


From: BRRF MARINE SUPER /SM BRRF.Marine.Super@exxonmobil.com 
Subject: RE: [Lama-daily] Louisiana Maritime Association (LaMA) Daily Report for 03/08/2018
Date: March 8, 2018 at 3:02 PM
To: Ron Branch ron.branch@louisianamaritime.org



CAPT Ron,

Please see our high water procedure attached. The Hold in tug highlights from page 3 are
39ft – 1 hold in tug for ships 50k to 79kLT displacement, 2 tugs for 80kLT or greater
42ft – 1 hold in tug for ships up to 49kLT, 2 tugs for 50-79kLT, 3 for 80kLT and over

Thank you.

Regards,
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From: lama-daily-bounces@listserve.louisianamaritime.org [<mailto:lama-daily-bounces@listserve.louisianamaritime.org>] **On Behalf Of** Ron Branch
Sent: Thursday, March 08, 2018 8:00 AM
Subject: [Lama-daily] Louisiana Maritime Association (LaMA) Daily Report for 03/08/2018



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River Stage (Terminal Gauge)	Requirement
<p>30'</p>	<p>Review and implement high water safety practices for equipment & personnel. Implement Terminal high water mooring guidelines</p> <p>Heighten awareness with regard to less experienced employees, river stage rise & fall, river velocity, vessel mooring, etc.</p> <p>DCC to respond to oil spills on the inside of the Dock only & receive assistance from ELIRT</p>
<p>34'</p>	<p>Utilize 6 man mooring crew for ships. Special emphasis on setting spring lines with 2 three man crews</p> <p>Marine Superintendent to evaluate the feasibility of docking ships in #3 Berth & #4 berth in an effort to utilize the elevated hoist towers in those locations When possible bring breast lines straight to the hook as opposed to the fairlead. Short/up & down leads are to be avoided if possible. Consider utilizing mooring lines from the center bull nose as breast lines and sending breast lines forward as headlines</p>
<p>39'</p>	<p>Controllers begin distribution of "High Water Status & Action Steps" form & Coke terminal check every shift (see attachment "A") Schedule additional Berth PIC in locations where more than 3 transfers will take place to assist in monitoring of vessel mooring. Rounds should be made every 30 minutes (minimum)</p> <p>Notify vessels docked downstream of ships un-docking. Advise to standby Barges breasted on the outside of the Terminal will need to be positioned "rake up" only Caustic barge in #5 Berth will be permitted with the presence of a standby tug (minimum 1800 horsepower) during the duration of transfer, daylight hours only. Towboat must be made up to barge with engines running and pilot house watch maintained for immediate emergency response Day Supervisor to have portable gangways fabricated and positioned in strategic locations on the Terminal for safe barge access. (see attachment "B" for deployment procedure)</p> <p>All barges, inside and outside, will require 6 lines. 4 lines must be deployed in the direction to resist the current. The headline must be a wire (single or double) if equipped with a winch. Minimum of one spare line must be on all barges Ships to provide a minimum of two offshore headlines</p> <p>Refer to Tug requirement table (see attachment "C") to evaluate need for necessary mooring/sailing tugs & hold-in tugs</p> <p>Marine Superintendent to acquire ship mooring analysis from structural engineer to evaluate all ship mooring configurations and review with Dock Controller Ensure a minimum 200' "run-up" distance is available above and below ship docking location Ensure a minimum 200' clearance is available below ship sailing location Utilize personal fall limiters (Yo-Yos) to safely transit ship gangways/accommodation ladders if necessary Reference SSEP procedure DOCK-TA-0902 to determine maximum loading arm manifold connection above the water line (attachment "D")</p>

42'	<p>Primary Oil spill response is relegated to ELIRT. DCC to remain on standby</p> <p>Ensure no viscous material enters the closed slop system as slop line steam tracing will not be fully functional. Consider flushing slop line with gasoline each shift or blowing any material back to the vessel or tank field (see attachment "E")</p> <p>Breasting of barges is permitted on the inside of the Terminal only #5 berth is shutdown with the exception of caustic barge and Coker Feed barges (see guidelines and chart below for Coker Feed barges).</p> <p>Station an Assist tow boat (minimum 1800 horsepower) at Terminal to assist with barge docking and emergency response</p> <p>Barge approach to berth must be assisted to ensure barges land flat onto the Dock structure. Barge sailing must be assisted to ensure barge disposition remains flat when un-docking</p> <p>Ensure a minimum of 2 deckhands on barge(s) for mooring and unmooring operations</p> <p>Encourage more than four headlines for ships, if possible. Ensure no mixed mooring is utilized</p>
44'	<p>Consider shutting off high pressure steam line to Dock and fill with water to prevent floating & hammering</p> <p>Install temporary fender system inside Terminal to protect top portion of the Dock</p> <p>Ensure 150' "run-up distance between barges to allow a flat approach during barge docking operation</p> <p>No breasted barges at the Terminal (all barges are rake-up only)</p> <p>No barges allowed outside Dock</p>

Berth 5 Operation For River Level > 42 FT:

1. Only single 30kB barge to be permitted to discharge, doubled-up breasted barges not permitted.
2. Approach and mooring to be conducted during daylight conditions only.
3. Barges will only be allowed to moor with the rake facing upriver.
4. Primary Towboat to remain with the barge, wheelhouse continuously manned and engines available for use. Vessels will alternate running main engines ensuring one boat is running at all times.
5. Assist Towboat to be used for mooring / unmooring and to remain secured to the 30kB barge "on the hip" during the discharge. Berth 4 will be clear before docking occurs
6. Operator to inspect and ensure mooring lines in good condition (only new lines are allowed).
7. Operator to comply with minimum recommended mooring per BRRF requirements.
8. Vessel Operator will assign Tankerman Supervisor and additional Tankerman to the discharge of the barge. The primary role of the additional Tankerman will be to tend to the mooring lines during discharge.
9. To reduce probability of personnel falling overboard, Vessel Operator will utilize their fall protection equipment when personnel are working near the edge of the barge during line handling, mooring, and un-mooring.
10. Dock Walker will be made aware of these specific controls.

Recommended Mooring Pattern and Operational Wind Limits



Maximum Operating Environmental Limits	
	Wind Velocity
Stop Cargo Transfer	20 knots
Disconnect/Drain Arms	25 knots
Take Special Precautions	30 knots

NOTES:

- 1) Diagram applicable to all river stages greater 39 ft through crest measured at BRRF Docks.
- 2) Any Mooring Line Deployment shown as "2" may be a single two parted line from the barge to the shore bitt and back to the barge.
- 3) Two parted mooring lines shall be moored to 40 t mooring point on shore.
- 4) SW = Steel Wire; SN = Synthetic
- 5) The attached are minimum requirements. The site and barge reserves the right to increase the number of lines if need be.

Mooring Diagram Limits	
Length	300 ft
Beam	54 ft
Height	15 ft
Draft	12 ft
No Barges	1
Orientation	Raked Up

Minimum Mooring Requirements						
	M1	M2	M3	M4	M5	M6
Number of Lines	1	2	2	2	2	2
Mooring Line Type	SW	SN	SN	SN	SN	SN
Line Breaking Strength	21 mt MBL minimum					

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Vessel Displacement	39'-41' River Stage (Terminal Gauge)		41'-44' River Stage (Terminal Gauge)	
	<u>Docking / Undocking</u>		<u>Hold-in Tugs</u>	
	<u>Docking / Undocking</u>	<u>Hold-in Tugs</u>	<u>Docking / Undocking</u>	<u>Holding Tugs</u>
10 - 49 K	2	0	2	1
50 - 79 K	2	1	3	2
80 - 120 K	3	2	4	3

Note 1: Tugs should have a minimum of 2800 hp. If unable to meet minimum requirements increase number to tugs as appropriate. Agent shall keep ship's master, and pilots informed.

Note 2: Hold-in tug must be positioned and actively pushing at an angle and power given by ship's Master or his designee.

Extreme High River

- **High river procedures in place to operate the Terminal until 45' river gauge (1), and rising, is reached**
 - Vessel mooring
 - Ship mooring analysis from Ragland & Assoc.
 - Barge mooring analysis
 - Follow Terminal Regulations 38' and below
 - Utilize extreme high river guidelines for 39' and above
 - Assist tugs
 - Tug requirement table developed by Seariver for ships (minimum 2800 HP)
 - Assist/standby tugs for barges (minimum 1800 HP)
 - Ensure flat approach/departure
 - Assist in case of barge breakaway north of Terminal
 - Staffing
 - 6 man mooring crew (33')
 - High water rounds
 - Levees
 - Islands
 - Compressor/oxidizer
 - Brodie/sample shed
 - Slop pit/surface drain
 - Fab Shop/Trailers
 - Jiskoot
 - Permitting
 - Additional permit issuer required due to volume of permits needed during unit evacuation
 - Double manning of berths for vessel mooring observation
 - Miscellaneous
 - Have portable gangways built and stationed (38')
 - See deployment procedure
 - Acquire personal fall limiters (yo-yos) to assist in ship gangway access
 - Utilize ELIRT for oil spill response as necessary
 - DCC responds to spills inside the Dock only above 29'
 - ELIRT to respond to all spills at 41'. DCC simply assists
- **Dock Islands (including diaphragm pumps and hoses)**
 - Slop pit (wood form 3' 11" above grade - consider building levee)
 - P-110 A/B surface drain pumps, P-111 A/B flush water pumps (super sacked)
 - P-6 A/B at the Oxidizer (wood form)
 - Oxidizer junction box, east of D-6 A/B (wood form)
 - Switch rack north of the Marine Superintendent trailer (wood form)
 - Switch rack north of compressor skid (wood form)
- **Dock Slop Pit**
 - P-1 A/B required to remain in case of breach in one of the 5 lines feeding into the slop pit
 - Sewer line
 - Block valve in place
 - If slop pit is receiving excess flow via the Dock sewer line:
 - Remove slop pit cover between carbon canisters
 - Utilize T-handle (located at slop pit) to close block valve
 - Dock restrooms are out of service at this point
 - Acquire porta-cans
 - Slop line
 - Utilize plumbers plugs at dock slop drains to prevent excess flow
 - Dock sample shed/PPL sample trough
 - PPL sample trough can be isolated via valve at southwest corner of PPL

- Dock sample shed will require plumbers plugs
 - MVR drum D-5 overflow
 - Unit shutdown, in conjunction with shutdown of P-4 MVR water pump, will stop excess flow into the pit
 - MVR drum D-2
 - Unit shutdown will stop flow excess flow into the pit
 - Station generator at the Dock slop to power P-1 A/B
 - If PLC building is evacuated
 - If loss of power is expected
 - Place pumps in manual control to be operated locally
 - Install audible high level alarm
- **Marine Vapor recovery Unit (OUS at 43') (2)**
 - Remove pumps at compressor skid
 - P-2 A/B, P-3, P-4, P-5 A/B
 - Remove MVR analyzer
 - Remove equipment inside the Bentley Nevada cabinet
 - Fill D-2 drum to prevent floating
 - Remove Flare #2 blower at the oxidizer
 - Elevate triconex equipment at the oxidizer
- **Dock shutdown at 45' and rising**
 - Remove all vulnerable pumps from the Dock deck
 - See list
 - Remove Dock IT equipment
 - Standby house computers
 - Security office equipment
 - Secure/elevate/remove all loose material from the top of the Dock deck
 - See list
 - Slop drains
 - Clean pans to minimize oil sheens in river
 - Plug to prevent excess flow into the slop pit
 - Surface drains
 - Plug to prevent excess flow into 21/22 tank
 - Area at coker feed arm, three drains at compressor skid & man hole at the corner of S. Dock Rd. will require sewer covers and sandbags
 - Remove Crane Smart equipment at the base of the hoist towers
 - Portable lighting
 - Acquire portable/battery powered lighting to be utilized as navigational lighting if powered is lost to the Dock
- **Steam Line**
 - Open to atmosphere at the #5 Berth approach and all berths at 43' river in an effort to prevent buildup of condensate in the line rendering the steam line inoperable
 - Coker Feed arms in #5 Berth
 - Utilize steam turbine & steam hose at Utilities platform station to supply steam to Coker feed arms if transfer is necessary
 - Hot water injector
 - 125 degree "warm" water is sufficient to clear line
- **Miscellaneous**
 - Protect/maintain Dock access via the #4 Berth approach
 - Ensure integrity of the levee, west of the Dock sample shed
 - Turner to evacuate the Dock Fab shop
 - Tankermen companies to relocate the job boxes located in the Dock parking lot
 - Remove transformer between the Inspector & Marine Superintendent trailer

Note 1: The Dock PLC building (white house) begins to go under at 46'. The Mechanical organization will need time, prior to that point, to evacuate both the PLC and UPS building. Once that equipment is removed, the Dock is inoperable.

Note 2: The D-2 pit elevation is 44.6. The Mechanical organization will need time, prior to that point, to evacuate D-2 pit without risk of water overlapping into the pit.

* All river stages are referencing the Port of Baton Rouge gauge

** Elevation of the Dock boathouse pilings is 50.2 and did not require addressing in 2011 at the 45' river stage

LOADING ARM DISCONNECTION WHEN SLOP LINE IS OOS (Attachment "E")

This procedure has been developed for clearing a loading arm upon completion of the discharge so to facilitate loading arm disconnection.

The slop line that the loading arm normally would be cleared to is out of service. This procedure will direct the executioner to empty the outboard section of the loading arm to the vessel and then the inboard section of the loading arm to the "transfer line" that the vessel loaded/discharged into. **Notify tank field Controller of intentions prior to start-up of procedure.**

Items needed that should be ready at base of loading arm upon completion of discharge:

3/4" nitrogen connection
Nitrogen hose (inspected in good condition)
Wrench to install / remove nitrogen connection / plug
An empty barrel at high point bleeder piping

Complete transfer and secure as normal

- Block MOV at base of arm
- Close Brodie
- Verify vessel valve at loading arm connection is blocked

Drain outboard arm to vessel

- With barrel under high point bleeder line, remove plug, open high point bleeder valve and slowly de-pressure loading arm into barrel.

When arm is de-pressured

- Have vessel line up to a compartment with minimal or no pressure and open its valve at loading arm connection
- Allow outboard side of loading arm to drain back to vessel.
 1. Confirm air is pulling in through high point bleeder piping, indicating arm is draining.
- Check the end of the arm on the vessel the normal way (tap on arm, check bleeder, etc.) to confirm when outboard is drained and empty.
- Connect nitrogen hose to high point bleeder piping
- If outboard is not drained, with the vessel's permission, introduce nitrogen into the loading arm until outboard is confirmed to be clear

When outboard arm is drained

- Have vessel block its valve at loading arm connection

Drain inboard side of loading arm

- Advise tank field Controller of the intent to clear arm into the transfer line via nitrogen pressure
- Introduce nitrogen to loading arm and pressure loading arm up to Dock nitrogen pressure
- Verify:
 1. The loading arm lateral is lined up to the "loading line" the vessel transferred to
 2. The field is open to the tank
 3. Brodie valve is open
- Manually crack open the MOV at base of the arm until liquid can be heard flowing through the valve.
- Monitor liquid flowing through arm until nitrogen can be heard passing through valve instead of liquid.

When nitrogen is passing through MOV

1. Block MOV at base of loading arm.
 2. Block nitrogen
 3. Block high point bleeder valve
 4. De-pressure and remove nitrogen hose
- With barrel under high point bleeder, open high point bleeder valve and slowly de-pressure arm through high point bleeder piping until completely de-pressured.
 - Close high point bleeder valve and plug.
 - Check outboard end of arm again on ship
 - If empty, remove arm via standard procedure
 - Close Brodie
 - Block arm lateral away from loading line
 - Inform field arm is disconnected

Portable Gangway Deployment Procedure (Attachment "B")

- Personnel Required
 - Dock Connecting Crew, Berth PIC, Barge Tankerman/Deck hand
- Rigging
 - Connect two cargo hose slings to the handrails opposite the gangway wheels
 - Connect hoist tower hook to cargo hose slings previously installed
 - Ensure "tag line" is in place to be used to guide the portable gangway into position
- Deployment
 - Unlock portable gangway wheels
 - Hand the gangway tag line to the Tankerman/Deckhand
 - Lift the gangway using hoist tower
 - Tankerman/Deckhand will guide the portable gangway
 - DCC and Berth PIC will assist by pushing lightly if necessary
 - Once in position, utilize the hoist tower to lower the portable gangway onto the barge deck
 - Tankerman/Deckhand will secure the barge side of the portable gangway with rope
 - Have PSA verify the portable gangway is secure prior to personnel boarding vessel

Note: Utilize Bobcat or Stevedore to position portable gangway in deployment location if necessary

Note: Portable gangway wheels will need to remain unlocked to allow gangway to move as necessary

Note: If barge is in a location where a hoist tower is not available, notify the Dock Controller

LOADING ARM OPERATING ENVELOPES & CONNECTION CRITERIA (Attachment "D")

BERTH	ARM NO.	NAME SERVICE	SETBACK DISTANCE (ft.)	MANIFOLD DIAMETER (in.)	MAXIMUM CANTILEVER LENGTH (in.)	DESIGN TEMP °F	WIND LIMIT (mph)	HIGHEST CONNECTION ELEVATION (Ft. above deck)	LOWEST RIVER GAUGE (See Note 1)
1	2-5	Crude / Dirty	4 to 7	10+	60	150	35	25	3.8
			7 to 17	10+	60			42	3.8
2	1-5	Clean / Dirty	4 to 7	8	60	150	25	25	3.8
			7 to 17	8	60			42	3.8
1	6	Spent Caustic	4 to 14	6+	60	120	35	15	6.8
1	7	Diesel	4 to 21	8+	60	150	45	15	2.8
3	1	Aromatics #2	4-17	6+	60	150	35	15	3.2
3	2	99.9 IPA	4 to 14	6+	60	AMB.	35	20	5.0
3	3	Spent Caustic	4 to 14	6+	60	120	35	15	6.8
3	4	Lube	4 to 17	6+	60	150	35	15	3.8
4	1-5	Clean / Dirty	4 to 7	8+	60	150	35	25	13.8
			7 to 17	8+	60			40	13.8
5	1&2	Coker Feed	4 to 17	8+	60	450	35	15	3.8
5	3	Aromatics #4	4 to 12	6	48	150	40	16.7	3.3
5	4	Clean / Dirty	4 to 17	6+	60	150	35	15	3.8
5	5	Fresh Caustic	3.3 to 24.3	6+	60	AMB.	37	18.1	3.3

Notes:

- Setback distances are measured from the fender face. *Connection elevations are calculated by the river gauge reading plus elevation from water line to barge presentation flange. Barge presentation flanges are a minimum of 2' higher than River Gauge, Example: 3.8' river gauge would indicate loading arm connection elevation of at least 5.8'. Manifold cantilever lengths are measured from the vessel manifold support point to the end of the presentation flange (including spool pieces).
- Connections exceeding these elevations will produce high vessel manifold stresses and should be avoided. Vessels should be instructed to manage their ballast system to insure that their manifold flanges do not exceed these elevations.
- Dock deck elevation is 47.8 feet (river gauge).
- Wind limits are based solely on arm and vessel manifold stresses and are independent of wind limits established for vessel mooring. These limits represent a 20 second sustained wind gust.
- Ten foot maximum fore or aft drift measured from centerline of arm or group of arms.
- Formula: 47.8 - current (Dock) river stage + maximum connection elevation for the loading arm = maximum allowable connection elevation above the water line (PSA to monitor distance from manifold to water line)

Setback Distance - measured from the dock fender face to the vessel presentation flange.

Cantilever Length - measured from the vessel presentation flange to the first fixed manifold support (including spool pieces).

Data Source: Loading Arm & Manifold Stress Analysis - ER&E (June 1995)

Refining Terminal Regulations for Ships and Barges, Volume II - Baton Rouge (January 1991)

High River Stage - Status and Actions (Attachment "A")

Date: 06/02/09 Shift: X
 River Stage: Beginning of Shift: 41.5' Middle of Shift: 41.5'

Deep Draft Vessel Status:

Vessel Name			
Cargo(s)			
Estimated Finish Time		Estimated Sail Time	
Communications with vessel Captain:			
Ship holding fast?		Requesting tug assist?	

Vessel Name			
Cargo(s)			
Estimated Finish Time		Estimated Sail Time	
Communications with vessel Captain:			
Ship holding fast?		Requesting tug assist?	

Next vessel due at Docks (Name/Time): M/T Delaware Trader ETA 02/1800

Did any Deep Draft Vessel moor during this shift? (name) No
 Any mooring issues/comments: No

Barge issues:	N/A
Barge mooring being monitored adequately?	Yes

WCLA Levee Observations:

Levee reinforcement progress: N/A

Observed river water advancement? Some seepage at sample house levee, around Oxidizer area, and north of 26 TK

Shift Safety: Reviewed High water requirements with personnel
 Status of action steps: In progress
 Deviation from action steps? N/A
 Reason?
 Upcoming events: N/A

Issues or concerns: N/A

Dock Personnel High Water Round/Observations

The following items should serve as a guideline to be closely monitored during our structured round to be initiated during extremely high water conditions. NOTE: These areas will be shutdown and de-energized during this time. This observation list is not all encompassing and will not substitute for normal operating rounds to be made per shift.	
Oxidizer/Flare Area	
P-6 sump pump area	This area is currently protected by a wooden barrier and needs to be monitored for water seepage and/or damage
Junction Box east of Oxidizer	This area is also protected by a wooden barrier and will need to be closely monitored during rounds to mitigate damage to the Oxidizer/Flare electrical system
Plantation Pipeline Platform	Area will need to be monitored for potential leaks/damage
Oxidizer Blower Motor Area	This area should not be affected by flooding conditions but will need to be monitored for any residual oil/lubricant that may be present
Brodie Walk/Sample Shed Area	
Sample Shed	Normal rounds to be conducted including visual inspection of levee just east of sample shed to monitor seepage, Pressure gauges at Sample Shed will be used to observe line pressure and be relieved accordingly
Brodie Walk	Area will be closely observed for any problems that may develop and will be cleaned promptly
Compressor Skid/Slop Pit/Surface Drain Area	
D-2 Pit	D-2 (Mechanical Seal) drum will be filled to capacity upon completion of MVR Operations along with D-2 pit. This equipment will be monitored for structural damage during flooding
Compressor Area	Normal operating rounds to be performed paying particular attention to oil mist system along with P-4 (Make-up Water) platform
Surface drain/Slop Drain Area	This area will be sealed during shutdown, Normal operating rounds to be conducted
Mechanical Warehouse/Auxiliary Trailers	
Mechanical Warehouse	All equipment is elevated at this time
Auxiliary Trailers	Trailers are secured and normal operating rounds will be made to ensure protection of equipment
Jiskoot/East Bank Manifold Area	
Area is completely enclosed by sandbag/Dirt levees at this time. Normal operating rounds will be made and deficiencies resolved	

Dock Re-commissioning Team

Charter

Case For Action:

On Friday, May 13 2011, the BRRF docks were shut down as the Mississippi river level reached 43.5 feet. In the coming days, it is expected to crest at 45 feet, a level not experienced by the facility since 1927. Following shutdown of marine movements the dock was secured for high water and a significant portion of equipment and electronics was removed. Prior to resuming operations, the dock and river conditions will be fully assessed to ensure personnel safety, environmental performance, and reliable operations.

Objective & Deliverables:

The team will determine the conditions under which the dock can safely resume operations and a develop work plan to achieve that goal. Specific deliverables include:

- Clearly define the conditions under which the dock can safely resume operations, taking into account structural integrity, river conditions, mooring guidelines, and specific berth conditions
- Assess condition of submerged lines, slop system, and other facilities associated with process containment and develop mitigation plans as needed
- Plan for re-installation and proper function testing of facilities that were removed/disconnected
- Incorporate supply planning input to optimize the restart plan within the boundaries of flawless operations integrity

EMRE support

Consider using an EMRE engineer, working with local engineering firm, Ragland, Aderman and Associates (RAA), to evaluate the high water ramifications of berthing tankers.

Person should be involved at least 1 week ahead of 42' elevation and when river is predicted to reach 45' and above.

During 45' river and above, person should be located on site, not consulting from off-site location.

Person should become familiar with local engineering firm and work out any issues well in advance of 45' river stage.

Seariver support

- Barges and tows

Consider bringing in towing expert from Seariver to assist in suggesting / monitoring barge tie up configuration for every barge docking position.

Person should be on site and involved at least 1 week ahead of 42' elevation when river is predicted to reach 45' and above.

Person should participate / facilitate meetings with towing companies to determine / agree on barge tie-up policy for every barge docking position 2 weeks before predicted river level of 42'. Advise all towing companies of assist boat policy beginning at 42' at these meetings.

Person should monitor barge tie-ups during transfers to gather information and make changes to recommendations accordingly.

- Deep water vessels (Ships and Ocean going barges)

Consider bringing in ex-ship Captain to assist in suggesting / monitoring ship tie up configuration.

Person should be on site and involved at least 1 week ahead of 42' elevation and when river is predicted to reach 45' and above.

Person should participate in communications with EMRE, RAA, Marine Superintendent and ship captains to help determine / agree on ship tie-up policy for every ship that calls on the dock at or above the 42' level.

Person should work closely with Marine Superintendent and agents to understand Dock details as they apply to berthing of tankers

- Parallel mid-body concerns
- Loading arm envelopes
- Up-down breast lines
- Height of hoist towers at different locations

#5 berth standby boat

Standby boat positioned at #5 berth to protect against possible break away barges or large debris coming from upriver

Boat should be negotiated with towing companies 2 weeks prior to predicted 45' river level (Seariver)

Boat should be minimum 1800 HP

Boat should have clear instructions as to their duties and responsibilities

Barge docking assist boat

Used to assist primary boat to bring barges flat against dock when berthing

Boat should be contracted with towing companies 2 weeks prior to predicted 42' river level (Seariver)

When not assisting, boat to remain tied off at the Dock wherever possible and monitor channel 16 to stay in communication with Dock office. Possible to station assist boat at staging fleet if dock has nowhere else to tie off.

Boat should be minimum 1800 HP

Docking and hold in tugs for Ships and Ocean going barges (see attachment #1)

High river ship tug requirements start at 39' (Dock Gauge)

Communicate high river tug requirements to all Agents and tug boat operators (Bisso, EN Bisso, Crescent, Moran) and pilot associations (NOBRA and Federal) 2 weeks prior to predicted 39'.

Need to adjust river stage indications in the attachment from Dock gauge to Baton Rouge gauge when communicating to outside agencies.

Use attachment to make decisions when to release tugs from holding in when ships at the dock are partially unloaded.

Loading arm operating envelope limits (see attachment #2)

Our loading arm operating limit is 89' minus Baton Rouge river level gauge.

Local CPQ and Fairfax should be notified that we may exceed our loading arm operating limits when discharging a large ship and therefore not be able to discharge entire cargo 2 weeks before river level is predicted to be 42'

Consider installing facilities at #1 and #2 berth loading arms that would enable hose connection to ship using the ship's crane so to facilitate discharging cargo that wouldn't be discharged before reaching loading arm operating limit.

Mooring diagram process

- 39'-42' river stage

Marine Superintendent to work with RAA to establish mooring diagram (see attachment #3 example)

Marine Superintendent to send mooring diagram to ship for approval/modifications and work with RAA to establish final diagram.

Marine Superintendent to provide operations with final mooring diagram and discuss with operations controller prior to ship docking.

- 42' and higher river stage

Marine Superintendent to acquire Q.88 of ship (see attachment #4 example).
Seariver can provide or access to Q.88 website is needed.

Marine Superintendent to acquire mooring arrangement from ship

Marine Superintendent, ex-ship captain and RAA to establish mooring diagram using Q88 and mooring arrangement materials

Marine Superintendent to mooring diagram to ship for approval/modifications and work with RAA, ex-captain and ship to establish final diagram.

Marine Superintendent to provide operations with final mooring diagram and discuss with operations controller prior to ship docking.

Pre-arrival messaged to Captains of ships

Additional communication other than regular pre-arrival information is needed when the river level rises above the fender system and minimal dock is exposed to ships as they approach the Dock for berthing.. **Attachment #5** is an example of additional pre-arrival information sent to ships when fender system was completely under water.

Fender system on the inside of #1, #2 and #3 berths.

Consensus is that barges need at least 2 feet of contact against fender system for safe docking/mooring. This 2 feet minimum is compromised when the river level is at and above 44'. To mitigate this and enable the dock to keep functioning, "bumpers" were installed to allow barges to dock on the inside of #1, #2, #3 berths and maintain the 2' criteria.

These bumpers were strategically installed to allow 150' between barges so that a boat could face up to a barge and bring it in flat against the Dock.

These bumpers will allow (300' or less) barges to Dock at river levels above 44', with pipelines downstream, at the lower cluster of #1 berth, the upper middle cluster of #1 berth, the middle cluster of #2 berth and the loading arms on the inside of #3 berth,

EMRE support

Consider using an EMRE engineer, working with local engineering firm, Ragland, Aderman and Associates (RAA), to evaluate the high water ramifications of berthing tankers.

Person should be involved at least 1 week ahead of 42' elevation and when river is predicted to reach 45' and above.

During 45' river and above, person should be located on site, not consulting from off-site location.

Person should become familiar with local engineering firm and work out any issues well in advance of 45' river stage.

Seariver support

- Barges and tows

Consider bringing in towing expert from Seariver to assist in suggesting / monitoring barge tie up configuration for every barge docking position.

Person should be on site and involved at least 1 week ahead of 42' elevation when river is predicted to reach 45' and above.

Person should participate / facilitate meetings with towing companies to determine / agree on barge tie-up policy for every barge docking position 2 weeks before predicted river level of 42'. Advise all towing companies of assist boat policy beginning at 42' at these meetings.

Person should monitor barge tie-ups during transfers to gather information and make changes to recommendations accordingly.

- Deep water vessels (Ships and Ocean going barges)

Consider bringing in ex-ship Captain to assist in suggesting / monitoring ship tie up configuration.

Person should be on site and involved at least 1 week ahead of 42' elevation and when river is predicted to reach 45' and above.

Person should participate in communications with EMRE, RAA, Marine Superintendent and ship captains to help determine / agree on ship tie-up policy for every ship that calls on the dock at or above the 42' level.

Person should work closely with Marine Superintendent and agents to understand Dock details as they apply to berthing of tankers

- Parallel mid-body concerns
- Loading arm envelopes
- Up-down breast lines
- Height of hoist towers at different locations

#5 berth standby boat

Standby boat positioned at #5 berth to protect against possible break away barges or large debris coming from upriver

Boat should be negotiated with towing companies 2 weeks prior to predicted 45' river level (Seariver)

Boat should be minimum 1800 HP

Boat should have clear instructions as to their duties and responsibilities

Barge docking assist boat

Used to assist primary boat to bring barges flat against dock when berthing

Boat should be contracted with towing companies 2 weeks prior to predicted 42' river level (Seariver)

When not assisting, boat to remain tied off at the Dock wherever possible and monitor channel 16 to stay in communication with Dock office. Possible to station assist boat at staging fleet if dock has nowhere else to tie off.

Boat should be minimum 1800 HP

Docking and hold in tugs for Ships and Ocean going barges (see attachment #1)

High river ship tug requirements start at 39' (Dock Gauge)

Communicate high river tug requirements to all Agents and tug boat operators (Bisso, EN Bisso, Crescent, Moran) and pilot associations (NOBRA and Federal) 2 weeks prior to predicted 39'.

Need to adjust river stage indications in the attachment from Dock gauge to Baton Rouge gauge when communicating to outside agencies.

Use attachment to make decisions when to release tugs from holding in when ships at the dock are partially unloaded.

Loading arm operating envelope limits (see attachment #2)

Our loading arm operating limit is 89' minus Baton Rouge river level gauge.

Local CPQ and Fairfax should be notified that we may exceed our loading arm operating limits when discharging a large ship and therefore not be able to discharge entire cargo 2 weeks before river level is predicted to be 42'

Consider installing facilities at #1 and #2 berth loading arms that would enable hose connection to ship using the ship's crane so to facilitate discharging cargo that wouldn't be discharged before reaching loading arm operating limit.

Mooring diagram process

- 39'-42' river stage

Marine Superintendent to work with RAA to establish mooring diagram (see attachment #3 example)

Marine Superintendent to send mooring diagram to ship for approval/modifications and work with RAA to establish final diagram.

Marine Superintendent to provide operations with final mooring diagram and discuss with operations controller prior to ship docking.

- 42' and higher river stage

Marine Superintendent to acquire Q.88 of ship (see attachment #4 example).
Seariver can provide or access to Q.88 website is needed.

Marine Superintendent to acquire mooring arrangement from ship

Marine Superintendent, ex-ship captain and RAA to establish mooring diagram using Q88 and mooring arrangement materials

Marine Superintendent to mooring diagram to ship for approval/modifications and work with RAA, ex-captain and ship to establish final diagram.

Marine Superintendent to provide operations with final mooring diagram and discuss with operations controller prior to ship docking.

Pre-arrival messaged to Captains of ships

Additional communication other than regular pre-arrival information is needed when the river level rises above the fender system and minimal dock is exposed to ships as they approach the Dock for berthing..

Attachment #5 is an example of additional pre-arrival information sent to ships when fender system was completely under water.

Fender system on the inside of #1, #2 and #3 berths.

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Please forward this message on to the Captain,

Dear Captain,

We just wanted to keep you informed the conditions of water level and fenders at our dock so you you can plan your mooring lines / gangway accordingly.

1. Water level is approximately 3 ft below the main dock so please keep the vessel as low as, and safe, as possible.
2. In addition, water level is about .5 foot above top of wooden fenders so you won't be able to see fenders. Please don't be alarmed. They are there.
3. Be aware of high floodlight towers at dock. The towers are a couple feet away from dock's edge so please be sure vessel's starboard side is clear and all obstructions are well inside. Vessel should have to starboard list.
4. We are working on a recommended mooring layout. Will send it to you via email later today.
5. Need specifics of the ship
Any Q.88, OCIMF VIQ the ship can provide.
6. What will be the maximum distance from waterline to manifold during cargo/ballasting operations?
7. Be prepared to deploy either a gangway or ship's accommodation ladder to accommodate high river level.
8. We will require 4 tugs for docking, 3 tugs as hold in tugs during entire stay at dock, and 4 tugs to sail.

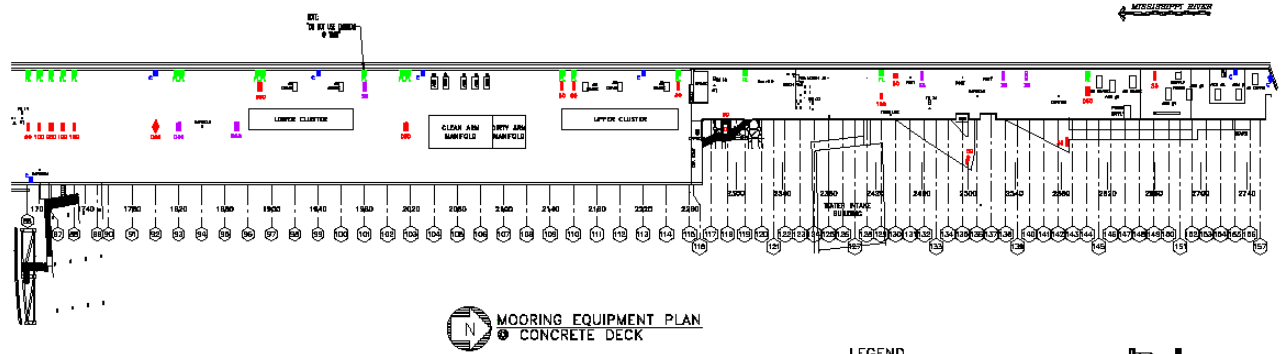
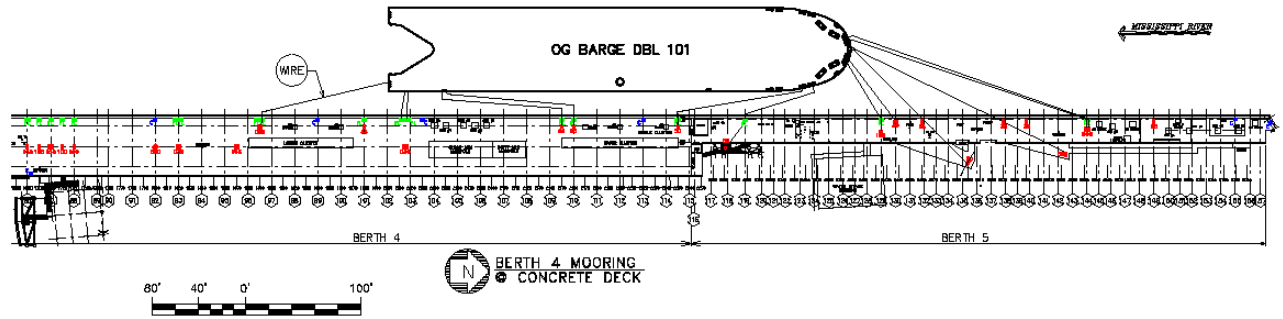
Note:

We may reduce the number of hold in tugs to 2.

9. Up and down/short breast leads should be avoided.
10. Will vessel require to retain ROB to meet air-draft requirements?

If so, how many barrels?
11. Will vessel require to retain ROB to meet facility loading arm envelope limits of about 44' from waterline to ship manifold?

If so, how many barrels?



- LEGEND**
- INDICATES MOORING HOOK & SIZE
 - INDICATES FAIRLEAD
 - INDICATES CLEAT



INTERTANKO'S STANDARD TANKER CHARTERING QUESTIONNAIRE 88 (Q88)

Version 3

1. VESSEL DESCRIPTION

1.1 Date updated:	Mar 24, 2011		
1.2 Vessel's name:	Maran Sagitta		
1.3 IMO number:	9414034		
1.4 Vessel's previous name(s) and date(s) of change:	Not Applicable		
1.5 Date delivered:	Sep 08, 2009		
1.6 Builder (where built):	HHI, S.KOREA		
1.7 Flag:	Greece		
1.8 Port of Registry:	PIRAEUS		
1.9 Call sign:	SVAQ6		
1.10 Vessel's satcom phone number:	Not Applicable		
Vessel's fax number:	Not Applicable		
Vessel's telex number:	Not Applicable		
Vessel's email address:	Not Applicable		
1.11 Type of vessel:	Oil Tanker		
1.12 Type of hull:	Double Hull		
Classification			
1.13 Classification society:	American Bureau of Shipping		
1.14 Class notation:	+A1(E), OIL CARRIER, ESP, CSR, SAFESHIP-CM, +AMS, +ACCU, VEC-L, RW, RES		
1.15 If Classification society changed, name of previous society:	NA		
1.16 If Classification society changed, date of change:	Not Applicable		
1.17 IMO type, if applicable:			
1.18 Does the vessel have ice class? If yes, state what level:	No ,		
1.19 Date / place of last dry-dock:	Not Applicable		
1.20 Date next dry dock due	Not Applicable		
1.21 Date of last special survey / next survey due :	Not Applicable	Not Applicable	
1.22 Date of last annual survey:	Not Applicable		
1.23 If ship has Condition Assessment Program (CAP), what is the latest overall rating:			
1.24 Does the vessel have a statement of compliance issued under the provisions of the Condition Assessment Scheme (CAS): If yes, what is the expiry date?	N/A		
Dimensions			
1.25 Length Over All (LOA):	244.11 m		
1.26 Length Between Perpendiculars (LBP):	234 m		
1.27 Extreme breadth (Beam):	42.04 m		
1.28 Moulded depth:	21 m		
1.29 Keel to Masthead (KTM) / KTM in collapsed condition (if applicable):	47.542 m	m	
1.30 Bow to Center Manifold (BCM) / Stern to Center Manifold (SCM):	123.63 m	120.48 m	
1.31 Distance bridge front to center of manifold:	79 m		
1.32 Parallel body distances:	Lightship	Normal Ballast	Summer Dwt
Forward to mid-point manifold:	50.21 m	60.07 m	60.3 m
Aft to mid-point manifold:	23.64 m	40.4 m	58.39 m
Parallel body length:	73.85 m	100.47 m	118.29 m
1.33 FWA at summer draft / TPC immersion at summer draft:	54131 mm		92.08 MT
1.34 What is the max height of mast above waterline (air draft)	Full Mast		Collapsed Mast
Lightship:	44.942 m		0.000 m
Normal ballast:	40.612 m		0.000 m
At loaded summer deadweight:	32.522 m		0.000 m
Tonnages			
1.35 Net Tonnage:			