ ⊚Shinko Berth No. 1 (Choshu Dejima)	JI01C	203	11.1	less than 15,000 G/T	General Vessels less than 20,000 G/T; PCC (alongside starboard) less than 60,000 G/T
Mutsure Daito Tank Terminal	MT51C	260	15.5	Not Possible	Not Possible

#### 1. Shinko Berth No. 1 (Choshu Dejima)

- (1) For vessels exceeding the standard draft of 11.1 m, UKC shall be constantly 10% or more of her draft at the depth considered to be the tide level.
- (2) Weather and sea conditions

- · Wind velocity: average 12 m/sec or less
- · Visibility range: 0.5 mile or less
- · Wave height: 1.5 m or less

#### (3) Nighttime departure

1) Type of vessels

Vessels must be less than 20,000 G/T, or less than 60,000 G/T in the case of a PCC (along the starboard side).

2) Weather and sea conditions

For PCC with international tonnage of 30,000 tons or more, one tugboat shall be added to make a total of three used, in case wind velocity is between 8 m and more and 12 m/sec or less.

3) Escorting duty

Tugboats shall perform escorting duty in preparation for meeting other vessels which may obstruct the vessel's maneuvers.

4) Anchored vessels outside of quarantine anchorage

If any other vessel anchored outside the quarantine anchorage obstructs the departure, port authority, together with the vessel's agent, shall make a request for the vessel to be moved. If moving such a vessel is not possible, nighttime departure shall be postponed.

5) Others

Regardless of the abovementioned conditions, depending on the weather, sea, and berth conditions, night departure may be postponed, or tugboats may be added at the pilot's discretion.

(4) Request for a pilot (Recommendation)

If the captain of a vessel of 10,000 G/T or more has no experience of berthing here in the past one year, the captain is recommended to make a request for a pilot if at all possible. Also, it is desirable for vessels of 5,000 G/T or more to make a request for a pilot.

#### 2. Mutsure Daitoh Tank Terminal

- (1) Vessels of LOA 245 m or more or draft of 14 m or more shall be moored along the starboard side.
- (2) Vessels of 40,000 G/T or more shall approach/depart while the current velocity in Hayatomo Seto is 5 knots or less.
- (3) Vessels of approximately 7,000 G/T or less (D/W 10,000 type) shall approach with dropping anchor for a possible emergency unberthing.
- (4) Vessels of 5,000 G/T or more shall use two tugboats for departure.

#### 2. NISHIYAMA DISTRICT

Mooring Facility	EDI Code	LOA (m)	Draft (m)	Night Entry	Night Departure
Mitsui Kinzoku Dolphin	NS56C	230	11.9		
Nishiyama <10 m Pile Dolphin	NS03C	162	9.1	Not	less than
Nishiyama Futo Berth No.3	NS04C	199	10.9	Possible	30,000 G/T
Nishiyama Futo Berth No. 4	NS05C	74	5.0		

#### 1. Nishiyama Mitsui Kinzoku Dolphin

- (1) Both approaching and departure shall be carried out while the current velocity in Hayatomo Seto is 5 knots or less.
- (2) Vessels with draft of 10.50 m or more shall approach or depart during slack water in Hayatomo Seto.
- (3) Only vessels of less than 30,000 G/T shall depart at night.
- (4) The side (starboard or port) shall be decided by the pilot.

(5)

#### 2. Nishiyama Futo Berth No. 3 and Nishiyama <10 m Pile Dolphin

(1) Vessels with draft of 8 m or more at the time of approach shall approach while the current velocity in Hayatom Seto is 5 knots or less.

#### 3. KOKURA DISTRICT

Mooring Facility		EDI Code	LOA (m)	Draft (m)	Night Entry	Night Departure	
Hiagari East Berth No. 1		KH01C	100	6.8	Not	Less than	
Hiagari East Berth No. 2		KH02C	120	7.0	Possible	2,000 G/T	
☆Hiagari East Berth No. 3		KH03C	180	9.0			
☆Hiagari East Berth No. 4 ☆Hiagari East Berth No. 5		KH04C KH05C	180	10.0	Less than 10,000 G/T		
☆Hiagari East Berth No. 6		KH06C	200	10.0			
☆Hiagari East Berth No. 7		KH07C	200	11.0			
Tozai Oil Terminal Jetty	HG	KH61C	110	6.75			
☆ Kokura West Berth No. 1	KK	KS75C	292	11.0			
Kokura Murasaki River Berth No. 2	KI	KS74C	190	9.1	Not Possible		
Kanematsu Oil & Co. Jetty	KC	KS53C	170	6.5			
Tozai Oil Terminal Jetty	KC	KS54C					
Kanematsu Oil OIL·LPG Berth	KA	KS52C	106	6.3			

#### 1. Hiagari Berths

- (1) Tidal period for berthing and /or unberthing shall be decided by the Pilots Association in accordance with the standards of vessel types and the current velocity as below.
  - · Less than 10,000 G/T: constantly available
  - $\cdot$  10,000 G/T or more and less than 20,000 G/T: 5 knots or less in Hayatomo Seto
  - $\bullet$  Exceeding 20,000 G/T and/or vessels with poor maneuverability: 3 knots or less in Hayatomo Seto
  - · 30,000 G/T or more: during slack water in Hayatomo Seto
- (2) Nighttime Departure

- As for Hiagari East No. 1 and 2 Berths, nighttime departure shall be carried out only by vessels of less than 2,000 G/T.
- As for Hiagari East No. 3-7 Berths, nighttime departure shall be carried out only by vessels of less than 10,000 G/T.

#### 2. Kokura West Berth No. 1 (KK)

- (1) The tidal period for berthing and unberthing shall be in accordance with the conditions of Hiagari Berth.
- (2) Undertaking pilotage for vessels of LOA exceeding 270 m shall be in accordance with the conditions as below.
  - · Forward draft: 10.54 m or less
  - · Wind velocity: average velocity of 10 m/sec or less
  - · Wave height: 1.0 m or less
  - · Visibility range: 0.5 mile or more
  - During unberthing, there should be no other vessels berthed within 140 m from the Eastern corner of Hiagari East Berth No. 7.

#### 3. Kokura Murasaki River Berth No. 2

(1) Vessels with draft of 8.18 m or more to 9.10 m or less shall berth and unberth during the tidal period to be decided by the Pilots Association.

#### 4. Sunatsu Passage

- (1) Conditions of the current shall be as follows.
- Entering and departing of vessels of 3,000 G/T or more shall be carried out when the current velocity in Hayatomo Seto is 3 knots or less.
- Entering and departing of vessels of 2,000 G/T or more and less than 3,000 G/T shall be carried out when the current velocity in Hayatomo Seto is 5 knots or less.
- · Vessels of less than 2,000 G/T are able to enter and depart at any time.

#### 4. SHIMONOSEKI DISTRICT

Mooring Facility	EDI Code	LOA (m)	Draft (m)	Night Berthing	Night Unberthing
Berth No. 8	SM08C	approx.	4.8		
Berth No. 10	SM10C	200	10.0	NI. t D	Less than
Berth No. 12	SM12C	150	8.0	Not Possible	20,000 G/T
Berth No. 13	SM13C	150	8.5		,
Berths No. 15, 16	SM15C	150	8.5		
	SM16C				
Berth No. 17	SM17C	180	9.1		
☆ Berth No. 18	SM18C			less than 8,000 G/T	
☆ Berth No. 19	SM19C	130	7.0	(weight of loaded cargo: 5,000 tons or less)	
☆ Berth No. 20	SM20C	145	9.0	less than 18,000 G/T	

☆Berth No. 21	SM21C	145	9.4	(weight of loaded cargo: 15,000 tons or less)	
Berth No. 22	SM22C	120	5.2		
Berth No. 24	SM24C	150	10.0	N-4 D:1-1-	
Berth No. 25	SM25C	150	10.0	Not Possible	
Berth No. 26	SM26C	100	6.0		
☆ Shimonoseki	SM01C	210	10.5	less than 26,600 G/T;	
Arukaport 12 m Berth		236	9.9	LOA 184 m or less; Draft 6.60 m or less	

#### 1. Shimonoseki Berths No. 10, 19, 20, and 21

(1) Berthing and unberthing of vessels of 10,000 G/T or more during daytime shall be carried out when the current velocity in Hayatomo Seto is less than 5 knots and flowing westerly. (2) Vessels with draft of 8.50 m or more shall be able to berth along and unberth from Shimonoseki Berth No. 10 when the current velocity in Hayatomo Seto is less than 5 knots, regardless of the flow direction.

#### 2. Shimonoseki Berths No, 12, 13, 15, 16, and 17

Berthing and unberthing of the vessels of 5,000 G/T or more during daytime shall be carried out when the current velocity in Hayatomo Seto is less than 5 knots and flowing westerly.

#### 3. Shimonoseki Berth No. 26

Both berthing and unberthing of vessels shall be carried out during slack water in Hayatomo Seto.

#### 4. Shimonoseki Arukaport Berth

- (1) Vessels of LOA 210 m: Prior consultation shall be required when the vessels' draft is 10 m or more.
- (2) Vessels of LOA 236 m: Each time a vessel with draft of 9.90 m or more, or LOA exceeding 236 m, intends to berth and unberth, consultation is required.
- (3) Berthing: Possible only when the current velocity in Hayatomo Seto is 3 knots or less (4) Unberthing: Vessels of 5,000 G/T or more shall unberth when the current velocity in Hayatomo Seto is 3 knots or less.

Vessels of less than 5,000 G/T shall unberth when the current velocity in Hayatomo Seto is 5 knots or less.

#### 5. Nighttime Unberthing

- (1) Vessels should be less than 20,000 G/T.
- (2) Vessels of more than 5,000 G/T shall unberth when the current velocity in Hayatomo Seto is 5 knots or less, regardless of the flow direction.

#### 6. Limitation of LOA in case two berths are used simultaneously.

- · Shimonoseki Berths No. 12, 13: LOA up to 160 m or less
- · Shimonoseki Berths No. 15, 16: LOA up to 160 m or less

- · Shimonoseki Berths No. 20, 21: LOA up to 230 m or less
- · Shimonoseki Berths No. 24, 25: LOA up to 230 m or less

#### 5. MOJI DISTRICT

Mooring Facility	EDI Code	LOA (m)	Draft (m)	Night Entry	Night Departure
☆ Berth No. 1	MZ01C		9.0	less than	
☆ Berth No. 2	MZ02C		9.0	10,000 G/T	
Berths No. $3-7$	MZ03C - MZ07C		8.1	27.4	less than 20,000 G/T
Berth No. 8	MZ08C	approx. 150	9.2	Not Possible	,
Berth No. 9	MZ09C	approx. 170	10.0		
Berth No. 10	MZ10C	approx. 150	10.0		
Berth No. 11	MZ11C	180	9.0		
Berth No. 12	MZ12C		8.5		
Berth No. 13	MZ13C		8.5		

#### 1. Moji Berth

- (1) Vessels of 30,000 G/T or less may berth and unberth.
- (2) Vessels of less than 10,000 G/T may berth at Moji No. 1 and 2. Berths during nighttime only when the current velocity in Hayatomo Seto is 5 knots or less.
- (3) Berths No. 7, 8, 9, and 10

When the current runs from the stern at the time of unberthing, the current velocity in Hayatomo Seto must be less than 5 knots.

- (4) Berths No. 11, 12, and 13
  - Daytime berthing and unberthing by vessels of 10,000 G/T or more shall be carried out when the current velocity in Hayatomo Seto is 5 knots or less.
- (5) Nighttime Unberthing
  - 1) Vessels must be less than 20,000 G/T.
  - 2) Vessels of 5,000 G/T or more may unberth when the current velocity in Hayatomo Seto is 5 knots or less, regardless of the flow direction.

#### 6. TANOURA DISTRICT (TANOURA BERTH, OKUBO JETTY)

	Mooring Facility	EDI Code	LOA (m)	Draft (m)	Night Entry	Night Departure
☆	Tanoura Berth No. 2	TN02C		7.2	less than	Less than
☆	Tanoura Berth No. 3	TN03C		9.0	10,000 G/T	30,000 G/T

Tanoura Berth No. 4	TN04C		9.0		
Tanoura Berths No. 5, 6	TN05C TN06C		8.0		less than 30,000 G/T
Tanoura Berths No. 7, 8	TN07C TN08C		9.0	Not	(less than 60,000 G/T
Tanoura Anchorages No. $1-3$	IT01A - IT03A		9.0	Possible	for PCC)
Nippon <u>Vopac,</u> Marubeni Ennex Okubo Large Jetty (B)	TN53C	арргох. 160	9.1		less than 10,000 G/T

#### 1. Tanoura Anchorage

- · Anchorage No. 1 at 87° and 1,340 m from Moji Hesaki Lighthouse
- · Anchorage No. 2 at 83° and 1,770 m from Moji Hesaki Lighthouse
- · Anchorage No. 3 at 80° and 2,300 m from Moji Hesaki Lighthouse
- (1) Conditions for berthing at and unberthing from Tanoura Anchorage
  - Vessels of 15,000 G/T or more and less than 30,000 G/T may berth and unberth when the current velocity in Hayatomo Seto is 5 knots or less.
  - Vessels of 30,000 G/T or more may berth and unberth when the current velocity in Hayatomo Seto is 3 knots or less.
  - Vessels of 15,000 G/T or more shall arrange one tugboat for berthing and unberthing, except for vessels equipped with thrusters whose capacity is higher than those shown in Table 2 of the Tables of Standards for the Use of Tugboats in Kanmon Port.

#### 2. Tanoura Berth and Okubo Jetty

- (1) Arrangement of tugboats shall be in accordance with the decision of the Pilots Association.
- (2) Vessels of less than 10,000 G/T berthing during nighttime at Tanoura Berths No. 2 and 3 shall be carried out when the current velocity in Hayatomo Seto is 5 knots or less.
- (3) For unberthing, moving other vessels anchored in Tanoura Anchorage shall be the precondition.
- (4) Vessels of LOA 210 m or more berthing and unberthing during daytime
  - · Berthing: when current velocity in Hayatomo Seto is 5 knots or less
  - Unberthing: when current velocity in Hayatomo Seto is 5 knots or less. However, the current velocity must be 3 knots or less in case of heading toward Mutsure. Usage of tugboats by vessels equipped with thrusters (1,200 PS or more) shall be in accordance with the following:
  - () When turning is required: two large-size tugboats
  - ( ) When turning is not required: one large-size tugboat However, when the pilot deems it necessary depending on weather and sea conditions, two large-size tugboats shall be arranged.
- (5) Unberthing during nighttime

Unberthing during nighttime shall be carried out by vessels of 20,000 G/T or more and less than 30,000 G/T (less than 60,000 G/T in case of PCC vessels), or vessels of LOA less than 210 m when the current velocity in Hayatomo Seto is 3 knots or less.

#### 7. TANOURA DISTRICT (TACHINOURA BERTH)

Mooring Facility	EDI Code	LOA (m)	Draft (m)	Night Berthing	Night Unberthing
Tachinoura Berth No. 2	TU02C		9.0	Not Possible	Less than
☆ Tachinoura Berths No. 3 – 6	TU03C- TU06C		9.0	Less than 10,000 G/T	30,000 G/T
☆ Tachinoura Berth No. 7	TU07C	300	10.8	LOA 270 m or less	
☆ Tachinoura Berth No. 8	TU08C	300	10.8		
☆ Tachinoura Berths No. 30, 31, and 32	TU30C- TU32C	162	0.1	220  m or less for combined use of Berths $30-31$ $240  m$ or less for combined use of Berths $31-32$	
Tachinoura Berth No. 33	TU33C		9.1 (see note 4)	Not Possible	LOA 162 m or less
☆ Tachinoura Berth No. 34	TU34C			Less than 10,000 G/T	LOA 162 m or less

#### 1. Tachinoura Berth

- (1) Vessels of LOA 210 m or more may berth along and unberth from Tachinoura Berth during daytime when the current velocity in Hayatomo Seto is 5 knots or less.
- (2) Coordination with other vessels is necessary in case vessels with LOA 300 m intend to berth along Tachinoura Berth No. 7 or No. 8.
  - 1) When a vessel of LOA 300 m is moored at Tachinoura Berth No. 7, the vessel to be berthed along Tachinoura Berth No. 8 must be of LOA 170 m or less.
  - 2) When a vessel of LOA 300 m is moored at Tachinoura Berth No. 8, the vessel to be berthed at Tachinoura Berth No.7 must be of LOA 170 m or less.
- (3) Limitation of LOA in case two berths are used simultaneously
  - · Tachinoura Berths No. 30, 31: LOA shall be 222 m or less
  - · Tachinoura Berths No. 31, 32: LOA shall be 244 m or less
- (4) Although the standard draft of vessels to be berthed along Tachinoura Berths No. 30-34 is 9.1 m, it shall be 9.6 m if 10% of the draft can be secured as UKC during berthing, unberthing, and mooring.
- (5) Berthing during nighttime
  - Berthing during nighttime along Tachinoura Berths No. 3, 4, 5, 6, 28, and 34 shall be possible by vessels of less than 10,000 G/T only when the current velocity in Hayatomo Seto is 5 knots or less.
- (6) Except for unavoidable cases, berthing with turning shall not be performed when berthing along Tachinoura Berths No. 7, 8, 30, 31, and 32.
- (7) Unberthing during nighttime (except for container vessels)
  - 1) Unberthing during nighttime shall be possible by vessels of 20,000 G/T or more and less than 30,000 G/T (less than 60,000 G/T in case of PCC), or vessels of LOA less than 210 m, only when the current velocity in Hayatomo Seto is 5 knots or less.
  - 2) Arrangement of tugboats shall be in accordance with the decision of the Pilots Association.

(8) For container vessels berthing along Tachinoura Berths No. 7, 8, 20, 31, and 32, one must refer to Section . Reference, "Safety Manual for Container Ships Entering in/Departing from Tachinoura During Nighttime (Extract)".

## 8. CHOFU DISTRICT (IN ACCORDANCE WITH THE REPORT ON NAVIGATIONAL SAFETY MEASURES BY THE SEIBU ASSOCIATION FOR MARITIME SAFETY 2010)

Mooring Facility	EDI Code	LOA (m)	Draft (m)	Night Entry	Night Departure
Chofu Berth No.2	CH02C	165	6.75	Not	Not Possible
Chofu Berth No.3	СН03С	179.99	7.9	Possible	

- 1. For the draft, a vessel shall temper her draft with the tide, and the draft should always be kept more than 10% of the depth of water.
- 2. In case of vessels of LOA over 165 m and 179.99 m or less, use Berths No. 2 and No. 3 simultaneously.
- 3. For 30,000 DWT class cargo carriers, berthing and unberthing shall be carried out under the following conditions.
  - (1) Weather and sea conditions
    - · Wind velocity: average 10m/sec or less
    - · Visibility range: 1 mile or more
    - · Tidal period: 3 knots or less for entry; 5 knots or less for departure in Hayatomo Seto
  - (2) Time of berthing and unberthing shall be between sunrise and sunset.
  - (3) Arrangement for pilot: For entry and departure of a subject vessel, a pilot shall be aboard from the first entry of the captain to the port until one year has passed. Pilotage after this term shall be conferred and adjusted in accordance with the Shimonoseki City Port Authority, Kanmon Harbor Master, and the parties concerned, such as the Pilots Association.
  - (4) Tugboats: Subject vessels shall arrange two or more tugboats with 3,000 PS or more.
  - (5) Indication of shallow points
    - When the subject vessel tempers her draft 7.6 m 7.9 m in the tide and navigates in Chofu Passage, tugboats and other boats arranged for assisting maneuvers shall stand by on the points where the water is shallower than her draft, as an indication of the shallow points.
  - (6) Adjustment with other vessels
    - When the subject vessel tempers her draft  $7.6~\mathrm{m}-7.9~\mathrm{m}$  in the tide and navigates in Chofu Passage, for vessels of 500 G/T or more which are capable of receiving AIS information, adjustment shall be made with prior consultation among other port users in order to avoid meeting head-on with other vessels. And for vessels of less than 500 G/T, prior request for cooperation shall be made to avoid such head-on meeting.
  - (7) Precaution of the course ahead

In cases when the subject vessel tempers her draft 7.6~m-7.9~m in the tide and navigates in Chofu Passage, precaution should be taken to avoid meeting head-on with other vessels in the passage and have tugboats and other boats (arranged for assisting the vessel's maneuvers) watch the course ahead to prepare for unforeseen circumstances such as meeting other vessels head on in the Passage.

### V. TABLES OF STANDARDS FOR THE USE OF TUGBOATS IN KANMON PORT

In order to prevent any maritime casualties, and to secure the safety of vessel berthing and unberthing as well as the facilities in Kanmon Port, the standards for the use of tugboats for vessels of 1,000 G/T or more is hereby provided. However, the number of tugboats may be increased at the pilot's discretion, depending on sea and weather conditions, the vessel's ability to maneuver, circumstances of the berth, and others.

#### Description

1. Standard of tugboat types is as follows:

Large type	3,000 PS or more or thrust of 30 tons or more
Medium type	$1,000-3,000~\mathrm{PS}$ (excluding those whose thrust is $30~\mathrm{tons}$ or more)
Small type	Less than 1,000 PS

- 2. For the undermentioned vessels equipped with thrusters, the number of tugboats can be reduced by one from the standard both for berthing and unberthing, except for nighttime entry.
  - (1) For vessels of 20,000 G/T class or more: 1,200 PS or more
  - (2) For vessels of 10,000 G/T class or more: 1,000 PS or more
  - (3) For vessels of 6,000 G/T class or more: 800 PS or more
  - \*Reference: Efficiency of bow thruster

Speed	0 knot	1 knot	2 knots	3 knots	4 knots	5 knots
Efficiency	100 %	80 %	60 %	40 %	20 %	0 %

- 3. Standards for the arrangement of tugboats are as follows.
- (1) Kanmon District [areas excluding Wakamatsu District and Shinko Berth NO.1 (Choshu Dejima)

【Table 1】

Gross Tonnage of Vessel (G/T)	Number of Tugboats	Type of Tugboats
1,000 G/T or more; less than 4,000	1	Medium (or 2 small boats)
4,000 G/T or more; less than 7,000	2	Medium
7,000 G/T or more; less than 15,000	2	1 large and 1 medium (2,000 PS or more)
15,000 G/T or more; less than 30,000	2	Large
30,000 G/T or more; less than 50,000	3	Large 2 boats for vessels departing without turning
50,000 G/T or more	4	Large 3 boats for vessels departing without turning

- 1) Tugboats of 2,000 PS or more shall be arranged when the current velocity is 3 knots or more at each of the Tachinoura Berths No. 7 and 8; Moji Berths No. 7, 8, 9, and 10; and Shimonoseki Berths No. 24 and 25.
- 2) While approaching Tachinoura Berths No. 7 and 8

  Three tugboats shall be arranged for vessels of LOA 240 m or more. However, vessels equipped with thrusters of 1200 PS or more and vessels depart without turning, the number of tugboats can be reduced by one.
- 3) Vessels of less than 5,000 G/T may reduce the number of tugboats for unberthing by one when the anchor has been dropped upon berthing.

(2) Wakamatsu District (except for Hibiki Shinko District)

[Table 2]

Gross Tonnage of Vessel (G/T)	Number of Tugboats	Type of Tugboats
1,000 G/T or more; less than 3,000 G/T	1	Medium (or 2 small boats)
3,000 G/T or more; less than 7,000 G/T	2	Medium
7,000 G/T or more; less than 15,000 G/T	2	1 large and 1 medium (2,000 PS or more)
15,000 G/T or more; less than 30,000 G/T	2	Large
$30,000~\mathrm{G/T}$ or more; less than $50,000~\mathrm{G/T}$	3	Large 2 boats when turning is not necessary
50,000 G/T or more; less than 100,000 G/T	4	Large (see Note 1)
10,000 G/T or more	5	Large (see Note 2)
Oceangoing LNG	5	Large (see Note 3)

(Note 1) 4 large boats: Arrange escort boats separately when navigation on the right side of the Kanmon Passage is difficult. In case turning is not necessary for departure, three boats shall be arranged.

(Note 2) 5 large boats: One of the arranged tugboats shall be engaged in escorting duty for foresight watch while navigating in the Kanmon Passage.

(Note 3) 4 large boats: 2 escort boats (high-speed and large tugboat) shall be engaged in foresight watch duty and 2 of the tugboats should be Class 4 Firefighting Vessels.

When vessels of less than 5,000 G/T are berthed alongside while dropping anchor, one tugboat can be reduced on departure.

#### (2) Hibiki Shinko District

Gross Tonnage of Vessel (G/T)	Number of Tugboats	Type of Tugboats
1,000 G/T or more; less than 4,000 G/T	1	Small
4,000 G/T or more; less than 10,000 G/T	2	Medium
10,000 G/T or more; less than 85,000 G/T	2	Large (see Note 1)

(Note 1) For vessels of 60,000 G/T or more, tugboat horsepower shall be equivalent to 3,500 PS. For vessels of 40,000 G/T or more and less than 60,000 G/T with wind velocity of 10 m/sec or

more, and for the vessels of 60,000 G/T or more and less than 80,000 G/T with wind velocity of 8 m/sec or more, it may be necessary to consider increasing the number of tugboats.

- 1) The number of tugboats to be arranged may be in accordance with the following depending on the circumstances regardless of the standard.
- ① Vessels equipped with thrusters with sufficient thrusting power for their scale may decrease one tugboat from the standard number when the wind velocity is less than 8 m/sec, except for vessels of 4,000 G/T or less.

Thrusters' Necessary Effective Horse Power for the Scale of Vessels

Gross Tonnage of Vessel (G/T)	Thrusters' Necessary Effective Horse Power
1,000 G/T or more; less than 4,000 G/T	300 PS
$4,000~\mathrm{G/T}$ or more; less than $7,000~\mathrm{G/T}$	600 PS
$7,000~\mathrm{G/T}$ or more; less than $10,000~\mathrm{G/T}$	800 PS
10,000 G/T or more; less than 20,000 G/T	1,000 PS
20,000 G/T or more; less than 30,000 G/T	1,200 PS
$30,000~\mathrm{G/T}$ or more; less than $40,000~\mathrm{G/T}$	1,400 PS
$40,000~\mathrm{G/T}$ or more; less than $50,000~\mathrm{G/T}$	1,600 PS
$50,000~\mathrm{G/T}$ or more; less than $60,000~\mathrm{G/T}$	1,800 PS
60,000 G/T or more	2,000 PS

- ② Depending on weather, sea conditions, and circumstances of maneuvering (passing other vessels not in motion and turning around), the number and type of tugboats may be increased or decreased upon confirmation of the safety.
- ③ When a vessel of less than 7,000 G/T is berthed alongside while dropping anchor using 2 tugboats, one tugboat can be reduced on departure.
- When a vessel enters/departs the port during the nighttime, the above item 1 shall not apply.

(4) Shinko Berth NO.1 (Choshu Dejima)

Gross Tonnage of Vessel (G/T)	Number of Tugboats	Type of Tugboats
1,000 G/T or more; less than 4,000 G/T	1	Small
$4,000~\mathrm{G/T}$ or more; less than $10,000~\mathrm{G/T}$	2	Medium
10,000 G/T or more	3	Large

- 1) The number of tugboats to be arranged may be in accordance with the following, regardless of the standard.
- ① Vessels equipped with thrusters with sufficient thrusting power for their scale may reduce one tugboat from the standard number when the wind velocity is less than 8 m/sec, except for vessels of 4,000 G/T or less.

Thrusters' Necessary Effective Horse Power for the Scale of Vessels

Gross Tonnage of Vessel (G/T)	Thrusters' Necessary Effective Horse Power
1,000 G/T or more; less than 4,000 G/T	300 PS
4,000 G/T or more; less than 7,000 G/T	600 PS

7,000 G/T or more; less than 10,000 G/T	800 PS
10,000 G/T or more; less than 20,000 G/T	1,000 PS
$20,000~\mathrm{G/T}$ or more; less than $30,000~\mathrm{G/T}$	1,200 PS
30,000G /T or more	1,400 PS

- ② Depending on weather, sea conditions, and the circumstance of maneuvering (passing other vessels not in motion and turning around), the number and type of tugboats may be increased or decreased upon confirmation of the safety.
- ③ When a vessel of less than 7,000 G/T is berthed alongside while dropping anchor using 2 tugboats, one tugboat can be reduced on departure.
- (4) When a vessel enters/departs the port during the nighttime, the above item (1) shall not apply.
- (5) However, if a pilot is on board, the "Tables of Standards for the Use of Tugboats in Kanmon Port: Kanmon District (Table 1)" shall be applied.

#### VI. REFERENCES

#### 1. PILOTAGE LAW (EXTRACT)

- (1) Kanmon Pilotage Area (Article 3 of Enforcement Ordinance of Pilotage Law)
  Waters bounded by the following imaginary drawn lines and the shoreline including rivers which belong to Kanmon Port area (except for Aiware River): the line drawn from Ajirohana in Yamaguchi Prefecture to Myokensaki in Fukuoka Prefecture, the line drawn from Hesaki in the same prefecture to 5,000 m at 155°, and the line drawn from above position at 24°10′.
- (2) Compulsory Pilotage Areas (Article 4 of Enforcement Ordinance of Pilotage Law) Waters bounded by the following imaginary drawn lines and the shoreline including rivers which belong to Kanmon Port area (except for Aiware River): the line extending from the position of 2,530 m at 286° from Hesaki in Fukuoka Prefecture at 320°, the line drawn from the tip of the south breakwater of Minamihaedomari Breakwater in Yamaguchi Prefecture to the tip of the north breakwater of Minamihaedomari Breakwater in the same prefecture, the line drawn from Daibahana of Takenoko Shima in Yamaguchi Prefecture to the summit of Wagora Shima in Fukuoka Prefecture, the line drawn from the summit of Wagora Shima to the position of 2,940 m at 257°, the line drawn from the above position to the position of 1,700 m at 247°, the line drawn from the above position to the shoreline at 157°, and the line drawn from Hibikinada Ohashi in the same prefecture and the summit of Netake in Yamaguchi Prefecture to Tarogasehana in the same prefecture.
- (3) Compulsory Pilotage (Article 35 of Pilotage Law)
  - 1) When the captain of any of the following vessels (excluding those that belong to the Japan Coast Guard and those specified in the Ordinance of the Ministry of Land, Transportation, Infrastructure and Tourism and hereinafter the same shall apply) navigates in the port or waters in the Compulsory Pilotage Area, it shall be required to have a pilot on board pursuant to Article 4. The Compulsory Pilotage Areas are specified by the Ministry of Land, Transportation, Infrastructure and Tourism among Pilotage Areas.
  - 2) However, in the following cases, this provision shall not apply. When the vessel is a non-Japanese flag vessel or a chartered vessel (except for a term-chartered vessel) by a person who is entitled to own Japanese vessels, and the captain is certified by the District Transport Bureau (including the director of Transport Managing Department

and hereinafter the same shall apply) that he/she had engaged in navigation in the said ports or waters for more than the necessary amount of time predetermined by the Ordinances of the Ministry of Land, Transportation, Infrastructure and Tourism. Also, two years shall not have passed since the captain was certified by the director of the District Transport Bureau.

- ① Non-Japanese vessels of 300 G/T or more,
- ② Japanese flag vessels of 300 G/T or more engaged in navigation between Japanese ports and foreign ports,
- ③ Other than the above mentioned, Japanese vessels of 1,000 G/T or more.

Among ports and waters specified in the preceding Ordinance, there are traffic congested areas specified by the Ordinance. And among the vessels prescribed in the preceding paragraph, vessels which require a pilot on board can be specified separately by the Ordinance upon taking into account the following conditions: natural conditions of ports and waters, marine traffic conditions, situation of pilotage, and so on. In such a case, the provisions shall not apply to vessels which are not specified by the Ordinance in the said ports and waters.

(4) Special Provisions for Compulsory Pilotage (Article 35 of Enforcement Ordinance of Pilotage Law)

The ports and waters prescribed in Paragraph 2 of Article 35 of the Pilotage Law are listed in the Appended Table 2 of the Enforcement Ordinance, and the following table explains the ports and waters related to the Kanmon Compulsory Pilotage Area. Vessels which are required to have a pilot on board are also designated in the following table. When it is deemed that the vessel meets the standards for safe navigation at the same level as having a pilot on board and also meets the standards of the Ordinance of the Ministry of Land, Transportation, Infrastructure and Tourism such as vessel facilities and other conditions, pilot embarkation is exempted.

Ports or Waters	Vessels: Pilot Boarding is Required
Kanmon Special District 【Among the districts of Kanmon Area prescribed in Appended Table 2, those specified by the Ministry of Land, Transportation, Infrastructure and Tourism pursuant to the provision of Article 5-1 of Act on Port Regulations (Act No. 174 of 1948) and excluding the districts specified by the Ordinance of the Ministry of Land, Transportation, Infrastructure and Tourism】	Vessels of 10,000 G/T or more and vessels of 3,000 G/T or more and less than 10,000 G/T which do not pass through the Kanmon Area and vessels of less than 3,000 G/T loaded with dangerous cargo

- (5) Application of the Pilotage Law in Kanmon Port
- ① Waters to which the Compulsory Pilotage is applied

Waters: Wakamatsu Section No. 1, 2, 3 and 4

Vessels: 1. Non-Japanese flag vessels of 300 G/T or more,

- 2. Japanese flag vessels of 300 G/T or more which engage in the international voyages, and
- 3. Japanese vessels of 1,000 G/T or more which do not engage in international voyages. However, when the captain of the vessel obtains the pilot exemption certificate on operating the Japanese vessel, that vessel is exempted.

#### ② Kanmon Special District

Waters: Waters in the Compulsory Pilotage Area in Kanmon Port excluding Wakamatsu Section No. 1, 2, 3, and 4

Vessels: 1. Vessels of 10,000 G/T or more passing through the channel,

- 2. Vessels of 3,000 G/T or more entering/departing port,
- 3. Non-Japanese flag vessels of 300 G/T or more loaded with dangerous cargo,
- $4.\ Japanese$  flag vessels of 300 G/T or more loaded with dangerous cargo and engaged in international voyage, and
- 5. Japanese vessels of 1,000 G/T or more loaded with dangerous cargo not engaged in international voyage.

### 2. OUTLINE OF THE GUIDELINES FOR ENTERING WAKAMATSU DISTRICT OF KANMON PORT DURING NIGHTTIME

(Western Area Maritime Affairs Council) Put into effect on November 1, 2005

Revised in July 2012

#### 1. Applied Berth for Nighttime Entry

Berths for nighttime entry should be equipped with lighting systems and able to be well recognized at night and also be designated in the "Attached Sheet 1 of the Guidelines for Entering Wakamatsu District of Kanmon Port During Nighttime".

- 2. Vessels for Nighttime Entry
- (1) Wakamatsu Section No. 1: vessels with LOA 100 m or less
- (2) Wakamatsu Section No. 4 (applies only to Seitetsu Uchiura Berth Nos. 3 5), Section No. 5 (except for Sakaigawa Hakuchi), Section No. 6: Vessels with LOA 130 m or less
- (3) Wakamatsu Section No. 5 (applies only to Sakaigawa Hakuchi): Vessels of LOA 80 m or less
- (4) Other than the above mentioned in (1) (3): Vessels with LOA 115 m or less
  - \* When a pilot is on board, these provisions are applied based on the "Standards for Undertaking Pilotage Service and Table of Standard Draft and Types of Vessels Entering and/or Departing Kanmon Port".
- 3. Available Time for Entry at Night

The time for nighttime entry for each Section is as follows:

- (1) Wakamatsu Section No. 1 No. 5 (except for Tobata Hakuchi and Sakaigawa Hakuchi): period of time in accordance with the control signals of the Wakamatsu Port Traffic Control Office
- (2) Wakamatsu Section No. 5 (only for Tobata Hakuchi and Sakaigawa Hakuchi) and Section No. 6: berthing is possible any time from sunset to sunrise
- 4. Weather and Sea Conditions

Average wind velocity: 10 m/sec or less

Visibility range: 1,000 m or more

5. At the time of requesting a pilot, prior consultation with the Pilots Association is required to confirm the experience of berthing during daytime, maintenance status of the vessel facilities, standards for use of tugboats for nighttime berthing, and so on.

### 3. OUTLINE OF THE GUIDELINES FOR ENTERING KANMON PORT (MOJI, SHIMONOSEKI DISTRICT) DURING NIGHTTIME

(Council on Safety Measures for Nighttime Entry in Kanmon Port)

Put into effect on November 1, 2005

#### 1. Mooring Facilities for Nighttime Entry

Mooring facilities for nighttime entry are designated by the Council on Safety Measures for Nighttime Entry in Kanmon Port following investigation and examination and also upon the examination of safety measures by the committee of the Seibu Association for Maritime Safety.

\* Those facilities are prescribed in the "List of Mooring Facilities for Nighttime Entry in Kanmon Port (Moji, Shimonoseki Districts)"

#### 2. Vessels for Nighttime Entry

#### Common Provisions

- (1) According to the guidelines, vessels for nighttime entry shall be of 500 G/T or more.
- (2) These guidelines shall be applied to vessels entering the port from sunset to sunrise.
- (3) Vessels shall not be loaded with dangerous cargo (except as permitted by the harbor master).
- (4) Vessels shall not have low maneuverability, such as massive vessels (except in cases when the committee makes special safety measures for them).
- (5) For applicable vessels with a pilot on board, navigation shall be operated in accordance with the "Table of Standard Draft and Types of Vessels Entering and/or Departing Kanmon Port" (issued by the Kanmon Harbor Pilotage and Related Committee Association).
- (6) For vessels entering the port during the nighttime, the type of vessel and navigation environment are taken into consideration, and when the council deems it necessary, the administrator of the mooring facility shall hold a meeting and examine the safety measures.

#### 3. Conditions and Safety Measures for Nighttime Entry

#### Common Provisions

- (1) Experience of entering the port by the captain when the vessel is less than 3,000 G/T For nighttime entry, the captain is required to have sufficient experience of entering the port as follows. When a pilot is on board, this shall not apply.
  - ① In the past one year, the captain has experienced entering the planned mooring facility or neighboring area at least two times.
  - ② The captain's previous entry was within the past one year and has experienced entering the port for a total of at least three times within the past two years.
  - \* The mooring facilities described as "neighboring areas" shall be in accordance with the Appended Table 2 "Table of Mooring Facilities Categorized as Neighboring Areas".
- (2) Weather and Sea Conditions (except for passenger liners)

Wind velocity: average 12 m/sec or less

Wave height: 1 m or less

Visibility range: 1,000 m or more

(3) Lighting Facilities of the Mooring Facility

Permanent or movable lighting facilities should be equipped which are capable of confirming the coastline.

(4) Report of entry/departure

Vessels entering the port during nighttime are required to report to the Kanmon Kaikyo Vessel Traffic Service Center in advance and must monitor International VHF Channel 16 and keep contact with the Center.

(5) Effective Use of AIS

Vessels equipped with AIS should utilize AIS properly.

Vessels without AIS are requested to equip themselves with AIS if at all possible.

- (6) Safety Measures based on the deliberations by the Committee on Maritime Safety When container berths have the "Safety Manual for Entering Port During Nighttime" specially made for them by the committee following the deliberations, they will apply the Manual.
- (7) Recommendation of Requesting a Pilot

Even when it is not mandatory to have a pilot on board, it is recommended to request a pilot if at all possible.

4. Nighttime Entry to Mooring Facilities not Prescribed on the List of Mooring Facilities During Nighttime

When it is unavoidable to berth at night in the mooring facility which is not on the list (mooring facilities prescribed on the Appended Table stipulated on provision II) by the committee, vessels shall meet the following standards:

- (1) Vessels shall be subject to the Guidelines and of 1,000 G/T or less.
- (2) Vessels should meet the common conditions for the nighttime entry and safety measures provided by these Guidelines and have a pilot on board.

In this case, the administrator of the facility is required to report to the committee office in advance and be approved.

\* As for container berths, the "Safety Manual for Nighttime Port Entry/Departure" shall apply.

### 4. SAFETY MANUAL FOR CONTAINER SHIPS ENTERING IN/DEPARTING FROM TACHINOURA DURING NIGHTTIE (EXTRACT)

(Kitakyushu Seaport and Airport Bureau)

December 10, 2007

Partially Revised on July 1, 2013

Regarding nighttime berthing/unberthing at Tachinoura Berth No. 7, 8, 30, 31 and 32, these guidelines are applied to vessels berthing/unberthing from sunset to sunrise (nighttime), and vessels should comply with following provisions.

#### (1) Limitation on vessel types

- 1. At Tachinoura Berth No. 7 and 8, vessels shall be of LOA 270 m or less in principle. When vessels berthing along the starboard side and unberth toward Hesaki, LOA shall be 270 m or less.
- 2. When Tachinoura Berth No. 30 and 31 are used as one berth, in principle, LOA shall be 220 m or less.
- 3. When Tachinoura Berth No. 31 and 32 are used as one berth, in principle, LOA shall be 240 m or less.
- 4. At Tachinoura Berths 7, 8, 30, 31 and 32, turning shall not be done unless it is unavoidable.

#### (2) Embarkation of a Pilot

At the time of berthing/unberthing, for securing the safety of container ships, a pilot shall be on board. Although this shall not apply to the vessels which meet the following conditions, a pilot should be requested if at all possible.

#### 1. For berthing:

Vessels of less than 5,000 G/T and its captain has the requisite experience of berthing.

#### 2. For unberthing:

Vessels of less than 5,000 G/T or vessels of 5,000 G/T or more and less than 10,000 G/T which are unberthing toward Hesaki. Also, the captain has the requisite experience of berthing/unberthing.

"Requisite experience" is defined as follows:

- \*the captain should have experience of berthing at the intended berth or neighboring
- ① In the past one year, the captain has experienced berthing there at least two times.
- ② The previous entry was within the past one year and has experienced berthing for a total of at least three times within the past two years.

#### (3) Use of Tugboats

In principle, for unberthing, powerful tugboats shall be arranged as assistance as follows.

When a pilot is requested, "the Standards for Undertaking Pilotage Service" are applied: i. For berthing:

- (1) Vessels of less than 5,000 G/T: arrange 1 tugboat
- (2) Vessels of 5,000 G/T or more: arrange 2 tugboats ii.

#### For unberthing:

Vessels of 5,000 G/T or more: arrange 1 tugboat

#### (4) Arrangement of Escort Boats

① For unberthing of container ships of 5,000 G/T or more, 1 escort boat equipped with searchlights and loud speaker shall be arranged in order to let other vessels

- passing near the container berth know the navigation of the container ship and to secure the safety of both vessels and also give the information of the tide conditions near the berth to the container ship. When turning is necessary for unberthing, 1 tugboat shall be arranged.
- ② When container ships of 30,000 G/T or more pass through Kanmon Channel for berthing at night, 1 escort boat for foresight watch shall be arranged from the northern tip of Kanmon Passage in the east of Mutsure Shima to the front of Tachinoura Berth.

#### (5) Weather and Sea Conditions

- (1) Wind velocity: average 12 m/sec or less
- ② Tidal current

Berthing: LOA less than 240 m, current velocity at Hayatomo Seto is 5 knots or less; LOA 240 m or more, current velocity at Hayatomo Seto is 3 knots or less.

Unberthing: LOA 210 m or more, current velocity at Hayatomo Seto is 5 knots or less, except for unberthing toward Hesaki from Tachinoura Berths No. 7, 8, 30, 31 and 32.

③ Visibility range

Vessels of 10,000 G/T or more: 1 mile (1,852 m) or more

Vessels of less than 10,000 G/T: 1 km or more

- 4 Berthing speed: 10 cm/sec or less
- 5 Wave height: H 1/3 1.0 m or less

Even though the abovementioned conditions are met, when there is the possibility that its safety is not secured, berthing shall not be conducted.

#### (Reference)

Distance between vessels:

LOA less than 200 m: 50 m or more shall be secured

LOA 200 m or more and less than 240 m: 70 m or more shall be secured

LOA 240 m or more: 100 m or more shall be secured

#### (Daytime):

LOA 260 m or more: 60 m or more shall be secured LOA 270 m or more: 70 m or more shall be secured

### 5. GUIDELINES FOR SAFETY MEASURES FOR NIGHTTIME ENTRY IN CHOSHU DEJIMA

(Shimonoseki City Port & Harbor Bureau) Enacted on May 15, 2017

The aim of this manual is to secure the safety of the subject vessel and other vessels passing in nearby waters by explaining the way in which the vessel berths and procedures related to berthing during nighttime at Shinko Berth No. 1 of Choshu Dejima (Shinko District of Shimonoseki Port).

#### I. Safety Measures for Vessel Navigation

Vessels entering at night shall comply with following provisions.

#### 1. Limitation on Vessel Type

In principle, vessel type entering Shinko Berth No. 1 shall be less than 15,000 G/T. And the vessel shall not make any turning maneuvers.

#### 2. Captain's Experience of Port Entry

For nighttime entry, the captain is required to have experience of berthing at the planned berth or neighboring area. When the captain has no experience, it is required to request a pilot.

- (1) In the past one year, the captain has experienced entering at least two times.
- (2) The previous entry was within the past one year, and the captain has experienced entering the port a total of at least three times within the past two years. However, even when the captain has the abovementioned experience, a pilot shall be requested if at all possible.

#### 3. Use of Tugboats

For berthing, the appropriate number and size of tugboats shall be arranged based on "the Operational Standards of Facilities of VI Reference 3". However, when a pilot is on board, the "Table of Standards for the Use of Tugboats in Kanmon Port" shall apply.

#### 4. Arrangement of Escort boats

For berthing, one (1) escort boat equipped with necessary devices (searchlight, loudspeaker, and communication system) shall be arranged in order to let other vessels navigating waters in front of Shinko Berth No. 1 know the navigation of the vessel and secure the safety of both vessels and also give the information of the tidal conditions and navigation environment in Hakuchi (situation of anchoring vessels and fishing facilities outside anchorage) near the berth to the container ship. Additionally, one of the escort boats can function as a lineboat.

#### 5. Meeting Other Vessels Head-on

Vessels berthing at night should obtain enough information about the other vessels passing in advance and carefully navigate. Escort boats and tugboats shall watch carefully for vessels passing through Kanmon Passage at the time of berthing of the subject vessel.

#### 6. Communication with the Kanmon Kaikyo Vessel Traffic Service Center

Vessels berthing during nighttime are required to report to the Kanmon Kaikyo Vessel Traffic Service Center in advance and must monitor International VHF Channel 16 and keep contact with the Center during the navigation.

Also, vessels equipped with AIS shall confirm the proper input of data (destination, estimated time of arrival, etc.) and maintain radio transmission as well as receive messages from the center.

#### 7. Weather and Sea Conditions

Wind velocity: 12 m/sec or less Visibility range: 1,000 m or more Wave height: H 1/3 1.5 m or less

Even though the abovementioned conditions are met, when there is a possibility that safety is not secured, berthing shall not be conducted.

#### 8. Berthing Conditions

Berthing Speed: 10 cm/sec or less

\* In order to keep a safe speed, the person in charge of steering shall obtain all the necessary information about approaching speed and distance to the opposite shore. Berthing Angle: 5° or less

#### II. Safety Measures at the Berth and International Cargo Terminal

Safety Measures at the Berth and International Cargo Terminal shall comply with the following.

#### 1. Assignment of Supervisory Manager

For berthing of the vessel, a supervisor shall be assigned by the Port & Harbor Bureau manager and he/she can communicate with the vessel at the berth side.

The supervisory manager shall be in charge of communication with the vessel and clearly point out the berthing position, checking the safety of small size vessels which are passing near the berth and neighboring area and in front of the berth. If it is necessary, he/she shall command the person concerned to confirm the safety and give as much information as possible upon the request of the vessel.

#### 2. Obtaining Necessary Information and Confirmation

From the supervisory manager waiting at Shinko Berth No. 1, the pilot or captain shall obtain information such as receiving conditions at Shinko Berth No. 1 and try to secure its safety.