Terminal Information and Port Regulations

BP Texas City Marine Terminal
1. INTRODUCTION
   1.1 General Information
   1.2 Refinery Terminal Layout
   1.3 Chemical Terminal Layout
   1.4 Location

2. SAFETY
   2.1 Electrical Equipment
   2.2 Emergency Tow (Fire) Wires
   2.3 Enclosed Space Entry
   2.4 External Doors and Ports
   2.5 Manning
   2.6 Internal Combustion Engines
   2.7 Matches and Lighters
   2.8 Protective Equipment
   2.9 Cellular Phones
   2.10 Smoking Areas
   2.11 Warning Notices
   2.12 Unauthorized Craft Alongside

3. POLLUTION PREVENTION
   3.1 Responsibility of Owner and Master

4. EMERGENCY PROCEDURES
   4.1 Fire and Safety
      4.1.1 Terminal Fire
      4.1.2 Vessel Fire
      4.1.3 Terminal Fire System
   4.2 Fire Emergency Equipment
   4.3 Terminal Fire System
   4.4 Pollution Incident
   4.5 Terminal Evacuation
   4.6 Security Emergency
   4.7 Vessel Breakaway

5. SECURITY
   5.1 Restricted Areas
   5.2 Declaration of Security
   5.3 Unauthorized Vessels

6. TERMINAL REPRESENTATIVES
   6.1 General
   6.2 Marine Control Coordinator
   6.3 Shift Supervisor
   6.4 Dock Operator
   6.5 Port Superintendent
7. TERMINAL FACILITIES
   7.1 Refinery Terminal Facilities
   7.2 Chemical Terminal Facilities
   7.3 General
   7.4 Chemical Terminals Main Dock House
   7.5 Dock Office Building/Meter Station
   7.6 Dock 32
   7.7 Dock 33/34
   7.8 Dock 37
   7.9 Dock 38
   7.10 Dock 40
   7.11 Dock 41
   7.12 Dock 50
   7.13 Dock 51
   7.14 Dock 52
   7.15 Dock 54A
   7.16 Dock 54E

8. COMMUNICATIONS
   8.1 Communications
   8.2 Radio Communications
   8.3 Other Useful Communications

9. BERTHING, MOORING AND VESSEL ACCESS
   9.1 Vessel Tank Conditions
   9.2 Pilots and Tugs
   9.3 Angle of Approach
   9.4 Approach Speed
   9.5 Mooring System
   9.6 General Mooring Requirements
   9.7 Specific Mooring Requirements
      9.7.1 Dock 32
      9.7.2 Dock 33/34
      9.7.3 Dock 37/38
      9.7.4 Dock 40/41
      9.7.5 Dock 50
      9.7.6 Dock 51
      9.7.7 Dock 52
      9.7.8 Dock 54A&E
      9.7.9 Vessel Movement After Mooring
   9.8 Outside Vessels
   9.9 Ocean Going Barges
   9.10 Anchors
10. CARGO OPERATIONS
   10.1 Communication Language
   10.2 Notice of Readiness
   10.3 Readiness to Load
   10.4 Material Safety Data Sheet
   10.5 Minimum Number of Vessel Crew
   10.6 Maximum Allowable Pressure
   10.7 Cargo and Ballast Tank Openings
   10.8 Cargo Tank Venting
   10.9 Inert Gas System
   10.10 Connection of Transfer Hoses/Arms
   10.11 Emergency Shutdown System
   10.12 Pre-Transfer Conference
   10.13 Portable Radio
   10.14 Start of Transfer
   10.15 Cargo Loading
   10.16 Ship Stability
   10.17 Safe Fill Heights
   10.18 Topping Off
   10.19 Cargo Discharge
   10.20 Pre-Notice of Pumping Rate Changes
   10.21 Standby and Shutdown
   10.22 Emergency Cease Pumping
   10.23 Stop Transfer Operations Conditions
   10.24 Suspension of Transfer Operations
   10.25 Blowing and Draining Hoses/Arms
   10.26 Disconnecting of Transfer Hoses/Arms
   10.27 Ballast
   10.28 Vapor Recovery Requirements
       10.28.1 Refinery Terminal
       10.28.2 Chemical Terminal

11. CARGO OPERATIONS-SPECIAL
   11.1 Tank Cleaning
   11.2 Crude Oil Washing
   11.3 Gas Freeing
   11.4 Dock 40/41 Vessel Manifolds

12. CARGO OPERATIONS-BARGE
   12.1 General
   12.2 Pre-Transfer Conference
   12.3 Minimum Number of Tankerman
   12.4 Maximum Allowable Pressure
   12.5 Maximum Allowable Rate
12.6 Safe Fill Heights for Barges
12.7 Tug in Notch “Married Unit”
12.8 Towboat and Barge
12.9 Towboat Standby
12.10 Lay Berth for Barges
12.11 Unmanned Barges
12.12 Boilers
12.13 Void Tanks on Barges

13. CARGO QUANTITIES AND QUALITY
   13.1 General
   13.2 Open Gauging and Sampling of Inerted Vessel
   13.3 Open Gauging and Sampling

14. TERMINAL SERVICES
   14.1 Ballast, Bilge and Slop Handling
   14.2 Garbage Reception Facilities
   14.3 Pay Telephones
   14.4 Potable Water
   14.5 Security and Visitor Access to Vessel
   14.6 Stores Handling
   14.7 Bunkering by Barge

15. GENERAL REGULATIONS
   15.1 Security
   15.2 Drug and Alcohol Policy
   15.3 Gangway
   15.4 Painting/Sandblasting
   15.5 Photography
   15.6 Work on Docks by Contractors
   15.7 Repairs on Vessels
   15.8 State of Readiness of Vessels Alongside
1. Introduction

1.1 General Information
The information in this manual is intended to acquaint vessel owners, operators, charterer’s, masters, barge captains, tankerman and other “Persons-in-Charge” with the general conditions, rules and regulations, facilities and availability of services at the BP Terminal at Texas City, Texas.

Nothing in this document should be interpreted as replacing or superseding any information, laws or regulations contained in any governing regulatory publication with respect to the Texas City locale.

While the information contained in this manual is intended to acquaint vessel owners, operators, charterers, agents, masters, towboat and barge captains, tankerman and “Vessel Persons-in-Charge” with the general conditions, rules and regulations, facilities and availability of services at the BP Terminal. This information is provided without any guarantee or warranty on the part of BP Texas City Marine Terminal as to its accuracy or completeness, and BP Texas City Terminal does not assume nor accept any responsibility for the use of any information contained herein by any person.

In all circumstances, vessel masters, towboat and barge captains, tankermen and “Vessel Persons-in-Charge” shall remain solely responsible for:
- The safe and seaworthy operation of their vessel(s),
- Compliance with all applicable International, Federal, State and local laws, rules, and regulations,
- Adherence to the latest Oil Companies International Marine Forum (OCIMF) guidelines,
- Adherence to these Terminal Regulations.

In addition, all vessels calling at the BP Texas City Marine Terminal shall be in full compliance with the requirements of BP Group Shipping Policy.

You are hereby notified that your vessel and owners are fully responsible for damage due to the fault or negligence of vessel personnel.

Vessels may be boarded and inspected by BP personnel at any time while at the BP Terminal to ensure compliance with these requirements. BP does not in any way accept responsibility for the condition of the vessel or the conduct of any operation on board the vessel.
1.2 BP Texas City Marine Terminal Layout
Refinery Docks 32, 33, 34, 37, 38, 40, 41
1.3 BP Texas City Marine Terminal Layout
Chemical Docks 50, 51, 52; Refinery Docks 54E, 54A
1.4 Location
The BP Texas City Marine Terminal Refinery Docks 32, 33, 34, 37, 38, 40, 41 are located in Texas City, Galveston County, Texas adjacent to Galveston Bay on the Texas City Turning Basin at approximately 29° 22’ 16” North, 94° 53’ 21” West.

The BP Texas City Marine Terminal Chemical Docks 50, 51, 52 and Refinery Docks 54E, 54A are located in Texas City, Galveston County, Texas adjacent to Galveston Bay on the Texas City Industrial Canal at approximately 29° 21’ 48” North, 94° 54’ 24” West.

2. Safety

2.1 Electrical Equipment
Portable electrical equipment for use in hazardous areas must be of an approved type having a minimal approval for Class I, Groups C and D intrinsic safety in hazardous locations. Appropriate license, label or certificate will be readily available for inspection at all times. Any other electrical or electronic equipment of non-approved type will not be activated or used while vessel is at the BP Texas City Marine Terminal. This includes flashlights, radios, vessel main transmission antenna, personal audio equipment of any type, mobile/cellular telephones, radio pagers, calculators, photographic equipment, portable electric lights and any other portable equipment that is electrically powered but not approved for operation in hazardous areas. Portable equipment with electrical extension leads connected to sockets on deck or at any other hazardous location must be disconnected and not used at the BP Texas City Marine Terminal unless approved for hazardous location with explosion-proof fittings.

2.2 Emergency Tow (Fire) Wires
Emergency towing wires shall be rigged and sized as described in OCIMF "Mooring Equipment Guidelines" Section 3.11 with diagram. All ocean-going vessels are expected to have emergency towing wires (one near bow and one near stern) rigged while moored. Rigged wires shall be led directly from respective deck bollards to shipside chocks with no slack on deck. Heights of eyes are maintained at least 8 feet (2.5 meters) above water by adjusting a heaving line made up to each wire just above the eye, high enough to prevent a security breach. In an emergency, attending harbor tugs will be able to access the eye. During heightened levels of MARSEC (refer to Section 5), emergency tow wires may be required to be positioned near the vessels rail so that access by harbor tug boats is not possible. Emergency deployment in this situation would be by vessel personnel releasing the wires so that attending harbor tugs could gain access to them.
2.3 Enclosed Space Entry
Entry of any vessel-enclosed space as discussed in ISGOTT is prohibited while at the Terminal once hose connections have been made from the shore to the vessel. No one is to enter any cargo tank, cofferdam, double bottom or other enclosed space unless ISGOTT-equivalent enclosed space entry procedures and permit are in place (refer to ISGOTT, Chapter 11).

2.4 External Doors, Hatches Ports and Accommodation Ventilation
All external accommodation, machinery casing, forecastle and main deck storeroom doors, ports, hatches and openings shall be kept closed while the vessel is secured at the Terminal except for the routine opening for personnel passage. Hatches and openings for enclosed spaces such as ballast tanks and voids shall remain closed during cargo operations.

Ventilation systems will be controlled to prevent the ingress of cargo vapors into living and working spaces.

2.5 Manning
Vessels shall be adequately manned at all times in order to safely manage shipboard emergencies including fire, pollution incidents, security including mandatory port evacuations, weather and breakaway.

2.6 Internal Combustion Engines
Portable Internal Combustion Engines, such as compressors, pressure washers, and pumps are not to be used while at the Terminal.

2.7 Matches and Lighters
The carrying of matches or lighters either on the vessel or in the Terminal is prohibited.

2.8 Protective Equipment
In conjunction with BP Shipping, we expect tankerman entering our facility to adhere to the following PPE guidelines:

- Long sleeve shirts, long pants (cotton acceptable)
- Hard hat with goggles at all times when outside of the control room
- Suitable protective gloves when working with their hands
- Suitable shoes that prevent possible chemical contact with the skin
- Respirator when required
- Hearing protection when working in high noise areas
- Approved work vest at all times when not protected by a handrail
- Approved flashlight when needed
- Outside tankerman must sign in and out at the Meter Station
In conjunction with BP Shipping, we expect tankerman entering our facility to adhere to the following PPE guidelines:

- Long sleeve shirts, long pants (cotton acceptable)
- Hard hat with goggles at all times when outside of the control room
- Suitable protective gloves when working with their hands
- Suitable shoes that prevent possible chemical contact with the skin
- Respirator when required
- Hearing protection when working in high noise areas
- Approved work vest at all times when not protected by a handrail
- Approved flashlight when needed
- They must sign in and out at the Meter Station as does every other visitor

Failure to adhere to these guidelines will result in the shut down of the transfer or connect/disconnect until the issue is resolved. These incidents should be reported to Barge Superintendent Steve Richards and Day Asset Supervisor Derek Thompson, or the BP OMCC Shift Supervisor.

Failure to adhere to these guidelines will result in the shut down of the transfer or connect/disconnect until the issue is resolved. These incidents should be reported to Barge Superintendent Steve Richards and Day Asset Supervisor Derek Thompson, or the BP OMCC Shift Supervisor.

2.9 Cellular Phones
Mobile/cellular telephones, pagers and radio devices not rated “intrinsically safe for hazardous locations” shall not be used inside the Terminal and shall be turned off when entering the Terminal. They may be used inside terminal control rooms and enclosed vessel accommodation spaces such as wheelhouses and cargo control rooms only.

2.10 Smoking Areas
Smoking is not allowed on deck while at the Terminal. Each vessel, where smoking is allowed, will designate a smoking room inside the vessel accommodation spaces. Smoking is permitted only in this space.

2.11 Warning Notices
Required warning notices shall be placed at the gangway. Permanent notices shall be displayed on board the vessel indicating where smoking is prohibited.

2.12 Unauthorized Craft Alongside
No unauthorized vessel or water craft are allowed to enter the BP Texas City Marine Terminal. Refer to Section 5, Security.
No vessel or water craft is authorized to come alongside or remain alongside a tank vessel or barge while handling cargo, or at any time a tank vessel is not secured and fully inerted. The Terminal must provide authorization for any craft going alongside any vessel at the Terminal. Operators of these craft shall be cognizant of safety rules and regulations applying to the vessel and the Terminal.

3. Pollution Prevention

3.1 Responsibility of Owner and Master
In accordance with federal and state mandated oil spill response measures, the Terminal's OSRO, Garner Environmental is equipped with containment booms and cleanup equipment which can be readily deployed in the case of an oil spill. The Master is responsible for ensuring that every precaution has been taken that no pollution incident occurs while the vessel is in Federal or State waters of the United States of America.

The following measures shall be checked prior to the vessel's arrival at the Terminal:

- All deck scuppers and drains shall be plugged and sealed.
- An adequate supply of absorbent material shall be available on deck for immediate use.
- A pumping system shall be in place to draw off all deck water contaminated by oil or grease to a containment tank and provide for immediate deck containment recovery in the event of a spill.
- A pumping system shall be in place to draw off all oil or oily liquid from the cargo manifold containment pan, with associated pipeline arrangement, for prompt transfer to a cargo or slop tank.
- All sea suction shall be closed and sealed (except for segregated ballast and machinery seawater circulation systems).
- No bilge water of any composition or from any compartment shall be discharged overboard.
- No sewage from any compartment shall be discharged.
- No garbage or refuse shall be discharged overboard.
- There shall be no blowing of boiler tubes or stack (funnel) uptakes.
- Visible stack (funnel) or exhaust emission, white or black smoke, is prohibited at any time.

4. Emergency Procedures

4.1. Fire Emergency
4.1.1 Terminal Fire
The Terminal is fitted with its own emergency siren that will sound in the event of an emergency:
One Blast  All Clear
Two Blasts  Stop All Hot work
Three Blast  Non-operating Personnel Evacuate
Continuous Blast  All Personnel Evacuate

In the event of a fire in the Terminal, BP’s response team will protect shore side interests and cool down dock area as required.

4.1.2 Vessel Fire
In the event of a fire occurring on board any vessel at the Terminal, such vessel shall sound the following signal:

One ten-second blast from the whistle or siren and general alarm. Such signal can be repeated at regular intervals to attract attention. This signal is not a substitute for, but shall be used in addition to other means of reporting fire.

Additionally, the vessel is to perform the following actions:
  o Secure transfers with the appropriate ESD (emergency shutdown) system and secure all transfer valves.
  o Make immediate notifications to the following:
    ▪ Dock Operator
    ▪ United States Coast Guard
    ▪ Port of Texas City Harbor Master
  o Fight the fire on the vessel and prevent it from spreading.
  o Standby to have hoses/arms disconnected.
  o Bring engines to standby.
  o Work with Texas City Fire Department as they are in charge of the total incident while at the Texas City berth.

4.2 Fire Emergency Equipment
Immediately after the vessel is secured to the dock, all fire hoses shall be connected to the vessel’s fire main supply line. Two of the hoses must be in the vicinity of the manifold. If the vessel is fitted with monitors, they shall be focused in a raised and ready position. The main deck fire line must be either ready for instant use or the line must be continuously pressurized with an open nozzle running water over the side at the forward end of the vessel.

4.3 Terminal Fire System
The Terminal is protected by a fire water system supplied from firewater pumps located within the facility. The fire fighting equipment consists of the fire water supply system and foam application devices, fire engines (stationed in the refinery), and dry chemical portable fire extinguishers located at each dock. Each dock is also equipped with International Fire Water connections.

4.4 Pollution Incident
In the event of any tank overflow or other spill alleged to be from the vessel, the Master or designee will immediately stop all transfer operations, immediately notify the Dock Operator and secure cargo operations. In the event that there is an oil spill alleged to be from the vessel, it is the Master’s responsibility to immediately implement containment and clean-up action. If the Master does not act promptly, the Terminal supervisor will initiate clean-up action on behalf of the ship, and all costs and damages resulting from such action will be for the account of the vessel’s owner. In all situations where there is a pollution incident, oil transfer between ship and shore will not be resumed until the environment is returned to its original condition, there is no further danger, and repairs where necessary, are completed to the satisfaction of the Terminal and the USCG.

4.5 Terminal Evacuation
Should it be necessary for personnel to evacuate the Terminal, personnel will be directed to follow the primary egress route leading to the primary muster point located at the main security gate for each dock complex. If it is determined that the primary route cannot be used, personnel will be directed to follow a secondary egress route leading to a secondary muster point. For dock complexes with finger piers such as Refinery Docks 32-33-34, 37-38, and 40-41, egress will be via waterside egress. Personnel will be directed to the egress ladder and arrangements will be made for boat evacuation using harbor tugs or line handler vessels.

Vessels shall have a plan and preparations in place to for personnel evacuation from the vessel using either the gangway/terminal route or an offshore route. Offshore egress procedures can include the use of accommodation ladder combined with harbor tug or launch/line handler service. It may include the use of the vessel’s offshore lifeboat. Accommodation ladder and lifeboat can be made ready, but must remain at the weather deck and ready for use to prevent security breeches.

4.6 Security Emergency
Refer to Section 5, Security. Follow agreed procedures established in completing Declaration of Security.
4.7 Vessel Breakaway
In the event of your vessel breaking out of its moorings, every effort should be made to regain control over the vessel to minimize damage to cargo connections, terminal facilities and other vessels including immediate call for harbor tug assistance.

5. Security

5.1 Restricted Areas
BP Texas City Marine Terminal Restricted Areas are any area inside the terminal perimeters, including the interior of the Terminal Administration Buildings. This is then defined as from security dock gate entrance posts to water, and all areas within the respective fenced perimeters of the individual BP Texas City Marine Terminal dock properties.

The stated restricted areas are considered restricted areas on a 24 hours, 7 day a week basis and do not allow for these restrictions to be revoked for special time periods. Access restrictions are therefore in effect at all times.

5.2 Declaration Of Security
The Declaration of Security (DOS) is an agreement to be executed between the responsible Vessel Security Officer and Facility Security Officer and provides a means for ensuring that critical security concerns are properly addressed and security will remain in place throughout the time a vessel is moored as the facility. Security is properly addressed by delineating responsibilities for security arrangements and procedures between a vessel and the facility. This obligation is similar to the existing U.S. practice for vessel/facility or vessel/vessel oil transfer procedures. At all MARSEC levels, a DOS will be completed. The Declaration of Security will be completed by:
- The Master (s) or the Vessel Security Officer (s); and /or
- The Facility Security Officer, or a person designated in the security plan to act on behalf of the Security Officer. The Facility Person In Charge (FPIC) will complete the DOS.

The Facility and Vessel will each keep a copy of the DOS.

Note: A keyword alert system is a pre-designated alert word, code or signal that can be transmitted when anyone aboard the vessel or all access points and the central security office suspects a security breach has or is taking place. The word is to be specific to the individual transfer. In lieu of using a keyword alert system as
required by the Coast Guard, the orange “man down” button on the Motorola radio will be used.

5.3 Authorized Vessels
No unauthorized vessel or water craft are allowed to enter the BP Texas City Marine Terminal. The Terminal is situated in a Federal Security Zone. Unauthorized craft are considered security breach and will be dealt with by the U.S. Coast Guard and appropriate law enforcement.

6. Terminal Representatives

6.1 General
The below listed Terminal Representatives are those persons directly involved with the vessel visit to this Terminal. While each Terminal Representative has specific responsibilities, each will at all times be watchful for safety and pollution hazards around and on board the vessel. It is, however, not intended that the Terminal Representatives locate all safety and pollution hazards or discover all improper and unsafe conditions under the vessel’s direct control.

6.2 Marine Control Coordinator (MCC)
The Refinery Marine Control Coordinator “Meter Station Operator” controls the movement of vessels and cargoes to and from the Refinery docks. The Chemical Marine Control Coordinator “Shore-side Operator” controls movement of vessels and cargoes to and from the Chemical docks. The MCC does not board vessels but rather interfaces with vessel agents, owners, and operators on behalf of the Terminal. All required communications on behalf of the vessel prior to arrival should be to the respective MCC, either Refinery or Chemical. USCG and weather advisories are communicated to vessels from the MCC by way of the Dock Operator.

6.3 Shift Supervisor
The Shift Supervisor is the supervisor for all Terminal operations. The supervisor will normally board vessels only as individual situations dictate.

6.4 Dock Operator
The Dock Operator is the FPIC, “Facility Person-in-Charge” of the cargo transfer for an individual dock. He/She will board the vessel for a pre-transfer conference and the signing of Terminal and vessel documents.

6.5 Port Superintendent
BP Shipping USA has Port Superintendents stationed at BP Texas City. The Port Superintendents are available to assist with marine issues as needed.
### 7.1 Terminal Facilities

**6.1 Texas City Refinery Terminal Facilities**

<table>
<thead>
<tr>
<th>Refinery Docks</th>
<th>Dock 32 Ship/Barge</th>
<th>Dock 33 Barge</th>
<th>Dock 34 Ship/Barge</th>
<th>Dock 37 Barge</th>
<th>Dock 38 Ship/Barge</th>
<th>Dock 40 Ship</th>
<th>Dock 41 Barge</th>
<th>Dock 54E Barge</th>
<th>Dock 54A Barge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berthing Side To</td>
<td>Port</td>
<td>Starboard</td>
<td>Port</td>
<td>Starboard</td>
<td>Port</td>
<td>Starboard</td>
<td>Port</td>
<td>Port</td>
<td>Port</td>
</tr>
<tr>
<td>Design/Maximum Draft (fresh) (1)</td>
<td>39.5'</td>
<td>17'</td>
<td>14'</td>
<td>39.5'</td>
<td>39.5'</td>
<td>39.5'</td>
<td>39.5'</td>
<td>14.5'</td>
<td>15.5'</td>
</tr>
<tr>
<td>LOA</td>
<td>850'</td>
<td>300'</td>
<td>300'</td>
<td>745'</td>
<td>745'</td>
<td>1000'</td>
<td>1000'</td>
<td>300'</td>
<td>300'</td>
</tr>
<tr>
<td>Beam</td>
<td>135' (2)</td>
<td>110'</td>
<td>110'</td>
<td>106'</td>
<td>106'</td>
<td>200'</td>
<td>250'</td>
<td>110'</td>
<td>110'</td>
</tr>
<tr>
<td>Displacement (metric tons)</td>
<td>93,000</td>
<td>NA</td>
<td>NA</td>
<td>66,667</td>
<td>66,667</td>
<td>126,000</td>
<td>126,000</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>DWT (Register/Design)</td>
<td>80,000</td>
<td>NA</td>
<td>NA</td>
<td>50,000</td>
<td>50,000</td>
<td>170,000</td>
<td>170,000</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Max Manifold to Waterline Height @ MLLW</td>
<td>63'</td>
<td>63'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh Water Available</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cargo Connection Size</td>
<td>8&quot;</td>
<td>8&quot;</td>
<td>8&quot;</td>
<td>8&quot;</td>
<td>8&quot;</td>
<td>16&quot;</td>
<td>16&quot;</td>
<td>6&quot;</td>
<td>6&quot; &amp; 10&quot;</td>
</tr>
<tr>
<td>Vapor Connection Size</td>
<td>8&quot;</td>
<td>8&quot;</td>
<td>8&quot;</td>
<td>8&quot; barge, 16&quot; ship</td>
<td>8&quot; barge, 16&quot; ship</td>
<td>NA</td>
<td>NA</td>
<td>8&quot;</td>
<td>NA</td>
</tr>
<tr>
<td>Bunkers via Barge</td>
<td>No</td>
<td>NA</td>
<td>NA</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Tank Cleaning Permitted</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Crude Oil Washing</td>
<td>Crude Oil Washing</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Slop Facilities</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

| Products |
|-----------
| Gasoline | X | X | X | X | X |
| Distillate | X | X | X | X | X |
| Intermediates | X | X | X | X | X |
| Black Oil | X | X | X | X | X |
| Crude | X | X | X | X | X |
| MTBE | X | X | X | X | X |
| Benzene | X | X | X | X |
| Acid | X |
| Toluene | X |
| Aromatics | X |

1) Maximum draft for ship navigation channels is 39.5 feet fresh water. Note that maximum drafts for terminal berths may differ. Be advised that prolonged northerly winds associated with passing frontal systems can cause water depths to drop as much as four (4) feet. Consult with agents and pilots for latest information.

2) Berthing pocket 180-feet wide, beams greater than 135 feet must be approved by BP Shipping staff.

X) Deviations from Terminal minimum mooring requirements will be considered only for acceptable reviews of vessel-provided berth-specific dynamic mooring analyses. BP Shipping and Terminal Asset Superintendent will review these. An acceptable review will result in a documented certification. No deviation is allowed without this certification.

March 2005
### 7.2 Texas City Chemical Terminal Facilities

<table>
<thead>
<tr>
<th></th>
<th>Dock 50</th>
<th>Dock 51</th>
<th>Dock 52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berthing/Heading</td>
<td>Port</td>
<td>Starboard</td>
<td>Starboard</td>
</tr>
<tr>
<td>Designed Maximum Draft (fresh)</td>
<td>39.5’</td>
<td>15.5’</td>
<td>15.5’</td>
</tr>
<tr>
<td>LOA</td>
<td>1000’</td>
<td>300’</td>
<td>300’</td>
</tr>
<tr>
<td>Beam</td>
<td>105’</td>
<td>50’</td>
<td>50’</td>
</tr>
<tr>
<td>DWT</td>
<td>50,000</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Max Air Draft</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Fresh Water Available</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cargo Connection Size</td>
<td>6”-12”</td>
<td>8”</td>
<td>8”</td>
</tr>
<tr>
<td>Vapor Connection Size</td>
<td>10”</td>
<td>8”</td>
<td>8”</td>
</tr>
<tr>
<td>Bunkers via Barge</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Tank Cleaning Permitted</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Slop Facilities</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

#### Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Dock 50</th>
<th>Dock 51</th>
<th>Dock 52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraxylene</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Metaxylene</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mixed Xylenes (ARU)</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Styrene</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Be advised that prolonged northerly winds associated with passing frontal systems can cause water depths to drop as much as four (4) feet. Consult with agents and pilots for latest information. 2) Deviations from Terminal minimum mooring requirements will be considered only for acceptable reviews of vessel-provided berth-specific dynamic mooring analyses. BP Shipping and Terminal Asset Superintendent will review these. An acceptable review will result in a documented certification. No deviation is allowed without this certification.
7.3 General
The Refinery Marine Terminal consists of 9 docks, four barge-only docks, three barge/tanker docks and two crude tanker docks. Each dock has its own control center, operating parameters and safety systems. A detailed description of each dock is in this section.

7.4 Chemical Terminals Main Dock House
The Chemical Terminal Main Dock House is the center of operations for the entire Chemical Terminal.

7.5 Refinery Terminal Office Building/Meter Station
The Dock Office Building/Meter Station is the center of operations for the entire Refinery Terminal. This building houses the Marine Control Coordinator and the Day Supervisors. These individuals provide all policies, orders and work direction.

7.6 Dock 32
Dock 32 is located parallel to the Texas City Channel and consists of a 66' x 35' concrete and steel platform pier supported on steel and concrete pilings. It can accommodate up to four barges or one ship. All cargo is transferred through 8" hoses.

7.7 Dock 33/34
Dock 33/34 is located just west of Dock 32 sharing a common finger pier. The concrete and steel platform pier is supported on steel and concrete pilings. It can accommodate up to 2 barges. All cargo is transferred through 8" hoses.

7.8 Dock 37
Dock 37 is located south of Docks 33/34 and North of Dock 40/41. It consists of a 52' x 40' concrete and steel platform pier supported on steel and concrete pilings. The platform is shared with Dock 38 on the South side. It can accommodate up to four barges or one ship. All cargo is transferred through 8" hoses.

7.9 Dock 38
Dock 38 is located south of Docks 33/34 and North of Dock 40/41. It consists of a 52' x 40' concrete and steel platform pier supported on steel and concrete pilings. The platform is shared with Dock 37 on the North side. It can accommodate up to four barges or one ship. All cargo is transferred through 8" hoses.

7.10 Dock 40
Dock 40 is located south of Docks 37/38. It consists of a 50' x 80' concrete and steel platform pier supported on steel and concrete pilings. The platform is shared with Dock 41 on the South side. It can accommodate one ship. All cargo is transferred through 16" arms via a 30" pipeline to tankage 2 miles away.
7.11 Dock 41
Dock 41 is located south of Docks 37/38. It consists of a 50' x 80' concrete and steel platform pier supported on steel and concrete pilings. The platform is shared with Dock 40 on the North side. It can accommodate one ship. All cargo is transferred through 16" arms via a 30" pipeline to tankage 2 miles away.

7.12 Dock 50
Dock 50 is located on the North side of the Industrial Ship Canal. It consists of a concrete and steel platform pier supported on steel and concrete pilings. It can accommodate one ship. Cargo is transferred through 6", 8", 10", and 12" hoses.

7.13 Dock 51
Dock 51 is located on the North side of the Industrial Ship Canal. It consists of a concrete and steel platform pier supported on steel and concrete pilings. It can accommodate up to two barges. Cargo is transferred through 8" hoses.

7.14 Dock 52
Dock 51 is located on the North side of the Industrial Ship Canal. It consists of a concrete and steel platform pier supported on steel and concrete pilings. It can accommodate up to two barges. Cargo is transferred through 8" hoses.

7.15 Dock 54A
Dock 54A is located on the North side of the Industrial Ship Canal and west of the BP Chemical Docks. It consists of a concrete and steel platform pier supported on wood pilings. It can accommodate up to 2 barges. Shore side entry to this dock is accessed through the BP Chemical Docks. Cargo is transferred through 6" (acid) and 10" (aromatics) arms.

7.16 Dock 54E
Dock 54E is located on the North side of the Industrial Ship Canal and west of the BP Chemical Docks. It consists of a concrete and steel platform pier supported on wood pilings. It can accommodate up to 2 barges. Shore side entry to this dock is accessed through the BP Chemical Docks. Cargo is transferred through 6" arms.
8. Communications

8.1 Telephone Communications
Communication with the Terminal should be by the below listed telephone numbers.

<table>
<thead>
<tr>
<th>Contact</th>
<th>Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refinery Shift Supervisor</td>
<td>(409) 945-1330</td>
</tr>
<tr>
<td>MCC &quot;Meter Station&quot;</td>
<td>(409) 945-1300</td>
</tr>
<tr>
<td>Meter Station Fax</td>
<td>(409) 945-1307</td>
</tr>
<tr>
<td>Dock Scheduler</td>
<td>(409) 945-1348</td>
</tr>
<tr>
<td>Dock 32</td>
<td>(409) 945-1350</td>
</tr>
<tr>
<td>Dock 33</td>
<td>(409) 945-1332</td>
</tr>
<tr>
<td>Dock 34</td>
<td>(409) 945-1332</td>
</tr>
<tr>
<td>Dock 37</td>
<td>(409) 945-1334</td>
</tr>
<tr>
<td>Dock 38</td>
<td>(409) 945-1334</td>
</tr>
<tr>
<td>Dock 40</td>
<td>(409) 945-1347</td>
</tr>
<tr>
<td>Dock 41</td>
<td>(409) 945-1347</td>
</tr>
<tr>
<td>Dock 32, 33, 34 Security</td>
<td>(409) 945-1761</td>
</tr>
<tr>
<td>Dock 37, 38 Security</td>
<td>(409) 945-2351</td>
</tr>
<tr>
<td>Dock 40, 41 Security</td>
<td>(409) 945-1810</td>
</tr>
<tr>
<td>Dock 50, 51, 52</td>
<td>(409) 942-8893</td>
</tr>
<tr>
<td>Fax</td>
<td>(409) 942-8826</td>
</tr>
<tr>
<td>Dock 54A, 54E</td>
<td>(409) 945-1344</td>
</tr>
</tbody>
</table>

8.2 Radio Communications
For cargo transfer, vessels will be provided a portable radio for communication with the Dock Operator as a primary means of communication. All vessels are expected to monitor VHF channel 16 as a secondary means of communication. The vessel must provide a radio to the tankerman for constant communication between the tug and the barge.

The Refinery Terminal call letters are KTA 450 and the Chemical Terminal call letters are KPB 671. Each Terminal office is equipped with a VHF marine radio and monitors channel 16. Channel 16 is used for initial contact only and channel 18 is used as the Terminal-working channel. The Texas City Harbor Master also monitors channel 16. Vessels berthed or lay berthed waiting a dock shall monitor VHF channel 16.

8.3 Other Useful Communications

<table>
<thead>
<tr>
<th>Contact</th>
<th>Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Transportation</td>
<td>See Dock Security Above</td>
</tr>
<tr>
<td>Amato Line Handlers</td>
<td>(409) 945-7335</td>
</tr>
<tr>
<td>Galveston Pilots</td>
<td>(409) 740-3336</td>
</tr>
<tr>
<td>Galveston Tugs</td>
<td>(409) 744-5215</td>
</tr>
</tbody>
</table>
9.0 Berthing and Mooring
The maximum allowable wind speed for mooring or unmooring is winds less than 35 MPH sustained and less than 40 MPH gusts.

9.1 Vessel Tank Conditions
Before arriving at the Terminal, all cargo tank openings, ullage hatches, sighting ports and permanent ballast tank tops shall be closed and secured. For vessels required to have an inert gas system, all cargo tanks, including slop tanks, shall be properly inerted to less than 8% oxygen by volume. After mooring, no tank will be opened or vented or the inert gas pressure released without the permission of the Dock Operator.

9.2 Pilots and Tugs
All ships must have a pilot on board before arriving to or sailing from this Terminal. Mooring or unmooring without tugs is prohibited. The number of tugs that a vessel will use and their bollard pull will be at the discretion of the Master but the following minimum requirements must be followed.

<table>
<thead>
<tr>
<th>As Built DWT</th>
<th>Loaded</th>
<th>Empty</th>
<th>Bollard Pull</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 10,000</td>
<td>1 tug</td>
<td>1 tug</td>
<td>Sufficient</td>
</tr>
<tr>
<td>10,000-20,000</td>
<td>1 tug</td>
<td>1 tug</td>
<td>Sufficient</td>
</tr>
<tr>
<td>20,000-80,000</td>
<td>2 tugs</td>
<td>2 tugs</td>
<td>1 tug must be over 20 tons Bollard pull</td>
</tr>
<tr>
<td>80,000-125,000</td>
<td>2 tugs</td>
<td>2 tugs</td>
<td>1 tug must be over 25 tons Bollard pull</td>
</tr>
<tr>
<td>Greater than 125,000</td>
<td>3 tugs</td>
<td>2 tugs</td>
<td>2 tugs must be over 35 tons Bollard pull</td>
</tr>
</tbody>
</table>

9.3 Angle of Approach
The angle of approach shall be as close to parallel to the docks as possible but not more than 10 degrees from parallel. Vessel personnel, pilots and masters shall understand this angle of approach before berthing.

9.4 Approach Speed
The maximum landing velocity shall not exceed 0.3 knots or 6 inches per second.
9.5 Mooring System
The Terminal mooring system provides a means for vessels to secure their lines to the docks using:
- Mooring bitts
- Piling Clusters
- Mooring dolphins
- Quick release hooks
- Electrically operated assist winches

9.6 General Mooring Requirements
It is required that all mooring be maintained in tight conditions at all times and mooring lines in the same service must be of similar material. Vessels shall at all times have a deck watch to ensure that a safe mooring is maintained. Listed below are the general mooring requirements. The Master of the vessel will instruct his/her crew as to the order the vessel puts out mooring lines assisted by Line Handlers. The vessel must be moored to the satisfaction of the Dock Operator.

- The general mooring layout shall be symmetric to the center of the ship.
- Breast lines shall lead from points as near to the ends of the vessel as possible.
- Lines in the same service shall be the same length, size, and material. Mixed moorings are allowed only when minimum mooring requirements are met.
- All mooring lines shall be kept taut at all times.
- On vessels fitted with automatic tensioning winches, the winches shall be set for manual operation and the brakes securely applied.
- Lines that are frayed, burred, or other damage shall not be used, such lines will not be accepted.
- Spectra / Kevlar lines are allowed at the Terminal and should be treated as wires.
- No wires or cables are to be used to moor inland river barges.

9.7 Specific Dock Requirements
Any additional specific dock requirements or variances will be explained in detail by either pre-arrival communications with the vessel agent or through the Dock Operator on vessel arrival.
The below listed docks have specific requirements which shall be met before any cargo transfer begins.

9.7.1 Dock 32
Inland Barges
6 lines total including 2 breast lines and 1 spring line forward, 2 breast lines and 1 spring line aft.
Ships/Ocean Going Barges
12 lines total including (forward) 2 head/bow lines, 2 breast lines, 2 spring lines; (aft) 2 spring lines, 2 breast lines, 2 stern lines.

9.7.2 Dock 33/34
Inland Barges
6 lines total including 2 breast lines and 1 spring line forward, 2 breast lines and 1 spring line aft.

9.7.3 Dock 37/38
Inland Barges
6 lines total including 2 breast lines and 1 spring line forward, 2 breast lines and 1 spring line aft.

Ships/ Ocean Going Barges
12 lines total including (forward) 2 head/bow lines, 2 breast lines, 2 spring lines; (aft) 2 spring lines, 2 breast lines, 2 stern lines.

9.7.4 Dock 40/41
14 lines total including (forward) 3 head/bow lines, 2 breast lines, 2 spring lines; (aft) 2 spring lines, 2 breast lines, 3 stern lines.

9.7.5 Dock 50
Vessels less than 10,000 tons deadweight shall use a minimum arrangement including:
Forward - 3 spring, 2 breast lines
Aft - 3 spring, 2 breast lines

Vessels less than 20,000 tons deadweight shall use a minimum arrangement including:
Forward - 3 spring, 2 breast lines, 2 head lines
Aft - 3 spring, 2 breast lines, 2 stern lines

Vessels less than 30,000 tons deadweight shall use a minimum arrangement including:
Forward - 3 spring, 3 breast lines, 2 head lines
Aft - 3 spring, 3 breast lines, 2 stern lines

Vessels 30,000 tons deadweight and greater shall use a minimum arrangement including:
Forward - 3 spring, 3 breast lines, 3 head lines
Aft - 3 spring, 3 breast lines, 3 stern lines
9.7.6 Dock 51
6 lines total including 2 breast lines and 1 spring line forward, 2 breast lines and 1 spring line aft.

9.7.7 Dock 52
6 lines total including 2 breast lines and 1 spring line forward, 2 breast lines and 1 spring line aft.

9.7.8 Dock 54 A&E
6 lines total including 2 breast lines and 1 spring line forward, 2 breast lines and 1 spring line aft.

General—All lines are to be separate, not “on the bight”. Where lines are secured “on the bight”, two (2) separate lines shall be used for each lead. Lines for each lead shall be of similar material (no mixed moorings) and maintained with similar strain at all times.

9.7.9 Vessel Movement after Mooring

If a vessel moves away from the dock or fendering system in either direction along the dock or if all mooring lines are not taut, cargo transfer operations will be stopped and not resumed until the situation has been corrected.

During inclement weather such as strong winds, the Dock Operator may direct the vessel to put out additional lines. Under severe conditions, tugboats, at the owner’s expense, may be required to help keep the vessel alongside.

9.8 Outside Vessels
The Terminal is in a Security Zone, no vessels are allowed to enter the Terminal docks other than those involved in transfer operations or scheduled for transfer operations.

9.9 Ocean Going Barges
Ocean going barges are subject to the same Terminal requirements as ships. If the barge/tow is an integrated unit, the towboat is allowed to leave the notch prior to hose connection, but can’t leave or return to the notch during cargo operations. The towboat is not allowed to break out of the notch and lay alongside the barge.

9.10 Anchors
Except in emergency situations, do not use anchors while moored at this Terminal. In cases where anchors must be dropped, notify the Dock Operator before the anchor is either dropped or raised.
10. Cargo Operations

10.1 Communication Language
All communications between the Terminal and the vessel will be conducted in English. Both the PIC on the dock and the vessel must be able to communicate in English at all times. All cargo transfer will be stopped if clear communication in English cannot be maintained.

10.2 Notice of Readiness
The Notice of Readiness will be signed and accepted by the Dock Operator during the pre-transfer conference. The Notice of Readiness acceptance time will be the time that the Notice of Readiness is signed.

10.3 Readiness to Load
All cargo tanks and pipelines must be in a state of cleanliness for the cargo to be loaded prior to docking. The Terminal will under no circumstances assume responsibility for cargo contamination due to dirty vessel tanks or pipelines.

10.4 Material Safety Data Sheets
Detailed information on each product loaded at this Terminal is contained in the product MSDS sheets and will be provided during the pre-transfer conference.

10.5 Minimum Number of Vessel Crew
The vessel shall at all times be adequately manned for emergencies and conducting all anticipated cargo operations. At a minimum, at least one person shall be on deck at all times and one vessel officer shall be the PIC.

10.6 Maximum Allowable Pressure
For all vessels the discharge or loading pressure shall not to exceed the MAWP of the line(s) being used. The maximum pressure will be agreed upon during the pre-transfer conference.

10.7 Cargo and Ballast Tanks Openings
All cargo tank openings will remain closed at all times for cargos under vapor control and inerted vessels. For all other cargos, ullage openings and vents with proper flame screens will be allowed opened. Generally, ullage openings should remain closed during the operation and vented through the vessel’s venting system. All ballast tank openings, other than the ballast tank vent, shall be closed. Ballast tank vents and ullage openings used for venting shall have a properly fitted flame screen.
10.8 Cargo Tank Venting
The cargo tank venting system will be set for the appropriate operation. Venting of volatile vapors is prohibited. Volatile vapors under vapor control must be isolated from non-volatile vapors.

10.9 Inert Gas System
All vessels, if fitted with an Inert Gas System, must have the system in operational condition and in compliance with IMO (SOLAS) standards. Vessels not in compliance cannot conduct cargo operations at the Terminal.

**THE SHIP IS REQUIRED TO ADVISE THE TERMINAL ANY TIME THE INERT GAS SYSTEM FAILS TO MEET REGULATORY REQUIREMENTS. ALL TANKS MUST BE INERTED LESS THAN EIGHT PERCENT OXYGEN OR LESS.**

The vessel's designated PIC of liquid transfer must confirm that all cargo spaces are fully inerted and the oxygen content of these spaces is 8% (by volume) or less. The Terminal shall have the right to monitor the oxygen content of the inert gas supply main to the tank system and of randomly selected cargo spaces. The vessel shall make these tanks available and conduct the sampling upon request. The Terminal shall have the right to require the vessel to resample selected cargo spaces if the situation so warrants. Inert Gas pressure in cargo spaces must be always be positive.

**PURGING OF CARGO TANK SPACES TO THE ATMOSPHERE IS NOT ALLOWED AT THE TERMINAL.**

In the event of the failure of the inert gas system to deliver the required quality and quantity of inert gas, or the inability to maintain a positive pressure in the cargo and slop tanks, action must be taken immediately to prevent any air being drawn into the tanks. All cargo operations shall be stopped and the Inert Gas isolating valve closed. Operations will remain shutdown until repairs are completed.

Vessels that are unable to comply with regulatory standards established for the safe operation of an inerted system will be removed from the Terminal.

10.10 Connection of Transfer Hoses/Arms
All vessel cargo manifold connections to be used for cargo operations shall be pre-fitted with a flange diameter required to match the shore connection.

**NOTE:** Reducer spools shall be made from steel. Alloy or cast spools are not acceptable.

The vessel's crew is responsible for securing and disconnecting the shore loading arms/hoses to and from the vessel's manifold flange and ensuring that the connection is oil tight. This includes clean up of arms/hoses flange face prior to installing the blanks. Any delay in the ability of the shore to transfer cargo due to slow hookup will be for the vessel's account. The vessel will not be permitted to commence the transfer until the Terminal and Vessel PIC have inspected the manifold connection(s) and agree that they are liquid tight and drip free.
10.11 Emergency Shutdown System
Each dock is equipped with an emergency shutdown system. The Dock Operator is responsible for placing the emergency shutdown button on loading vessels. By depressing the button, the valve at the dock will close automatically, the shore pump will shutdown and a horn is activated to alert the Dock Operator. The emergency shutdown system will be tested at the beginning of every cargo loading to ensure its proper operation. The emergency shutdown system is to be used for emergency situations only and not for normal cargo transfer shutdown.

10.12 Pre-Transfer Conference
Prior to the transfer operation, a pre-transfer conference will be held between the Dock Operator and the vessel PIC to discuss in detail every aspect of the transfer operation. During this meeting, a joint inspection shall be conducted to complete the USCG Declaration of Inspection and any other checklist that are appropriate for the transfer. Daily Weather Synopsis including a Weather Threat Assessment is to be incorporated into the pre-transfer conference and ongoing vessel communications. If severe weather is forecasted, this will allow both our Terminal and vessels to make best preparations. Any questions concerning transfer procedures should be discussed at this time.

10.13 Portable Radios
Upon arrival at the dock, the vessel will be provided with an UHF hand-held radio. The dock operator will have a similar radio. This radio must be returned to the dock operator prior to departure in the same condition as was received. Damaged radios will be repaired or replaced at the vessel Owner’s cost.

When calling the Dock by radio, transmit: “Vessel Name” to “Dock number”

10.14 Start of Transfer
When starting a cargo transfer, the cargo transfer hose/arm connection shall be checked for possible leaks by the vessel person-in-charge. Vessel personnel shall be stationed at the manifold each time a transfer is started.

10.15 Cargo Loading
Cargo loading will begin when the Dock Operator and the vessel person-in-charge have each announced that they are “ready to load”. At this point the proper valves on both the vessel and the shore will be opened and the cargo pump will be started. The cargo pump will not be started until all vessel valves to at least one tank to be loaded are fully open.

10.16 Ship Stability
While tanker personnel have always had to take account of longitudinal bending moments and vertical shear forces, the actual stability of the ship has seldom been a prime concern. However the introduction of double hulls into tanker design is likely to change that situation.
The most critical stages of any operation will be while filling the double bottom ballast tanks during discharge of cargo, and emptying the tanks during loading of cargo. If sufficient cargo tanks and double bottom tanks are slack simultaneously, the overall free surface effect could well be sufficient to reduce the transverse metacentric height to a point at which the transverse stability of the ship may be threatened. This could result in the ship suddenly developing a severe list. Large free surface area is especially likely to threaten stability at greater soundings (innages) with associated high vertical center of gravity.

It is imperative that tanker and terminal personnel involved in cargo and ballast operations are aware of this potential problem, and that all cargo and ballast operations are conducted strictly in accordance with the ship’s loading manual.

10.17 Safe Fill Heights
Vessels shall not load a cargo tank above the level of the overfill device required by 46 CFR 39.20-7 or closer than 152.4 mm (6 Inches) to the cargo deck as measured at the official gauging point.

10.18 Topping Off
The ship should advise the terminal when the final tanks are to be topped off and request the terminal, in adequate time, to reduce the loading rate sufficiently to permit effective control of the flow on board the ship. After topping off individual tanks, master valves should be shut, where possible, to provide two valve segregation of loaded tanks. Ullages should be checked from time to time to ensure that overflows do not occur as a result of leaking valves or incorrect operations. The number of valves to be closed during the topping off period should be reduced to a minimum.

10.19 Cargo Discharge
Cargo discharge will begin when the Dock Operator notifies the vessel person-in-charge that all shore valves are open and that the shore is ready to receive cargo. At this point, the vessel shall notify the Dock Operator that pumping has begun at a reduced rate. The reduced rate shall be maintained until verification has been made that all connections are good and the Terminal verifies that they are receiving cargo. At the direction of the Dock Operator, the rate may be increased.

10.20 Pre-notice of Pumping Rate Change
The vessel or Dock operator shall give ample notice of any changes in transfer rates.

10.21 Standby and Shutdown
The vessel shall give a 15-minute and a 5-minute standby notice prior to cargo completion. The vessel shall announce “Shutdown” no less than 60 seconds prior
to cargo completion. The terminal may also require a 1 to 2 hour notice prior to completion to notify outside personnel.

10.22 Emergency Cease Pumping
At any time during the transfer operation if either party announces “Shutdown”, the transfer of cargo shall stop immediately. In the event of an emergency, the emergency shutdown button shall be activated and the Dock Operator notified immediately. Cargo transfer shall not resume until both the vessel and the Dock operator announce “Ready”.

10.23 Stop Transfer Operations Conditions
Transfer operations shall not be started or, if started, shall be stopped when any of the below listed conditions exist.

Emergencies – In the event of a fire or spill or breakaway.

Communications – Upon loss of communications. The vessel shall make periodic radio checks with the Dock Operator.

Person-in-Charge – When there is no Person-in Charge on either the vessel or the shore.

Vessel Movement – When the vessel moves away from the fender system or if mooring lines are not taut.

Inert Gas System – When a failure of the inert gas system occurs.

High-level Alarms – When high-level alarms on either the vessel or shore are activated.

Inclement Weather – When electrical storms or high-wind conditions are approaching the Terminal. If sustained winds of 25 MPH or greater or gust over 35 MPH, all transfer operations shall stop. Under severe conditions, tugboats may be required to keep the vessel alongside. In the case of barges, towboats may be required to do the same. The Dock Operator may direct the vessel to put out additional lines during periods of strong winds.

10.24 Suspension of Transfer Operations
Terminal – In the event of continued or flagrant disregard of the Terminal regulations by any vessel, all operations will be stopped upon notice, and the vessel will be ordered off the dock for appropriate action to be taken by the charterers and owners.
10.25 Blowing and Draining of Hoses/Arms
After transfer operations are complete, the hoses/arms will be cleared of cargo before being disconnected. All hoses are raised and drained back to the shore and to the vessel. Arms and hoses at the Chemical docks are blown with nitrogen. This may require that a small amount of cargo be put back into vessel cargo tanks to ensure that the hoses are free of cargo. No gauging shall take place until draining of the hoses has been completed.

10.26 Disconnecting of Transfer Hoses/Arms
The vessel manifold and drain valve shall be closed prior to disconnecting. The transfer hoses/arms will be fitted with blank flanges with a bolt in every hole before being lifted from the vessel. Immediately following disconnecting, the vessel shall fit blanks on the vessel manifolds.

10.27 Ballast
No vessel at this terminal may take on ballast while discharging or loading cargo, unless all of the following conditions have been met:

The vessel has a completely segregated ballasting system, which is in no way connected to the cargo tanks.

The operation has been reviewed in detail with the Marine Terminal Supervisor and his specific permission for this ballasting has been obtained.

At the Refinery Dock’s, after cargo transfer is complete, six (6) hours maximum time will be allowed for ballasting your vessel and sailing.

Non-compliance with the foregoing Safety Rules and Regulations will subject your vessel-berthing permit to cancellation and penalties applied.

10.28 Vapor Recovery Requirements
10.28.1 Refinery Terminal
When loading regulated VOC cargoes, tank vessels must be equipped with a U.S. Coast Guard approved vapor collection system described in 49 CFR and must have on board all documentation for the vapor collection system required by the Coast Guard including a Certificate of Inspection for American flagged vessels and a Certificate of Compliance for foreign flagged vessels.

Cargo tanks and appurtenances shall be maintained in a vapor tight condition and proven vapor tight at 0.8-psig minimum at intervals not to exceed 24 months and upon completion of related maintenance, repairs or modifications. Documentation of the most recent tightness test shall be kept on board the vessel.
Be rated for a minimum 1.5-psig internal pressures.

Be equipped with a dual high level alarm and tank overfill alarm system on all cargo tanks with audible and visual alarm indications. Reference 46 CFR 39.30.

Have a closed gauging system, which allows the tank levels to be determined without opening the tanks to the atmosphere.

Tank barge overfill protection with the standard male “blue” plug for connection to the shore side overfill control system (“scully box”) must be labeled with the total inductance and capacitance of the switches and cabling on the barge. The shore side portion of the overfill control system will be capable of handling a barge with a maximum connected inductance of 0.6 mH and a maximum connected capacitance of 0.18 mH.

10.28.2 Chemical Terminal

When loading paraxylene, metaxylene or mixed xylenes, be equipped with a U. S. Coast Guard approved vapor collection system described in 49 CFR and must have on board all documentation for the vapor collection system required by the Coast Guard including a Certificate of Inspection for American flagged vessels and a Certificate of Compliance for foreign flagged vessels.

Be rated for a minimum 1.0 psig internal pressure.

Be equipped with high level alarm, tank overfill alarm, system and cargo level monitoring system. Reference 46 CFR 39.20.

Be equipped for closed gauging and sampling equipment. Those vessels equipped without closed gauging and sampling equipment will be responsible for the additional time delays incurred.

All vessels loading at BP must arrive liquid-free and blown dry unless specific instructions advise otherwise.

All vessels must be able to receive nitrogen purge at a rate of 2,000 standard cubic feet per minute (SCFM) without violating the vessels pressure rating. Vessels loading paraxylene, metaxylene or mixed xylenes will be nitrogen purged to less than eight 8% oxygen by volume prior to loading.

Provide table or curves showing pressure drop vs. nitrogen purge rate in SCFM, if the vessel is required to purge through the vapor collection system (vessel is not gas free).
11. Cargo Operations-Special

11.1 Tank Cleaning
Any tank cleaning at the Terminal is prohibited.

11.2 Crude Oil Washing
Crude oil washing is allowed following IMO procedures, the vessel and the Dock Operator will complete a Terminal Crude Oil Washing Checklist during the pre-transfer conference.

11.3 Gas Freeing
Gas Freeing at the Terminal is prohibited.

11.4 Dock 40/41 Vessel Manifolds
Vessels are not allowed to use adjacent manifolds at these docks due to cargo arm restraints; manifolds 1 & 3, 2 & 4, or 3 & 5 must be used.

12. Cargo Operations-Barge

12.1 General
The requirements of the proceeding two “Cargo Operations” sections shall apply to all barges. In addition, the requirements of this section shall apply to all barges.

12.2 Pre-transfer Conference
Refer to section 10.12
In addition, the towboat Captain/Operator and the Dock Operator shall have a pre-transfer conference to discuss the general safety precautions for vessels. Ignition sources and the possible presence of flammable mixtures will be included in this discussion.

12.3 Minimum Number of Barge Tankerman
Each barge transferring cargo shall have at least one tankerman per barge.

12.4 Maximum Allowable Pressure
The loading or discharge pressure shall not exceed 100 PSI at the barge manifold.

12.5 Maximum Allowable Rate
The maximum allowable rate will be determined during the pre-transfer conference.

12.6 Safe Fill Heights for Barges
Maximum safe fill heights for compartments shall be considered to be a minimum ullage of 6 inches below the deck plate. It shall be the responsibility of the tankerman to maintain a safe ullage at all times during the operation and transit of the vessel.

12.7 Tug in Notch, “Married Unit”
If the towboat and barge are designed to operate and run like a ship, it will be allowed to remain in the notch at the dock. The towboat is not allowed to lie alongside the barge.

12.8 Towboat and Barge
Towboats must separate from their river barges at least 10 to 15 feet prior to commencement of the cargo transfer. Towboats must be available at all times to attend their tows. Towboats must lie in a position upwind from the transfer or out of the way of potential cargo vapor venting. For watch changes, towboats may return to the tow to make the changes. They must stay as clear of the immediate manifold transfer area as is possible. Prior to coming alongside for these changes, the Dock Operator must be notified and give permission. Towboats must monitor Channel 16 and be available to Terminal personnel at all times.

12.9 Towboat Standby
The Dock Operator will direct the Captain/Operator to a standby location. Towboats shall standby on VHF Channel 16 and inform the Marine Control Coordinator of any towboat movements. Upon release of the barge, the towboat should make up its tow and promptly leave the Terminal.

12.10 Lay Berth for Barges
Barges are not allowed to lay berth at this Terminal unless prior permission has been used in this decision are the following criteria:
- The barge is part of a tow that is transferring cargo at this Terminal.
- The barge will reload at this Terminal after discharging.
- The barge has been called in and is awaiting a dock.
- A barge that will be discharging can be brought in for sampling purposes.

12.11 Unmanned Barges
If a vessel is brought into an unmanned dock for the purpose of inspection, waiting for cargo to be lab tested or has been lay berthed for any reason, it shall be the responsibility of the towboat to ensure that a strict watch of each unmanned barge is maintained.

12.12 Boilers
Running “On Deck” boilers is prohibited at the Terminal.
12.13 Void Tanks on Barges
Void tanks on barges shall have no oil and no more than 6" of water in them prior to loading or discharging.

13. Cargo Quantities and Quality

13.1 General
Protecting the quantity and quality of the cargoes shipped and received by this Terminal is an important part of the transfer operation. An inspection of the cargo tanks will be made before transfer for safety and readiness of the tanks. An inspector will gauge the cargo tanks before and after the transfer to ensure that the proper quantity has been transferred. An inspector will also take samples before, during and/or after cargo transfer as appropriate. At times the cargo transfer and the cargo release may be delayed while these samples are tested.

13.2 Open Gauging and Sampling of Non-Inerted Vessels
There are regulations regarding limitations imposed on the practice of open hatch gauging and sampling of vessels berthed at the Terminal. Refer to sections 10.7 and 10.8.

On non-inerted barges where this is not possible, qualified independent inspectors will be allowed to open a small hatch (es) and sample the vapor in vessel tank(s) for H2S. If this test indicates 10 ppm or greater H2S level, the hatches may not be opened to gauge or sample the vessel cargo tanks. If this test confirms that H2S concentrations are less than 10 ppm, then open hatch gauging and sampling of that cargo tank may proceed, one at a time. Dock operations must be made aware of the results of the testing and give the permission to proceed. Inspectors are to open the hatches only to the minimum extent necessary to perform their work.

13.3 Open Gauging and Sampling of Inerted Vessel
Inerted vessels shall not de-pressurize cargo tanks or manual gauge and/or sample cargo tanks.

14. Terminal Services

14.1 Ballast, Bilge, and Slop Handling
The Terminal has the capability to receive ballast/slops from product tankers at the Refinery Terminal only under restricted conditions. The Terminal must receive prior notification in order to accommodate discharges to shore facilities. Vessel will provide a 1 qt. Sample of the liquid to be discharged. The sample will be tested prior to discharge of dirty ballast, bilge water, slops, and tank washings.
14.2 Garbage Reception Facilities
Notification and arrangements shall be made with the Port of Texas City prior to garbage disposal. Regulated garbage will be handled in accordance with 7 CFR 330.400 and 9 CFR 94.5.

14.3 Pay Telephones
Pay telephones are located at the approach to each dock at the Terminal. These pay telephones are to be used for all personal calls. The usage of Terminal telephones is limited to emergencies, and Terminal business.

14.4 Potable Water
Potable water is available at each dock at this Terminal. Consult with the Dock Operator for proper connection points.

14.5 Security and Visitor Access to Vessel
It is the responsibility of the owner, operator, Master, or agents of vessels to restrict traffic to and from the vessel. A list of persons allowed to visit the vessel will be furnished to the Terminal 24 hours prior to the vessel's arrival. No person shall be allowed entrance to the Terminal unless authorized by the Terminal.

14.6 Stores Handling
Receipt of stores by water is permitted by a Terminal approved service. Vessel cranes may not be used to lift stores of any type from the dock.

14.7 Bunkering by Barge
The Terminal does not provide bunkers. Bunkering by a BP approved barge owner is allowed with approval from the Marine Control Coordinator at Docks 40 and 41 only. The bunker barge must obtain permission from the Marine Control Coordinator and the Dock Operator before going alongside vessels.

15. General regulations

15.1 Security
A Declaration of Security (DOS) agreement will be executed between the responsible vessel and the Dock Operator. The Declarations of Security provides a means for ensuring that the critical security measures that could be implemented by either the Terminal or the vessel will be properly implemented throughout the vessel's presence within the Terminal. It apportions the responsibilities for security arrangements and procedures between a vessel and Terminal, similar to the existing Declaration of Inspection for vessel and Terminal oil transfers.

The Declaration of Security should be completed by:
• The Master of the Vessel Security Office on behalf of the vessel
• The Dock Operator, or if the COTP determines otherwise, by any other organization responsible for shore-side security, on behalf of the Terminal

The Declaration of Security should address the security requirements that can be shared between a Terminal and a vessel and should state the specific responsibilities of each. Both the vessel and Terminal will keep a copy of the Declaration Of Security.

For facilities that frequently receive the same vessel, a Declaration of Security for each interface is not required if the vessel and Terminal enter into a private agreement that states the responsibility for each during the vessel/port interface. These agreements should be included in the vessel security plan and Terminal security plan.

Vessel personnel (crewmembers, agents, contractors, vendors and passengers) will not be permitted to depart or arrive the Terminal unless their identification is provided and verified, in advance.

24 hours prior to arrival all vessels (blue and brown water) are required to submit a copy of their crew-list to the BP Terminal. A copy of this crew-list is to be kept by Terminal Security to verify crewmember’s identity. All personnel are required to show a photo ID prior to entry. Crewmembers who do not have a photo ID may deliver a photocopy of their passport to the guard gate prior to exiting the terminal; this will be used to verify their identity on return to the vessel.

15.2 Drug and Alcohol Policy
It is the policy of the Terminal that the use, possession, distribution, sale, or being under the influence of alcohol or a controlled substance on the premises of the Terminal is prohibited and is cause for expulsion from the Terminal and denial of future entry.

15.3 Gangways
The Terminal furnishes gangways for safe access at each dock. Moving and securing these gangways is a two-man job. Tankerman and deck hands are expected to provide assistance in moving and securing gangways. The vessel shall provide and maintain a suitable gangway affording safe access to and from the ship if the shore gangway is not available or does not fit the vessel’s arrangement. Vessels are expected to provide and rig an effective safety net and have a life buoy and lifeline available in the immediate vicinity of the gangway.
15.4 Painting/Sandblasting
Spray painting and sandblasting while at the Terminal is prohibited.

15.5 Photography
Unless permission has been obtained prior to arrival, all photography is prohibited. Permission is arranged through BP security. The person taking the photographs must be accompanied by BP personnel.

15.6 Work on Docks by Contractors
Before any work on or from the dock is performed on a vessel or dock, permission shall be obtained from the Terminal and the proper “work permit” shall be obtained from the Dock Operator. Proper personal protective equipment must be worn.

15.7 Repairs on Vessels
Repairs that involve hot work are not allowed at any time the vessel is alongside the Terminal. Repairs of any type affecting vessel operations, not requiring hot work, that are to be carried out on board the vessel or barge must be pre-approved by the Terminal.

15.8 State of Readiness of Vessels
Any repairs or maintenance done to the vessel that affects her ability to maneuver must be pre-approved by the Terminal and if authorized, a standby tug must be in the vicinity during the time vessel is disabled.