

MV 19 TANDEM LIFTING LIMITS AND CONTINGENCY PLAN

NE MONSOON SEASON (AROUND OCT.1 - APRIL 15)				
Parameter	Approach & Berthing Limits		Limits During Offtake	
	Take Action If	Action to take	Take Action If	Action to take
Wind Speed	>25 knots	MM & Tanker Master to delay berthing, unless both agree safe to berth on joint evaluation of current & forecasted weather	>30 knt	Stop pumping & disconnect hose then unberth unless MM & Tanker Master both agree safe to continue on joint evaluation of current & forecast weather.
Hsig	>2.5 m		>3.0m	
Hmax	> 3.0 m		> 4.5m	
Visibility	<1,000 m		No visual contact	
Hawser Tension	NA	NA	>100T once	Stop pumping and MM & Tanker Master evaluate whether to disconnect
			>100T twice in 30 munites	Stop pumping & disconnect hose then unberth
			>120T once	Stop pumping & disconnect hose then unberth
Tanker Heading/ position	Outside safe berthing sector (FPSO heading+/- 45°) 359° - 089°	MM & Tanker Master to delay berthing	either 359° or 089°	Advise:1/ 2nd boat to push - pull intervention. 2/ FPSO is warned and to be ready for PPD injection and ready for stop of pumping
	Outside safe offtake sector (FPSO heading+/- 60°) 344° - 104°	No berthing is allowed	either 344° or 104°	If 2nd boat cant bring the tanker back into safe sector within 15 minutes: 1/ FPSO to start PPD injection if time allows.2/ Stop cargo transfer.3/ Disconnect hose then cast off the mooring hawser in controlled manner.

Note 1: Unberth when misalignment of tanker heading is more than 60° and/or tanker body cant be brought back to safer offtake sector 344° - 104° in NE monsoon and 164° - 284° in SW monsoon after intervention of 2nd boat for 15 min. Extended offtake sector for 10° may be accepted on non-WHP side

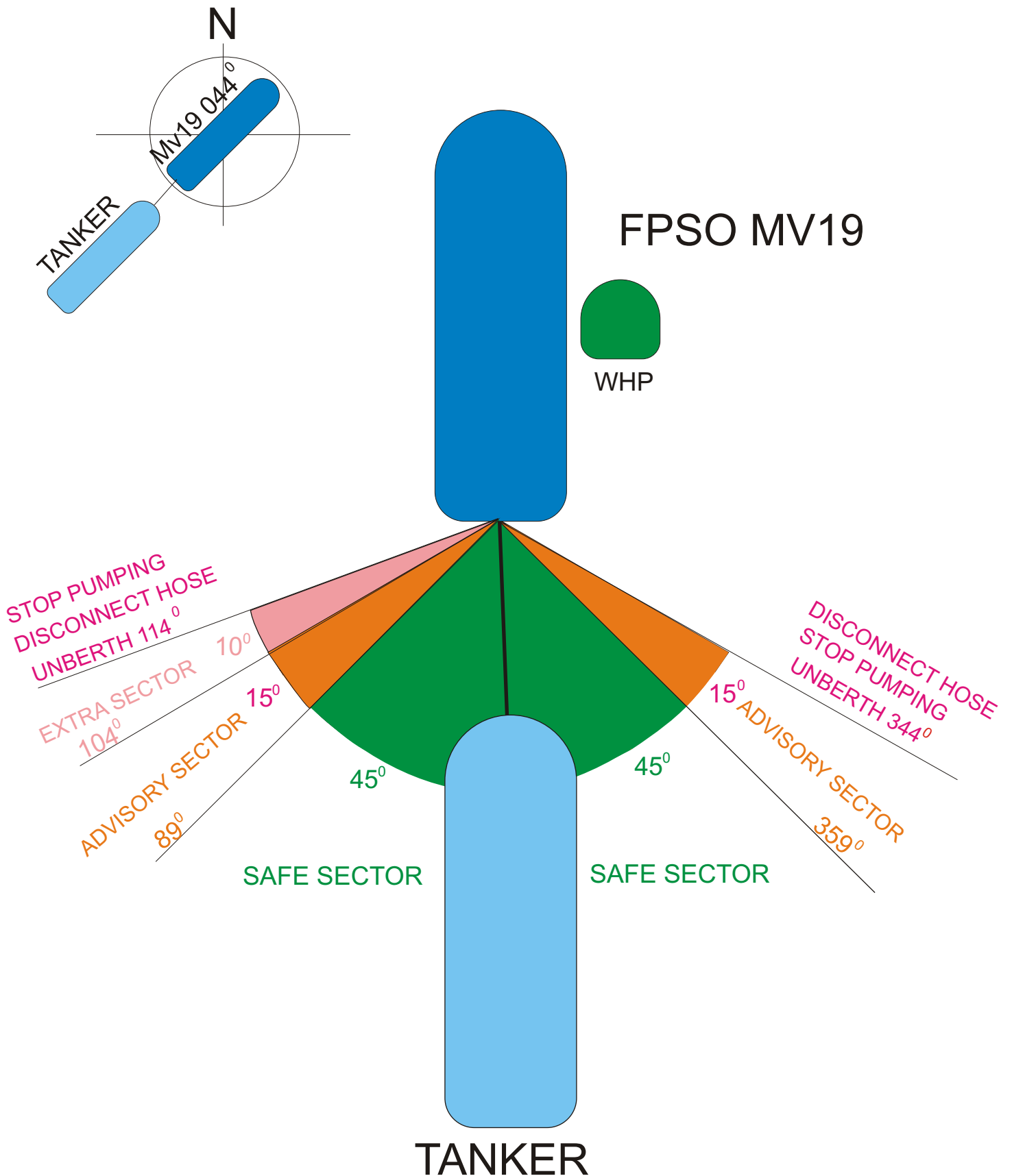
Note 2: 2nd boat must be secured to either side of the Export tanker at the mooring bollard located in front of accommodation block during offtake

Note 3: Decision to disconnect hose and/or disconnect mooring hawser shall be taken after joint evaluation of situation by Mooring Master, Tanker Master, MV19 Operations Supervisor and final decision to be taken by MV19 Facility Manager

Note 4: Squall response - Radars on tanker and support boats should be monitored on regular basis to timely detect approaching squalls. All parties to be advised of approaching squalls and be ready to take appropriate actions to respond to emergency situations

Safe sector limit

NE MONSOON SEASON(OCT. 1 - APRIL 15)



MV 19 TANDEM LIFTING LIMITS AND CONTINGENCY PLAN

SW MONSOON SEASON (AROUND APRIL 15 - OCT. 1)				
Parameter	Approach & Berthing Limits		Limits During Offtake	
	Take Action If	Action to take	Take Action If	Action to take
Wind Speed	>25 knots	MM & Tanker Master to delay berthing, unless both agree safe to berth on joint evaluation of current & forecasted weather	>30 knt	Stop pumping & disconnect hose then unberth unless MM & Tanker Master both agree safe to continue on joint evaluation of current & forecast weather
Hsig	>2.5 m		>3.0m	
Hmax	> 3.0 m		> 4.5m	
Visibility	<1,000 m		No visual contact	
Hawser Tension	NA	NA	>100T once	Stop pumping and MM & Tanker Master evaluate whether to disconnect
			>100T twice in 30 munites	Stop pumping & disconnect hose then unberth
			>120T once	Stop pumping & disconnect hose then unberth
Tanker Heading/ position	Outside safe berthing sector 179° - 269°	MM & Tanker Master to delay berthing	either 179° or 269°	Advise:1/ 2nd boat to push - pull intervention. 2/ FPSO is warned and to be ready for PPD injection and ready for stop of pumping
	Outside safe offtake sector 164° - 284°	No berthing is allowed	either 164° or 284°	If 2nd boat can't bring the tanker back into safe offtake sector within 15 minutes: 1/ FPSO to start PPD injection if time allows.2/ Stop cargo transfer.3/ Disconnect hose then cast off the mooring hawser in controled manner.

Note 1: Unberth when misalignment of tanker heading is more than 60° and/or tanker body cant be brought back to safer offtake sector 344° - 104° in NE monsoon and 164° - 284° in SW monsoon after intervention of 2nd boat for 15 min . Extended offtake sector for 10° may be accepted on non-WHP side

Note 2 : 2nd boat must be secured to either side of the Export tanker at the mooring bollard located in front of accommodation block during offtake

Note 3: Decision to disconnect hose and/or disconnect mooring hawser shall be taken after joint evaluation of situation by Mooring Master, Tanker Master, MV19 Operations Supervisor and final decision to be taken by MV19 Facility Manager

Note 4: Squall response - Radars on tanker and support boats should be monitored on regular basis to timely detect approaching squalls. All parties to be advised of approaching squalls and be ready to take appropriate actions to respond to emergency situations

Safe sector limit

SW MONSOON SEASON (APRIL 15 - OCT. 1)

