

SAN FRANCISCO BAR PILOTS

OPERATIONS GUIDELINES

FOR THE MOVEMENT OF VESSELS

ON SAN FRANCISCO BAY AND TRIBUTARIES

June 18, 2014

*The only change from 1-29-14 version is on **page 15, 20(d) Avon/Martinez.***

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To Our Valued Customers:

The members of the San Francisco Bar Pilots are charged under the laws of the State of California with providing a safe and efficient pilot service. To accomplish these goals, we have identified certain operational procedures that we ask that you assist us in adhering to when scheduling our services. For all movements we request that you provide the following information when ordering a pilot:

1. date and time the pilot will be required; for arrivals the request for a pilot should be made a minimum of 24 hours in advance with an update of ETA 12 and 4 hrs. prior to arrival. For river transits, the request should be made a minimum of 8 hours in advance. For all other sailings, the request should be made a minimum of 4 hours in advance.
2. vessel's arrival draft, and for vessels going above UPRRB, fresh water draft and air draft;
3. berth(s) and side to;
4. the name of the company and the tug boats that will be supplied;
5. length, breadth and air draft of vessel; any reference to PANAMAX Class means a vessel of about 750' loa and 106' beam (a vessel's trim can significantly affect the air draft and masters/agents must be alert to this);
6. availability and HP of an operational bow thruster; and
7. any special requirements or problems affecting the vessel
8. Flat tows/dead ship tows must be provided with a master or person in charge and riding crew. The San Francisco Bar Pilots will fax a copy of flat tow policy to anyone contracting or planning a flat tow as soon as the dispatcher or Operations Pilot receives an order or a request for information.
9. Pilot ladders must comply with SOLAS regulations.
10. The Harbors and Navigation Code, Division 5, section 1198, gives every vessel, and its owner, operator and/or charterer a choice of options for protecting pilots from liability. Pilots are required to have available "trip" insurance for purchase by those hiring a pilot. The trip insurance protects the pilots from liability that may be incurred in connection with the provision of pilotage service. Trip insurance is available from the SFBP upon advance written request. Alternatively, if a vessel and its owner, operator and/or charterer do not wish to purchase the trip insurance, then by law they are deemed to have agreed to defend and indemnify the pilot hired, as well as the SFBP and those associated with it, from all liabilities that may arise in connection with the provision of pilotage. Protecting the pilots from liability by choosing from the options described herein is required both by statute, and as a contractual condition.

IMPORTANT: READ CAREFULLY

These guidelines are intended for planning purposes only. They have been developed to assist dispatchers and vessel agents in planning for local vessel movements. These guidelines are not intended, nor should they be construed, as a representation of minimum or maximum requirements or a warranty that, if the recommendations outlined in the guidelines are met, an operation can be successfully performed. IN ANY EVENT, NO REPRESENTATION OR WARRANTIES OF ANY SORT ARE MADE

OR INTENDED BY THE SAN FRANCISCO BAR PILOTS OR ANY OF ITS MEMBER PILOTS BY THESE GUIDELINES NOR UNDER ANY ARRANGEMENTS THAT MAY BE AGREED TO.

In each instance, the individual pilot who is assigned to the vessel will determine whether the planned operation can be successfully completed with the resources allocated. Please note that actual conditions may preclude the performance of the movement as planned. For those reasons, it is the vessel agent's responsibility to contact the pilot office, the operations pilots and the pilot assigned to the vessel to determine whether in his or her opinion the resources provided will be satisfactory and also to be prepared to assist the pilot with additional resources if needed.

In addition, each vessel has its own peculiar handling characteristics. Some vessels, because of their handling limitations, will need additional tugs or other resources, and in some instances, will not be able to be moved under all conditions. The vessel agent should provide complete details to the pilot office and to the pilot assigned of the vessel's handling characteristics in order to assist both in planning and the performance of actual piloting operations.

Recommendations for tug/thruster requirements.

Members of the San Francisco Bar Pilots Association are licensed by the State of California to help provide safe navigation of vessels on the navigable waters of San Francisco Bay and its tributaries. An integral part of this responsibility is for pilots to use tugs with sufficient capabilities to assist in escorting and maneuvering vessels to and from their berths.

Towards that end, to ensure the safety of the tug crews and the ship being navigated, the term "tractor tug", when required, will be defined as:

A tractor tug is a tug powered by two or more omni-directional thrusters capable of applying steering and braking forces to the ship via a towline at speeds of five knots and more. For safety, the towline's length needs to be adjustable using a winch that is controlled by the tug's crew from the safety of the tug's wheelhouse. Because of the exceptional maneuverability of these boats, and the tight quarters of many of the waterways and berths in the San Francisco pilot's jurisdictions, the tug's wheelhouse should afford the tug operator a near 360° view (masts, exhausts and other small items may restrict the view of a few degrees) so that he or she can see all that he or she needs to see without leaving the tug's controls.

In addition to the tug recommendations noted in these guidelines, some terminals define power requirements for tugboats being used to assist vessels moving to or from their facilities.

These guidelines are based on typical fair weather conditions. There may be special circumstances, including conditions of tide, current, wind and weather or other unusual operating parameters when the Operations Pilot or assigned pilot may require additional tugs or particular technology.

In order not to be unduly inflexible regarding tug requirements, it is impossible to set rigid rules in most cases. Previous experience and practices should be one of the guidelines. The Operations Pilot should be consulted in the cases where the draft is more than usual, in cases of unusual or severe weather or where strong tidal current may adversely affect the operation.

Tugs within a class are not necessarily the same and, occasionally, specific tugs may be requested due to their particular design, type of propulsion, deck machinery or number of propellers. Bow and stern thrusters should be considered an aid and do not necessarily replace a tug whether it is due to lack of horsepower or other inherent limitations.

We have set forth a number of recommendations that you should employ for long term and general planning purposes. Under most circumstances, any problems with implementing these recommendations can be resolved by prior consultation with the Operations Pilot. However, since the pilot to whom the vessel is assigned is responsible to advise the master of the vessel and must evaluate each move considering the circumstances at a particular time, it may be necessary for the Operations Pilot to refer you to that pilot or another familiar with the area to respond to your request. In any event, you should notify the Operations Pilot of any potential problems as soon as possible to avoid misunderstandings or delays. The final determination as to the adequacy of the tugs and bow thruster is the responsibility of the pilot assigned to the job.

Tugs are listed in classes according to “bollard pull”, as certified by ABS or other appropriate authority. Bollard pull is used rather than horsepower because it is the only meaningful way to rate a tug’s efficiency. Additionally, the tug’s design type, such as tractor, twin screw or single screw, and the addition of kort nozzles and flanking rudders has a definite effect on the utility and efficiency of a particular tug. Use of any tug that has not been rated must be cleared by the Operations Pilot or the assigned pilot.

Tug Class Ratings:

Class	Minimum Bollard Pull [in Pounds]	
	Ahead	Astern
A+*	100,000	100,000
At	85,000	55,000
A	85,000	55,000
B	60,000	45,000
C	35,000	20,000
D	20,000	10,000

* A+ Class boat must be a tractor tug.

Thrusters must meet the following minimum requirement of available horsepower to substitute for a tug:

<u>Vessel’s LOA in feet (meters)</u>	<u>Available Horsepower</u>
more than 1000’ (305m.)	no substitute
900’ - 1000’ (274.3 m. - 305m.)	2,500
750’ - 900’ (228.6 m. - 274.3 m.)	2,000
550’ - 750’ (167.6 m. - 228.6 m.)	1,200
less than 550’ (167.6 m.)	750

Note: It is the responsibility of the Vessel’s Master, Owner or Agent to notify the Pilots of the available horsepower of the bow thruster. If this information is not provided, the bow thruster will be considered inadequate to substitute for a tug.

SAN FRANCISCO BAR AND BAY

1. General

- a. Situations requiring special considerations should be discussed beforehand with the Operations Pilot, and if necessary, the pilot involved.
- b. As a rule, Down-tide landings are not recommended, therefore, the vessel's ETA should be adjusted in order to dock into the current.

- c. Negative trim adversely affects vessel handling and is discouraged. In the event that it is necessary to move a vessel that has a negative trim the Operations Pilot or the pilot involved should be notified in advance as it may be necessary to time the movement to insure favorable tide/current, etc.
- d. Storing underway is not recommended for vessels arriving or departing. Vessels should proceed to Anchorage 8 or 9 for storing.

2. Minimum Underkeel Clearance (UKC)

Except as otherwise stated in this section, the minimum static under keel clearance (UKC) for any piloted vessel anywhere on the pilotage grounds shall be as follows:

- i. Two feet for non-tank vessels.
- ii. Three feet for tank vessels requiring a tug escort.
- iii. Three feet for loaded anhydrous ammonia vessels.

Any vessel owner, operator or Master who requires minimum UKCs greater than the recommendations found in this section should communicate those greater UKCs to the Operations Pilot well in advance of the time of the vessel's arrival for an inbound transit, and prior to the vessel loading for an outbound transit.

- a. All vessels, when transiting the Main Ship Bar Channel shall have a minimum 10 feet UKC. Large, deep draft vessels may experience delays during periods of severe weather.
- b. Ships arriving with a draft of over 45 feet should arrive at the pilot station one hour prior to high water at the Golden Gate. Any exceptions should be cleared with the Operations Pilot to ensure adequate UKC .
- c. All vessels, when transiting Oakland Inner and Outer Harbor Channels, shall have a minimum 4 feet UKC based on "Oakland Matson Wharf" or "Oakland Inner Harbor, LT 5".
- d. At final approaches to berths and at berths, all vessels shall always be afloat.
- e. Vessels arriving in Anchorage 9 with a draft more than 42.0ft may require a tug assist in some cases. Consult the Operations Pilot before arrival.

3. Vessels Carrying Hazardous Materials

- a. Movements of all vessels carrying hazardous materials should comply with all applicable Coast Guard regulations.

4. San Francisco Bay, Islais Creek

- a. Tug Requirements for vessels arriving and departing Berths in Islais Creek:

Vessels arriving at Berths 80 A-B and 92 will require two tugs regardless of bow thruster as follows:

Vessel's LOA in Feet (Meters)	Draft in Feet (Meters)	Tugs
more than 700' (212.2)	any draft	At A
600' - 700' (181.8 - 212.2)	more than 30' less than 30'	At B A B
up to 600' (181.8)	any draft	B B

- b. Vessels with a draft of 30-34 ft. or greater than 600' LOA should avoid arriving at the berth within one (1) hour of maximum ebb current.

Vessels with a draft of greater than 34 ft. or greater than 700' LOA should arrive at the berth within one (1) hour of slack water.

Vessels that cannot meet these arrival time requirements may require larger or more tugs. Consult with the Operations Pilot.

- c. Any vessel wishing to pass another berthed vessel or any vessel wanting to berth P/S to MUST contact the Operations Pilot with all the pertinent information in a timely manner (24 hours pre-arrival). Once this information is received a determination will be made as to the feasibility, and if approved, arrival/departure times and tug requirements will be given at that time.
- d. Vessels departing Berths 80 A-B and 92 may eliminate the smaller tug if they have an adequate bow thruster, as set forth in these guidelines.
- e. Vessels arriving S/S to at Berths A-B, with BT, ST and Becker Rudder with a draft of < 27' may eliminate the smaller tug.

5. **San Francisco Bay, Piers 94 and 96**

- a. Vessels with draft of 35' and greater will require 2 tractor tugs on arrival.
- b. Consult with the Operations Pilot regarding tug requirements on all other vessels.

6. **Oakland Inner and Outer Harbor**

- a(1). For vessels transiting Oakland Outer Harbor and Oakland Inner Harbor requiring turn:

Vessel's LOA in Feet (Meters)	Draft in Feet (Meters)	Tugs
more than 1150' (350.65)	any draft	(2) 80t and (2) 50t plus BT
1115' - 1150' (340 - 350.65)	any draft	A+A+A+A+ plus BT
1000'- 1115' (304 m. - 340)	any draft	A+ A+ A plus BT
900' – 1000' (274.3 m. – 304)	more than 38' (11.59)	A+ A+ plus BT
900' – 1000' (274.3 m. – 304)	less than 38' (11.59)	A+ At plus BT
750' - 900' (228.6 m. - 274.3)	more than 35' (10.67)	AA plus BT
750' - 900' (228.6 m. - 274.3)	less than 35' (10.67)	AB plus BT

550' – 750' (167.6 – 228.6)	more than 32' (9.75)	BC or B plus BT
550' – 750' (167.6 – 228.6)	less than 32' (9.75)	CC or C plus BT
less than 550' (167.6)	All	CC or C plus BT

OIH: Vessels with an LOA of 1115' or more will require Daylight (DLO) to turn.

OOH: Vessels with an LOA of 1115' or more will require Daylight (DLO) to turn

- a(2). For vessels transiting inbound Oakland Outer Harbor and Oakland Inner Harbor no turn required:

Vessel's LOA in feet (Meters)	Draft in feet (Meters)	Tugs
more than 1150' (350.65)	any draft	A+A+A+ plus BT.
1000' to 1150' (304-340)	any draft	A+ A+ plus BT.
up to 1000' (304)	more than 38' (11.59)	2 tugs per the guidelines regardless of BT

- a(3). For vessels transiting outbound Oakland Outer Harbor and Oakland Inner Harbor no turn required:

Vessel's LOA in feet (Meters)	Draft in feet (Meters)	Tugs
more than 1200' (350.65)	any draft	A+A+A+ plus BT.
1000' to 1200' (304-340)	any draft	A+ A+ plus BT.

- b. Vessels requiring 2 Class A+ tugs may substitute 2 Class A tugs for the forward Class A+ tug in some cases – consult Operations Pilot. Vessels without a fully operational Bow Thruster should consult with Operations Pilot for additional tug requirements.

- c. Vessels docking or undocking without turning may eliminate the smaller tug if they have an adequate bow thruster meeting the minimum requirements set forth in these guidelines, with the following exceptions:

Vessels docking/undocking at berths 35-37

During periods of adverse weather conditions, such as strong winds, storm fronts and rain squalls.

- d. Vessels with bow and stern thrusters may, in some cases, dock/undock without tugs if the thrusters meet the minimum requirements set below, except vessels over 900' with bow and stern thrusters will require 1 Class A tug for docking.

- e. Vessels under 600' undocking without turning may, under certain circumstances, use one tug or bow thruster (meeting minimum requirements) only after consulting the Operations Pilot or pilot assigned to the job.
- f. Vessels wishing to dock starboard side to berths 35/37 or port side to berths 55/56 should consult the Operations Pilot for tug requirements. Vessels should be docked with minimal current. A tractor tug may be required at times other than slack water.
- g. Draft/Current Matrix for OOH and OIH. All current based on predictions for OOH station. No restrictions for vessels less than 900' LOA.

OOH

Vessels from 900' to 1000' LOA

DRAFT	<u>INBOUND</u>		<u>OUTBOUND</u>
	EBB	FLOOD	FLOOD or EBB
Less Than 40'	1.75 K	2.25K	N-R
40' – 43'	1.5 K	2.0 K	N-R
43' – 45'	1.25 K	1.75 K	2.0 K
45'+	1.0 K	1.5 K	1.75 K

OOH

Vessels 1000' to 1115' LOA

DRAFT	<u>INBOUND</u>		<u>OUTBOUND</u>
	EBB	FLOOD	FLOOD or EBB
Less than 40'	1.5 K	2.0 K	2.25K
40' – 43'	1.25 K	1.75 K	2.0 K
43' – 45'	1.0 K	1.5 K	1.75 K
45'+	.75 K	1.0 K	1.5 K

OOH

Vessels 1115' to 1205' LOA

DRAFT	<u>INBOUND or OUTBOUND</u>	
	EBB	FLOOD
N/A	0.0 K	1.0 K

OIH
Vessels from 900' to 1000' LOA

DRAFT	<u>INBOUND</u>		<u>OUTBOUND</u>
	EBB	FLOOD	FLOOD or EBB
40' – 43'	N-R	N-R	N-R
43' – 45'	2.0 K	1.5 K	2.5 K
45'+	1.75 K	1.25 K	2.25 K

OIH
Vessels 1000' to 1115' LOA

DRAFT	<u>INBOUND</u>		<u>OUTBOUND</u>
	EBB	FLOOD	FLOOD or EBB
Less than 40'	N-R	2.0 K	N-R
40' – 43'	2.0 K	1.5 K	2.5 K
43' – 45'	1.75 K	1.25 K	2.25 K
45'+	1.5 K	1.0 K	2.0 K

OIH
Vessels 1115' to 1205' LOA

DRAFT	<u>INBOUND or OUTBOUND</u>	
	EBB	FLOOD
N/A	1.0 K	1.0 K

h. See Addendum 2 for USCG recommendations for bunkering operations at berths 35/37.

7. **Redwood City**

Tug requirements for vessels arriving and departing Redwood City are as follows:

<u>Vessel's LOA in Feet (Meters)</u>	<u>Draft in Feet (Meters)</u>	<u>Tugs</u>
more than 750' (228.65)	Any	At At
700' - 750' (212.3 - 228.65)	Any	At A
600'-700' (183 - 212.3)	Any	A B
up to 600' (183)	Any	B B

- a. Maximum drafts for Redwood City will be calculated on the height of tide one hour on either side of high water at Redwood Creek Marker #8.
- b. Weather permitting, vessels departing without turning may eliminate the smaller tug if they have an adequate bow thruster as set forth in these guidelines.
- c. Vessels over 700' LOA may be required to transit Redwood Creek during daylight hours only regardless of draft.

8. Richmond Chevron Long Wharf (Chevron Long Wharf Guidelines)

- a. It is recommended that vessels docked port side to at RLW1, 40K DWT and above, and vessels docked port side to at RLW2, 3 and 4, 80K DWT and above, sail on flood currents only. (Chevron Long Wharf recommendation)
- b. For 188,000 DWT tankers, see Addendum 1-B.
- c. Chevron Long Wharf minimum tug requirements will be applied to all routine ship movements. See Addendum 1A for Chevron [RLW] minimum tug requirements.
- d. See Addendum 1 for Recommended Guidelines for Separating Arrivals and Departures at Richmond Long Wharf.
- e. It is recommended that vessels docking with a draft of 38 feet or greater use a minimum of three tugs, two Class A and the third of Class B or two Class A tractors.
- f. It is recommended that vessels docking at the Long Wharf plan their approach to arrive at the Long Wharf no later than one-half hour prior to or no earlier than one-half hour after slack tide, based on Richmond current station 14(d), in order to avoid arrival at slack water.
- g. It is recommended that vessels berthing at Chevron Richmond Long Wharf Berth #1, with an LOA greater than 750 feet, moor port side to only. Any vessels wishing to moor S/S to at Berth 1 must have pre-approval from RLW. If it is necessary for a vessel with an LOA greater than 750 feet to moor starboard side to in Berth #1, vessel will, at a minimum, be required to run an additional forward spring line leading aft.
- h. Vessels may use 2' UKC in the maneuvering area approaching or departing the RLW in accordance with RLW guidelines.

9. Richmond Inner Harbor

- a. Tug requirements for vessels arriving and departing Richmond Inner Harbor:

Vessels up to 600' LOA:	AB
Vessels over 600' LOA:	AA
Vessels over 700' LOA:	At A
Vessels over 800'LOA:	A+ A+
- b. Weather permitting, vessels undocking without turning may eliminate the smaller tug if they have an adequate bow thruster, as set forth in these guidelines.

- c. It is recommended that vessels greater than 650' LOA be turned at Pt. Potrero Turning Basin.
- d. Vessels with a draft of greater than 33 ft. or greater than 700' LOA transiting to or from Richmond Inner Harbor shall plan their arrival/departure so as to pass RLW/Ferry Point with a maximum 1 kt. flood current or 0.5 kt. ebb current, based on the RICHMOND (14d) current station. Deep draft vessels that cannot meet this requirement may require a tractor tug to assist. Consult with the Operations Pilot.
- e. Vessels greater than 800' LOA will be required to transit Richmond Inner Harbor during daylight hours.
- f. Present channel configuration limits the size of a vessel able to use RCH20 to a maximum 650 feet in length and 106 feet in beam. Vessels arriving and departing RCH20 will require at least (1)At. Please consult with the Operations Pilot.
- g.. Barges in the vicinity of RCH20 must be moved well clear before ships can dock or undock.
- h.. Movements to or from RCH20 are precluded when vessels are berthed at RCH21 or RCH14.
- i. Agents representing vessels calling at RCH17 or RCH14 are responsible for determining if vessels are occupying RCH20, RCH21, or RCH14 and obstructing the channel. If so the Operations Pilot must be consulted. As a general rule, the combined beams of the vessels shall not exceed 200', the passing shall be set up near high water and (2) tractor tugs will be required.
- j. In some situations it may not be possible to arrange a safe transit until the channel is clear.
- k. Conflicts with channel obstructions are to be resolved prior to scheduling transits with SFBP.
- l. Vessels berthed at RCH 22 may preclude movements to RCH 14, 17, 20 and 21.

10. **Terminal 4 Richmond**

- a. It is recommended that the arrival and departure of vessels be coordinated with the Operations Pilot.

11. **Pinole Shoal Channel**

- a. Maximum draft for transiting Pinole Shoal Channel will be calculated on the height of the tide one hour on either side of high water at Pinole Point. It will be based on brackish water draft (1.010) allowing for 2' UKC for non-tank vessels, and 3' UKC for all tank vessels on the latest controlling depth. Contact the Operations Pilot for controlling depth and assistance with calculating maximum draft allowed.

12. **Rodeo**

- a. ROD3 (Lower): Vessels over 600' are to dock P/S only.
 ROD5 (Upper): All vessels S/S only except ATB's. No vessels over 600'.
 ROD4 (Center): All vessels can berth either side to.

- b. Vessels docked port side to may undock anytime during flood current and on ebb current less than 1.5 kts.
13. **Selby (ROD8)**
- a. Presently, the terminal allows vessels up to 800' LOA or 100, 000 DWT. Both port and starboard side mooring is acceptable. However, starboard side mooring is strongly recommended.
 - b. Consult the Operations pilot for tug recommendations. At the discretion of the owner or master, an assist tug may stand-by while a ship is moored to the wharf.
 - c. Vessels may undock an time during flood current or during ebb current of less than 2.0 knots, based on the current station at the following location: Carquinez Strait (west end, bridge)(20d). NO VESSEL SHOULD DOCK OR UNDOCK WITH EBB CURRENT GREATER THAN TWO KNOTS.
14. **Crockett (CRM1)**
- a. Vessels should dock and undock with less than 1 kt. of current from ahead due to the proximity of the shore loading arms.
 - b. Consult Operations Pilot for tug requirements.
15. **Amorco (MRZ5)**
- a. See Addendum 3 for Tesoro Terminal tug and docking requirements.
16. **Anchorage 23**
- a. Vessels in Anchorage 23 must comply with the general and specific regulations as contained in Code of Federal Regulations Title 33, paragraph 110.224.
 - b. As the deep water portion of the anchorage is limited, drafts of most vessels will be limited to less than 30 feet. Specific circumstances, however, may permit greater drafts for a limited time.
 - c. A tug may be required to stand by a large or deep draft vessel in anchorage 23 during changes of the current. Tug class to be determined by the Operations Pilot, or the Pilot on the vessel, depending upon the size and/or draft of the vessel or any other condition that may affect the safety of the vessel.
17. **Port of Benicia (BNC1, 2, 3)**
- a. It is recommended that vessels be docked into the current only, due to hazards posed by adverse currents and the proximity of the bulk loader. In addition, car carriers docking at the east berth must have a 2-degree list away from the berth.
 - b. In some cases, vessels may be allowed to dock down tide with the use of two tractor tugs and less than 1 kt. of current, based on the Army Pt. Pier Lt, 0.2 mi. SE of (21d) current station. Consult with the Operations Pilot.
 - c. Vessels arriving at Benicia Industrial Dock will require 2 tugs, regardless of bow thruster. Vessels departing on the flood current (starboard side to) may eliminate the smaller tug if they have an adequate bow thruster, weather and current conditions permitting. Vessels departing on the ebb current (starboard side to) will require 1 tractor + 1

conventional tug for ebb currents up to 2 kts. Over 2 kts. of ebb current will require 2 tractor tugs.

18. **Valero (BNC4)**

- a. Those vessels using VALERO TERMINAL FACILITIES should comply with all of the regulations of that facility.
- b. Vessels port side to undock during Ebb current only. Vessels starboard side to may undock anytime during flood current or during ebb current of less than 2.0 kts, based on the Army Pt. Pier Lt, 0,2 nm SE of (21d). NO VESSEL SHOULD DOCK OR UNDOCK WITH EBB CURRENT GREATER THAN 2 KTS.
- c. Vessels docking and undocking at this facility should use adequate tugs as listed in Addendum 3.

19. **Union Pacific Railroad Bridge**

- a. During average tidal conditions vessels can normally pass without time restrictions if the air draft is no higher than 132 feet.
- b. Vessels 800' or longer, or beam greater than or equal to 130', must transit the bridge at or near slack water and daylight only.
- c. Any vessel of PANAMAX Class or larger or with air draft of more than 132' must coordinate with the Operations Pilot.
- d. Maximum beam permitted will be 140' or less.

20. **Martinez and Avon Terminals (MRZ6, MRZ8)**

- a. Loaded tankers should dock starboard side to on the ebb.
- b. Vessels in ballast should be turned and docked port side to on the flood
- c. Loaded vessels that will backload should be turned port side to during the period in which the vessel's draft will permit this to be safely done at optimum stage of the tide and current. Consult the Operations Pilot.
- d. For vessels 610' or less turning in the Avon Turning Basin, maximum drafts should be no greater than 32' F and 34' A. For vessels 611' or greater, maximum drafts should be no greater than 30' F and 32' A.
- e. Vessels docked port side to at MRZ6 & MRZ8 with a draft of greater than 30 ft. must sail on the flood tide only.
- f. Vessels in ballast docked starboard side to can depart anytime during the flood.
- g. Maximum draft for vessels arriving at MRZ6 & MRZ8 will be calculated on the height of the tide at Suisun Point one hour after high water slack at Avon. It will be based on fresh water draft (1.000) allowing for 3' UKC on the latest controlling depth in Bulls Head Channel. Contact the Operations Pilot for controlling depth and assistance with calculating maximum draft allowed.

h. See Addendum 3 for tug requirements at MRZ6 & MRZ8.

21. **Pittsburg/Antioch Terminals (PBG3, PBG4, PBG6, ANZ2, ANZ3)**

- a. Vessels loading to deep draft should be docked port side to.
- b. We recommend that all vessels more than 600` LOA turn at “Riverview”
- c. Vessels more than 700’ (213.4 M) LOA and turning must have daylight above New York Point, if vessel cannot meet the DLO, Operations Pilot should be consulted.
- d. Vessels over 700’ LOA, turning at “Riverview”, will require one At and one A tug.
- e. Loaded vessels docked port side to and sailing during ebb current should use minimum one At and one A tug. Loaded vessels docking at PBG4 should use a minimum one A and one B tug. If docking down tide, they will require one A and one B tug. Vessels sailing on ebb current from ANZ2/3 should use minimum: one A and one B tug (in ballast) or one At and A (loaded).
- f. In general, the narrow channel limits the size of vessels calling at terminals above New York Point to the PANAMAX class (750’ LOA x 106’ Beam).

SACRAMENTO AND STOCKTON

1. **Transit Drafts**

- a. Contact the Operations Pilot for maximum allowable transit drafts.
- b. Deep drafts for specific transits may be decreased depending on navigation factors such as date, time, tidal conditions, soundings, weather conditions, vessel size and type, etc.
- c. During the period from December to April, rapid shoaling may occur on the river. The pilots may be notified by the Army Corps of Engineers or receive other information of depth changes/shoaling requiring maximum drafts to change on very short notice.
- d. All transit drafts refer to fresh water drafts.
- e. All vessels should have 1’ (30 cm.) drag by-the-stern.

2. **Size Limitations**

- a. In general, the narrow channel limits the size of vessels above New York Point to the PANAMAX class (750’ LOA x 106’ beam).
- b. Contact the Operations Pilot before scheduling any vessels over 700’ LOA.
- c. Vessels over 520’ LOA and/or 73’ beam should adjust drafts to have a minimum one (1) foot trim by the stern.

3. **Air Draft**

- a. The air draft limit for an unrestricted transit during an average tidal cycle is 132 feet.
- b. Vessels with an air draft of greater than 132 feet should contact the Operations Pilot for allowable transit time.

4. **Daylight Transits**

a. The following vessels will be allowed daylight transits only:

- i. 650' and above LOA;
- ii. 100' and above beam;
- iii. vessels with severely limited visibility due to design or other factors;
- iv. vessels with a deep draft exceeding 31.0' (9.45 m.)

5. **Rapid Shoaling**

During the period from December to April, rapid shoaling may occur on the river. The pilot may be notified by the Army Corps of Engineers or receive other information of depth changes requiring drafts to be changed with very short notice.

6. **Underkeel Clearance**

See page 7, 2. Minimum Underkeel Clearance (UKC) for recommendations

8. **Fog Season**

From November to March, frequent periods of severely restricted visibility occur. Considerable delays may be experienced. Contact the Operations Pilot to schedule the most expeditious transit time to avoid the fog.

The assigned pilot can recommend to the master a change in any of the above parameters depending on specific conditions.

ADDENDUM 1-A

Chevron Richmond Long Wharf

Tugboat Classification

Revision 12-18-98

CLASS "A"	CLASS "B"	CLASS "C"
Any conventional tug with <u>Ahead</u> Bollard Pull >85,000lbs. , and	Any conventional tug with <u>Ahead</u> Bollard Pull between 85,000lbs. To 60,000lbs. And	Any conventional tug with <u>Ahead</u> Bollard Pull less than 60,000lbs.
<u>Astern</u> Bollard Pull >55,000lbs. OR	<u>Astern</u> Bollard Pull > 45,000lbs. OR	
Any tractor boat that has Bollard Pull more than or equal to 60,000lbs. In any direction	Any tractor boat that has Bollard Pull less than 60,000lbs. In any direction	

SHIP/TUGBOAT ASSISTANCE

VESSEL SIZE	MOORING (no. of tugs)	UNMOORING (no. of tugs)
Up to 30,000DWT*	2 Class B tugs*	2 Class B tugs*
30,000 to 65,000DWT*	1 Class B tug* plus 1 Class A tug = 2 tugboats	1 Class B tug* plus 1 Class A tug = 2 tugs
65,000 to 130,000DWT	2 Class A tugs plus 1 Class B tug = 3 tugboats	2 Class A tugboats
130,000 to 195,000DWT**	4 Class A tugboats, OR 3 Class A (if two tractor tugboats are employed)	3 Class A tugboats
Over 195,000DWT**	4 Class A tugboats	3 Class A tugboats plus 1 Class B tug = 4 tugboats

* A bow thruster of 1000hp or greater is equivalent to a Class "B" tugboat

** On vessels of this size, usage of at least two tractor tugboats is recommended.

ADDENDUM 1-B

GUIDELINES FOR 188,000 DWT Tankers Calling at the CHEVRON RICHMOND LONG WHARF for Maneuvering Into Berth # 4 port side to, or starboard side to

DOCKING:

1. Chevron requires a minimum underkeel clearance (UKC) of 2 feet for all vessels operating in the Maneuvering Area off the Richmond Long Wharf. (See latest revision of the Richmond Long Wharf Draft Restriction Letter).
2. While alongside the berth, all vessels must maintain a minimum underkeel clearance of 2 feet. (Upon docking, the vessel should be able to set through the next low water and maintain 2 feet UKC with the equivalent arrival draft).
3. The ship is heading into the prevailing current for the “docking maneuver.”
4. Vessels SHALL NOT dock if the wind exceeds 25 knots (gusting or steady). Vessels SHALL NOT dock if the visibility is less than one mile. Call Chevron Richmond Long Wharf at (510) 242-4494 or VHF Channel 10 for weather status. WARNING: Vessels SHALL NOT moor port-side-to at Berth # 4 if there is any observed or forecasted wind from the North to East quadrant exceeding 10 knots.
5. Tugboat Requirements for docking (Class A rated): three (3) tugboats (if there are a minimum of (2) tractors and (1) twin screw (Class A) OR (4) twin screw (Class A)
6. Vessels must have the offshore anchor ready for emergency use.

WHILE ALONGSIDE:

1. If wind speed exceeds 20 knots from the north to east quadrant, secure cargo operations and remove DCMAs.
2. If wind speed exceeds 25 knots from the North to East quadrant, order (3) Class A tugs to hold ship alongside the berth.

UNDOCKING:

1. Vessel should sail/depart on a weak flooding current. Vessel’s Master, Pilot and Chevron Shipping will agree on the departure time and weather conditions.
2. Employ a minimum of (3) tugboats, twin screw (Class A) or better.

Provided by Chevron Shipping 6-24-03.

ADDENDUM 1-C

Recommended Guidelines for Separating Vessel Arrivals and Departures at Richmond Long Wharf

Objective: To provide safe time buffers between vessel movements to avoid meeting situations in either the maneuvering area off the Long Wharf or the Southampton Shoal Channel and its approaches, and to avoid forcing vessels into a “holding pattern” to await berth space. These Guidelines supplement the Federal RNA Rules.

Note: These guidelines shall in no way interfere with or preclude the authority of the Master and or Pilot of any vessel. Nothing in these guidelines should be construed as preventing the terminal and departing or arriving vessels from agreeing to a divergence from these guidelines, as long as ALL parties agree and no vessel is put in an unsafe position or in violation of the Regulated Navigation Area (RNA).

Pre-arrival Notifications:

Vessels are required to contact the Richmond Long Wharf three (3) hours prior to the scheduled docking time on VHF Channel 10. Use telephone communication (510-242-4494, Richmond Long Wharf Control Room) only as a backup to the radio call. At this time the Head Operator (H. O.) will advise the vessel of the following:

1. Confirmation of berth assignment and availability (i.e. empty or occupied with departure information).
2. Scheduled departure times of vessels from other RLW berths, vessel names and which side to the berth (port or starboard)

At one hour before your assigned docking time, again contact Richmond Long Wharf on VHF Channel 10 and establish what frequency the pilot will use to moor the vessel. Richmond Long Wharf has VHF Channels 7A and 77 available on their portable VHF radio.

Vessels shifting to the Long Wharf from Anchorage or from other facilities are required to contact the Wharf before heaving anchor or departing berth.

Vessels inbound from sea are advised to contact the Long Wharf when they reach the Golden Gate Bridge for an update on RLW vessel schedules.

A communication log will be kept at the Long Wharf to verify that the required pre-arrival notification has taken place.

Vessel Separation Times:

Case A: Successive arrivals and successive departures

- A one-hour time separation between last line on vessel number 1 and the first line on vessel number 2, in other words, a clear hour between mooring operations.

Case B: Incoming and departing vessels using separate routes (for example, one vessel transiting Southampton Shoal Channel and the other transiting the East span of the San Rafael Bridge.)

- A one-hour time separation between last line on vessel number 1 and the first line on vessel number 2, in other words, a clear hour between mooring operations.

Case C: Incoming and departing vessels both using Southampton Shoal Channel

- A three-hour time separation between actual departure and arrival times (“departure” means the time of beginning to let go the departing vessel’s lines and “arrival” means the time the inbound vessel arrives alongside the Long Wharf), with priority being given to the inbound vessel. (Note: vessels shifting from Anchorage #5 to RLW must remain clear of Southampton Shoal Channel and approaches until the departing vessel clears them, but need not wait for the three hours.)

- Note: If the Departing Vessel is delayed at the Wharf, the H. O. must, as soon as possible, contact and advise the inbound vessels of the delay (VTS at 415-556-2760 and Pilot Office at 415-393-0457 can assist if needed). If the inbound vessel is committed to its approach to Southampton Shoal Channel (usually by the time the vessel reaches the Golden Gate Bridge), the departing vessel must be held at the Long Wharf until the arriving vessel is safely alongside. (This assumes the vessel at the wharf is in a different berth than the in bound vessel’s intended berth). The Head Operator will make all decisions at the wharf regarding the holding of vessels.

Please note: If in case C, the Departing vessel must meet a particular tide and is constrained by draft, and if the inbound vessel is still safely outside the Bay or can safely proceed to anchor, the inbound vessel will be asked to wait for the departing vessel. The head operator should anticipate these cases and advise the scheduled inbound vessel sufficiently in advance of coming into the Bay or before heaving anchor.

It is the duty of the Chevron Head Operator to work toward resolving conflicts and make any required decision regarding the holding of a vessel at the Long Wharf.

ADDENDUM 1-D

Richmond Long Wharf Vessel Pre-Arrival Communication

5.1. Berthing

Chevron periodically issues draft restrictions for vessels calling at Richmond Long Wharf. These restrictions should be obtained through the vessel's agent, or directly from Chevron Shipping Company's Richmond office (see "official addresses").

Berthing of a deep draft tanker should be timed to allow the ship to remain along side at her arrival draft through the next low water.

If cargo transfer is delayed and it's determined that the berth allowable draft limit (BADL) will be exceeded, the vessel shall be ordered to make preparations to sail six hours before BADL will be reached, making all tug and pilot arrangements. Associated costs will be determined based on the responsibility for the berth delay.

Vessel shall be required to depart the berth based on safe tidal and current conditions, but always before maneuvering area draft limit (MADL) is reached.

The Wharf Coordinator and your agent will set your berth assignment prior to your arrival. If a berth is not available at the time of your arrival your agent will instruct you to go to anchor (as directed by the captain of the port) and maintain radio contact with Richmond Long Wharf by VHF Radio Channel 10, 156.5 MHz.

Your vessel's agent is responsible for providing you with your anticipated arrival time at the Long Wharf. At least three hours before your assigned docking time, contact Richmond Long Wharf by VHF Radio Channel 10 to confirm your anticipated docking time. At that time the Wharf will advise you of Berth assignment and any expected vessel traffic at the Long Wharf. Use phone communication (Long Wharf Control Room # 510-242-4494) only as a backup to the radio call. For vessels arriving from anchorage or from other facilities, this call should be made prior to heaving anchor or departing berth.

The Wharf will also advise your vessel of any changes once the vessel has made initial contact. Inbound vessels will typically have priority over departing vessels. If an outbound vessel is restricted to a particular sailing time due to draft and tide, and if the inbound vessel can safely lose time outside the Bay or safely proceed to anchor, the Wharf will request that the outbound vessel have priority. If there is a decision to be made regarding holding a vessel alongside, it will be made by the Head Operator.

At one hour before your assigned docking time, you are to again contact Richmond Long Wharf to establish with the terminal what channel the pilot will be using to moor your vessel.

For docking purposes, we have available the following VHF Channels: 7A & 77.

While mooring or unmooring, our internal safety procedures require that vessel-to-terminal communications be established before vessel is 150' from wharf, and then maintained throughout the event. Vessels are cautioned to check with SF Bay VTS on other vessel movements in the area that are not controllable by the Richmond Long Wharf, for instance, vessels proceeding out of Richmond Inner Harbor which may also intend to use Southampton Shoal Channel.

As a further safety precaution, regarding tidal current, ship's pilots and captains should consider the following warning:

When maneuvering a tank vessel or barge near the Richmond Long Wharf, pilots and/or captains are advised to:

1. Advantageously utilize the tidal currents when docking or undocking,
2. Avoid docking at "Slack Current / slack water" conditions

Swirling "slack current/slack water" conditions may increase the difficulty of a docking maneuver.

TO AVOID DANGEROUS MEETING AND PASSING SITUATIONS IN THE MANEUVERING AREA AND SOUTHAMPTON SHOAL CHANNEL, DEPARTING VESSELS MUST BE CLEAR OF CHANNEL BEFORE THE NEXT ARRIVING VESSEL CAN ENTER THE CHANNEL, AND VICE VERSA.



ADDENDUM 1-E

March 9, 2006

AMENDMENT TO RICHMOND TERMINAL MANUAL

- ADVERSE WEATHER GUIDELINES -

Regarding the departure of tank vessels from R.L.W.

In the interest of safe operations, the terminal personnel and all mariners are asked to work as team. All factors including weather, wind speed, current velocity, and line handler readiness should be communicated and SHARED. Ultimately, it is still the mariners (pilot, master, and / or bridge team) who must make the final decision to facilitate a departure at the Richmond Long Wharf. Notwithstanding, please note that there may be more stringent limitations for vessels operating in the bargeway.

The **standard departure** should include the collaboration of:

- All parties (tugs, pilot, terminal) on the same VHF frequency
- No known deficiencies aboard vessel or at the terminal
- Sufficient time allowed to disconnect all terminal equipment
- "Bailout" plan if the vessel must return to the terminal

It is recommended that all mariners upgrade to a **precautionary stage**, when:

- Wind on the beam, with a sustained velocity of 30 knots
- (note: for VLCC ships, sustained velocity = 15 knots)
- Anemometer Log indicates a history of abnormal high winds
- Barometer or Barograph monitored for abnormal pressure gradient
- National Weather Service issues warning or watch for a "GALE"

The precautionary stage should be elevated to a **"NO GO" for departure or arrival**, if:

- Wind on the beam with sustained velocity > 40 knots
- (note: for VLCC ships, sustained velocity > 20 knots)
- Rapidly falling barometer or the approach of a weather front
- National Weather Service issues a warning or watch for a "STORM"
- Terminal workers cannot operate safely on the RLW deck

ADDENDUM 2

SAFETY CHECKLIST FOR BUNKERING VESSELS BY BARGE AT PORT OF OAKLAND BERTHS 35, 37 and 55-59

1. Prior to arrival of the bunker barge alongside the receiving vessel, the tug captain will contact the Marine Exchange for arrival and departure information for all vessels transiting OOH or OIH over the intended duration of the transfer.
2. Following arrival, the tug captain will notify Vessel Traffic to request all vessels to proceed slowly and with caution when passing the bunker barge.
3. The tug will monitor VHF channels 10 and 13 at all times.
4. The tug will remain in the barge notch with engines on standby and on wheelhouse control.
5. A minimum of 2 head lines, 2 spring lines and 2 stern lines will be used to secure the tug/barge unit to the vessel. One of the stern lines will be taken from the tug's offshore Beebe winch.
6. The receiving vessel will have a VHF equipped watch stander available at all times to tend the bunker hose and lines.
7. The tug captain will obtain from the Pilot Dispatcher the name and unit number of each pilot on vessels transiting the area for possible direct communications.
8. Bunker transfer operations will cease when vessels are transiting the immediate area.
9. A second man will be stationed on the barge when vessels are transiting the immediate area.

ADDENDUM 3
Tesoro Minimum Tug Requirements

TESORO TERMINAL REGULATIONS FOR SHIPS AND BARGES

Tesoro requires the vessel to maintain at least 2 feet of UKC through any stage of the tide while alongside Avon or Amorco Terminal. Please reference the most current Tesoro Draft Notice to confirm the max draft and UKC requirement for your vessel. The most current notice can be obtained from the agent or Tesoro directly.

Tug Requirements

- **Barges:** For docking and undocking, loaded or light, two tugs are required for all barges regardless of size. The assist tug must be a twin screw class B or better.

- **ATB:** Articulated Tug and Barge units will require as a minimum for docking and undocking one (1) tractor tug class A or better and one (1) class B or better in addition to the dedicated ATB tug.

- **Ships up to 120 MDWT** will require as a minimum for docking and undocking two (2) tractor tugs class A or better.

- **120 MDWT to 199 MDWT** will require as a minimum for docking two (2) tractor tugs class A and one twin screw conventional tug Class A or better.

- **120 MDWT to 199 MDWT** will require as a minimum for undocking two (2) tractor tugs Class A or better.

- **Polar Tankers, Millennium Class,** will require for docking and undocking two (2) tractors Class A or better.

At Amorco, if docking starboard to, then the vessel must dock into the ebb and can only leave on ebb current. The sailing time is to be set no later than two hours prior to low water slack based on the "Martinez Marina, 0.61 nmi. NNW of (23d)" current station.

At Amorco, if docking port side to, then the vessel can leave at any state of the tide/current, but during the ebb, the current should be less than one knot.

12-20-13

ADDENDUM 4

FLAT TOW GUIDELINES

When a tug company or other customer requests the services of a pilot for assistance on flat tows, the following policy shall apply from the date hereof. We define a "flat tow" as a movement of a vessel without propulsion and where the vessel is not fully manned or lacks a properly-licensed master employed by the vessel owner or operator. Under such circumstances, control of the vessel will have to be through instructions to various assisting tugs and the hired linesmen.

To properly address safety and liability concerns, the San Francisco Bar Pilots Association, acting on behalf of its members, is hereby imposing certain minimum requirements as a condition for assigning pilots on flat tow operations. The requirements are:

1. Adequate tugs in both number and size must be assigned. The San Francisco Bar Pilots generally recommend the following tugs:

<u>LOA (feet)</u>	<u>Recommended Tugs</u>
less than 400	1 Tractor and 1 A
400 - 700	2 Tractors and 1 A
700 - 900	2 A+ Tractors and 2 A
900+	3 A+ Tractors and 1 A

The term "tractor tug", when required, will be defined as:

A tractor tug is a tug powered by two or more omni-directional thrusters capable of applying steering and braking forces to the ship via a towline at speeds of five knots and more. For safety, the towline's length needs to be adjustable using a winch that is controlled by the tug's crew from the safety of the tug's wheelhouse. Because of the exceptional maneuverability of these boats, and the tight quarters of many of the waterways and berths in the San Francisco pilot's jurisdictions, the tug's wheelhouse should afford the tug operator a near 360° view (masts, exhausts and other small items may restrict the view of a few degrees) so that he or she can see all that he or she needs to see without leaving the tug's controls.

The actual number and size of the tugs to be assigned to a flat tow operation will depend on a number of factors which will affect the safe movement of the tow. For planning purposes, guidance can be obtained from the Operations Pilot of the pilot office who will endeavor to coordinate the assigned pilot's concerns with the intended flat tow operation. However, the assigned pilot has it in his or her discretion to refuse to accept the assignment if the number and size of the tugs, as well as the size and type of lines available aboard for use during the movement are not satisfactory to that pilots. Again, if you have any questions about tug size or needs, please contact the Operations Pilot.

2. Adequate linesmen must be aboard the towed vessel to receive, handle and let go tug lines during the operation. These individuals must be organized into two gangs, one forward and one aft, and there shall be an experienced supervisor for each gang who will transmit the pilot's directions, usually given by radio, to the linesmen. For this reason, adequate radios, compatible with the pilot's own radio, must be provided to the linesmen supervisors.
3. Because of the critical role of the tugs to the operation and because the pilot is serving merely as advisor to the person in control of the towed vessel, the senior-most tug operator will be designated prior to the operation, as the person in control, or "master" of the tug, and shall be aboard the tow at all times during the maneuver. The operator assigned to the tow will coordinate the movement with VTS and other authorities.
4. Our members always work hard to ensure a safe operation. However, the pilot acts as an advisor only. Neither the pilot, the Operations Pilot, nor the San Francisco Bar Pilots Association warrants the adequacy of the tugs, their lines, the linesmen or the tug operator in control of the tow and the movement.
5. The Harbors and Navigation Code, Division 5, section 1198, gives every vessel, and its owner, operator and/or charterer a choice of options for protecting pilots from liability. Pilots are required to have available "trip" insurance for purchase by those hiring a pilot. The trip insurance protects the pilots from liability that may be incurred in connection with the provision of pilotage service. Trip insurance is available from the SFBP upon advance written request. Alternatively, if a vessel and its owner, operator and/or charterer do not wish to purchase the trip insurance, then by law they are deemed to have agreed to defend and indemnify the pilot hired, as well as the SFBP and those associated with it, from all liabilities that may arise in connection with the provision of pilotage. Protecting the pilots from liability by choosing from the options described herein is required both by statute, and as a contractual condition.

It is strongly suggested that consultation with the Operations Pilot takes place before going to bid on any towing operation involving pilot services.

If you have any questions about any of these requirements, please feel free to contact the Operations Pilot at the pilot office.