**Correspondence Group on Safe Mooring Operations**

**- Round 3 -**

**Consolidated comments**

**TORs 5 and 6**

**5 Draft separate guidelines on safe mooring operations (TOR .5)**

**5.1 Name and scope of the draft separate guidelines**

**UNITED STATES**

The United States understands that the scope of these new TOR 5 guidelines is still unresolved. As currently drafted, they are a mix of mooring operations (in section 3) and mooring line provisions (in section 4). This does not seem to be an appropriate mix: the TOR 5 guidelines should be limited either to operations or mooring lines. We have previously suggested limiting the scope of these TOR 5 guidelines to just mooring lines, but if the new TOR 2 guidelines are focused on equipment, then it may be appropriate to include mooring lines there & limit the scope of the TOR 5 guidelines to mooring operations.

**5.1.1 Referencing the separate guidelines in MSC.1/Circ.1371**

***The CG participants are invited to note the result of discussion.***

**5.1.2 Reference to onboard safety management system**

***The CG participants are invited to note the result of discussion.***

**5.1.3 Mixture of mooring operations and mooring line considerations**

***The CG participants are invited to note the result of discussion.***

**5.1.4 Need for the separate guidelines**

**5.2 Further development of draft separate guidelines**

***The CG participants are invited to cooperate for further development of the separate guidelines and note the assumptions for the work.***

**ITALY**

Italy would like to share the view expressed by OCIMF to continue discussions at next SDC WG regarding this item.

**Marshall Islands**

The Coordinators’ comments are noted and we look forward to participating in the development of the separate guidelines.

**ICHCA**

ICHCA strongly supports OCIMFs notes in this section on selection of mooring lines but would also like it be recognized in this section that there are alternative systems to the use of mooring lines, i.e magnetic and vacuum shore based mooring systems and also systems such as hydraulic dampers that help to eliminate risk of mooring line breakages.

**OCIMF**

We request to continue discussions at next SDC WG regarding this item.

**The selection of mooring lines should take into account:**

.1 the mooring restraint requirements as per IACS UR A2 or Industry Guidance;

.2 the diameter of mooring fittings with respect to the mooring line diameters (D/d ratio) in order to reduce the potential for bend loss of strength;

.3 the compatibility of the MBLSD of mooring lines and the brake capacity of the mooring winches installed on board;

.4 the characteristics and limitations of mooring lines including material properties and environmental operating conditions anticipated during normal operation of the ship;

.5 the anticipated behavior of the mooring line in the event of failure;

.6 the influence on stored energy and the potential for snap-back of low elasticity mooring lines caused by the use of tails;

.7 […]

**Inspection and replacement of mooring lines and mooring line tails**

.1 In order to prevent the deterioration of mooring lines to a condition which may result in the failure of the line during mooring operations, the periodic inspection of mooring lines, mooring line tails and associated attachments should be included in the on board maintenance plan or equivalent maintenance management system. The maintenance plan may be computer based.

.2 The requirements for inspection of individual mooring lines will be specific to the type of mooring line used on board. In general, on board inspection of mooring lines will be based on manufacturer recommendations and by visual inspection of the outside of the mooring line to identify excessive wear or damage. Such visual inspections should be based on:

.3 The recommendations of the mooring line and/or tail manufacturer, particularly the criteria provided for the assessment of mooring line condition;

.4 Operational experience regarding the performance of the mooring line and/or mooring line tail during previous mooring operations;

.5 The environmental conditions to which the mooring lines and/or mooring line tails are routinely exposed;

.6 Additional advice provided in industry guidance on mooring line and mooring line tail inspections; and

.7 In the case of jacketed synthetic fibre mooring lines, detailed visual inspection of the condition of the synthetic fibre line may not be possible. The condition of the external jacket is not an accurate indicator of the condition of the load bearing synthetic fibre material within the mooring line.

.8 The replacement of in service mooring lines which have been assessed as no longer suitable for use should be based on the removal prior to failure and in accordance with criteria provided by the manufacturer, taking into account additional advice provided in industry guidance on removal of mooring lines from service.

.9 Records of inspection of mooring lines and mooring line tails should be available on board. Consideration should be given to control and certification of mooring lines, wires, tails and associated attachments. Manufacturer's test certificates for mooring lines, joining shackles and synthetic tails should be kept onboard and properly linked back to the equipment.

**5.3 Cover page of the draft separate guidelines**

***The CG participants are invited to note the result of discussion.***

**ITALY**

Italy is of the view that further discussions at SDC is needed.

**OCIMF**

Noted and we await further discussions at SDC to amend title.

**5.4 Annex to the draft separate guidelines**

**IACS**

The “mooring manual” mentioned in several places in Annex 2 is not yet detailed in the draft separate guidelines on safe mooring operations. It should be described that there is to be a mooring manual and what it should contain, otherwise the mooring manual should be removed from the guidelines.

**5.4.1 Purpose**

***The CG participants are invited to make comments on the aforementioned text for purpose.***

**Australia**

1.1 - support text inside square brackets

**ITALY**

Italy supports the text proposed by OCIMF.

**Marshall Islands**

We support the text provided by the Coordinator (second alternative) based on comments provided during Round 2 and recommend that the square brackets be removed.

**UNITED STATES**

1.1 - We support including “tails” as part of mooring line discussions throughout the Guidelines.

The square-bracketed clause (“mooring operations safely…”) should be deleted if the scope is limited to mooring lines alone.

**ICS**

ICS can support the proposed text. As to the square bracketed text, this would be dependent on the outcome of any discussion to clarify the scope, and should only be included if the Guidelines actually contain substantive and effective guidance to promote sage mooring operations, in addition to addressing the mooring line maintenance.

**ICHCA**

ICHCA supports the proposed text but would change the words “shipboard personnel” to “mooring personnel”.

**OCIMF**

OCIMF supports the following text and the removal of square brackets:

“The purpose of these Guidelines is to provide recommendations and guidance for shipboard personnel to conduct [mooring operations safely including] in-service inspections of mooring lines and tails, criteria for identifying worn-out lines and tails for removal from service before failure, and criteria for selection of replacement mooring lines and tails.”

Removing mooring line from service before failure will result in the safest outcome.

**INTERTANKO**

Depends on the outcome of the scope discussion at SDC.

**SIGTTO**

We support the second option, with deletion of square brackets:

“The purpose of these Guidelines is to provide recommendations and guidance for shipboard personnel to conduct [mooring operations safely including] in-service inspections of mooring lines and tails, criteria for identifying worn-out lines and tails for removal from service before failure, and criteria for selection of replacement mooring lines and tails.”

**5.4.2 Application**

***The CG participants are invited to make comments on the aforementioned text for application.***

**Australia**

1.2 – Agree

**ITALY**

Italy supports the text provided by the coordinator:

“These Guidelines apply to all ships. Certain provisions are intended for reference by shipboard personnel, and other provisions are intended for shore-side personnel responsible for selecting and procuring replacement mooring lines.”

**Marshall Islands**

We agree with the text provided by the Coordinator.

**ICS**

ICS does not have any objections to the intent of the proposed text.

**ICHCA**

ICHCA supports the text.

**OCIMF**

OCIMF supports the text provided by the coordinator:

“These Guidelines apply to all ships. Certain provisions are intended for reference by shipboard personnel, and other provisions are intended for shoreside personnel responsible for selecting and procuring replacement mooring lines.”

**INTERTANKO**

INTERTANKO supports the proposed text. Since there are reference to both shipboard personnel, and for shoreside personnel, we propose amending the text as follows:

“These Guidelines apply to all ships [and all ports and terminals]. Certain provisions are intended for reference by shipboard personnel, and other provisions are intended for shore side personnel responsible for selecting and procuring replacement mooring lines and equipment.”

**SIGTTO**

We support the proposed text.

**5.4.3 Terms and definitions**

***The CG participants are invited to make comments on the aforementioned text for terms and conditions, taking into account that the draft will be reviewed.***

**Australia**

1.3 – agree to all definitions

**ITALY**

Italy has no concerns with the terms and definitions proposed.

**Japan**

Japan proposes to review the section 1.3 after the consideration on the section 2 of the Guidelines on ToR 2.

**Marshall Islands**

We do not have any comments at this point regarding the terms and definitions. It is suggested that detailed discussion of this section be postponed until the text of the Guidelines is almost finalized.

**Norway**

Definitions in these guidelines should be in line with the definitions in the ‘design-guidelines’

**United Kingdom**

The definitions should be amended for consistency with Annex 2.

**UNITED STATES**

The term *“Rotation of mooring lines”* is defined, but not (yet) used.

A new definition should be added:

*“Mooring line configuration”* means all components of an individual mooring line, including tails, eye splices, etc. Any change or replacement of a component is a change to the line’s configuration.”

(The reason for adding this definition is that the ZARGA investigation determined that the failed mooring line had an in-service history of 3 configurations: as originally furnished, addition of 11m tails, and then replacement with 22m tails)

**ICS**

Further consideration of any definition text should be deferred until the Guidelines are approaching finalization, as proposed by the US and others in Round 2.

**IACS**

The definition of “Mooring personnel” does not include the ship crew which is not in line with the definition in the guidelines for mooring arrangement. The definitions should be aligned and subsequent text should address involved parties accordingly.

In the definition of “Rotation of mooring lines”, “periodical change of mooring drums” is not understood.

**ICHCA**

Definitions and terms are acceptable to ICHCA.

**OCIMF**

OCIMF has no concerns with the terms and definitions proposed.

**INTERTANKO**

INTERTANKO agree with the coordinators suggestion and agree with coordinators remark on that definitions from OCIMF on definitions from MEG4 should be included. As an example in the proposed 2.1 several definitions are used and should be explained here.

**5.4.4 Selection of mooring lines**

**(1) Sub-Section 2.1**

***The CG participants are invited to note the results of discussion on sub-section 2.1.***

**INTERTANKO**

Noted and accepted.

**(2) Sub-Section 2.2**

***The CG participants are invited to make comments on the aforementioned text for sub-section 2.2.***

**Australia**

Suggest reordering of the provision to put what should be done at the front and why at the back. Modified text below:

*2.2 - Ship operators should track the condition of mooring lines through their service so that a line is retired before it fails. It should be noted that when selecting mooring lines that over time in service their strength will decay due to varying environmental conditions.*

**ITALY**

Italy supports the text added by the coordinator with some modification proposed by OCIMF.

**Marshall Islands**

In principle we support the text proposed by the Coordinator and the suggested amendment offered by OCIMF during this round. Since this section is addressing the selection of mooring lines rather than their maintenance, the second sentence of the proposed text may not be necessary.

**ICS**

ICS supports the principle of the text proposed by OCIMF.

**ICHCA**

ICHCA supports the text.

**OCIMF**

OCIMF supports the text added by the coordinator, with a minor clarification in **bold and underlined.**

“It should be noted that when selecting mooring lines, that over time in service, their strength will decay due to varying environmental conditions **and original service life expectations may not be obtained**. **Therefore,** ship operators should track the condition of mooring lines through their service with the desire to retire the line before failure.”

**INTERTANKO**

Accepted

**SIGTTO**

We support the proposed text.

**(3) Sub-Section 2.3**

***The CG participants are invited to make comments on the aforementioned text for sub-section 2.3.***

**ITALY**

Italy supports the amended text:

“For wire ropes, corrosion protection should be considered.”

Furthermore the comment made by OCIMF should be taking into account.

**Marshall Islands**

We agree in principle with the text proposed by the Coordinator. However, since this section addresses mooring line selection it is suggested that it be reworded to read: “For wire ropes, providing an appropriate means of corrosion protection should be considered.”

We well note OCIMF’s comments regarding the concern that many ship managers have regarding the use of oil and grease on wire ropes used for mooring.

**ICS**

ICS agrees with the text as drafted.

**ICHCA**

ICHCA supports the text.

**OCIMF**

OCIMF supports the amended text:

“For wire ropes, corrosion protection should be considered.”

Please also note that OCIMF members have concerns and sensitivity around the use oil and greases on wire rope moorings. Any grease or oil can create a sheen when in contact with water.

**INTERTANKO**

Accepted

**SIGTTO**

We support the proposed text.

**(4) Sub-Section 2.4**

***The CG participants are invited to make comments on the aforementioned text for sub-sections 2.4 and 2.5.***

**Australia**

Agree

**ITALY**

Italy supports the text provided by the coordinators.

**Marshall Islands**

We agree with the text proposed by the Coordinator for paragraphs 2.4 and 2.5. The points made are critical.

**ICS**

ICS agrees with the text as drafted. This is essential text, taking into account the findings of the UK MAIB report into the mooring incident onboard the ZARGA.

**ICHCA**

ICHCA supports the text.

**OCIMF**

OCIMF supports the text provided by the coordinators.

**INTERTANKO**

Accepted

**SIGTTO**

We support the proposed text.

**(5) Sub-Section 2.6 (previous 2.5)**

***The CG participants are invited to make comments on the aforementioned text for sub-sections 2.6 and 2.7.***

**Australia**

Agree

**ITALY**

Italy supports the text in 2.6.

**Marshall Islands**

We agree with the proposed text for paragraphs 2.6 and 2.7.

**UNITED STATES**

A new sub-section 2.8 should be added, as follows:

“2.8 In-service modifications of a mooring line, such as the addition of tails, may significantly change its elastic characteristics. Any reconfiguration of a mooring line, therefore, should trigger a full safety review of the mooring plan, especially snap-back zones. Updated information should be posted for mooring personnel.”

**ICS**

ICS agrees with the text as drafted. This is essential text, taking into account the findings of the UK MAIB report into the mooring incident onboard the ZARGA.

**IACS**

The modification of 2.6. related to the use of tails for mooring lines with low elasticity is appreciated.

**ICHCA**

ICHCA supports the text.

**OCIMF**

OCIMF supports the text in 2.6 and 2.7 as the main points are taken.

**INTERTANKO**

Accepted

**SIGTTO**

We support the proposed text.

**5.4.5 Basic requirements for safe use of mooring equipment**

***The CG participants are invited to note that section 3 may be deleted or fully rewritten depending on the result of discussion on the scope of the guidelines. See paragraphs 5.1 and 5.2 of this document.***

***The CG participants are invited to cooperate for further development of this section, pending the decision on the scope of the guidelines.***

**(1) Sub-Section 3.1**

***The CG participants are invited to note the draft text in sub-section 3.1 set out in Annex 4 to this document.***

**ICS**

Whilst noting the text, as instructed by the coordinator, ICS notes that this text confuses mooring operations (the process of mooring) with the maintenance of mooring lines. The guidelines should attempt to keep these two matters separate. Maintenance of mooring lines is essential and is a pre-requisite of safe mooring but it should be dealt with separately.

ICS would therefore propose that paragraph 3.1 is amended to reflect section 7 of the ISM Code:

“Companies should establish procedures, plans and instructions, including checklists as appropriate, for mooring operations. Duties and responsibilities during mooring operations should be defined and only assigned to qualified personnel.”

**INTERTANKO**

Accepted

**(2) Sub-Section 3.2**

***The CG participants are invited to note the aforementioned draft text in sub-section 3.2.***

***The CG participants are invited to make comments on the inclusion of the aforementioned text into sub-section 3.2.***

**Australia**

Agree.

**ITALY**

Italy supports the text of the 3.2 related to familiarization as it is proposed.

**Marshall Islands**

We agree in principle with the intent of proposed text addressing familiarization while also noting ICS’ comments regarding the mandatory requirements in STCW and the ISM Code for seafarer familiarization. We agree to retain it at this stage in the development of the Guidelines.

We do not object at this stage to including the text proposed by Japan while noting that elements of this text may be addressed elsewhere in the Guidelines.

**ICS**

Whilst not objecting to the principle of the text in this round, it should be recalled that there is a mandatory requirement for familiarization in STCW and the ISM Code. Because there is a mandatory requirement for familiarization, the Guidelines should not recommend familiarization and should be developed on the assumption that personnel will have been familiarized because they are required to be familiarized by other IMO instruments.

In addition, noting the comment under paragraph 3.1, ICS proposes that this matter is covered by paragraph 3.1 and, in more detail, in the proposed further development of paragraph 3.4.

**IACS**

Additional text proposed by Japan is basically agreed to but all the information should not be located on the mooring arrangement plan as required by MSC.1/Circ.1175. The mooring arrangement plan should mainly inform on the arrangement, purpose and load limits of fittings and winches. To also add relevant mooring procedures, potential snap-back risk areas as well as information on maintenance and inspection of the mooring equipment, including mooring lines would overload the plan. It is proposed to ask for provision of a mooring manual that includes all relevant information a part of which the mooring arrangement plan would be.

**ICHCA**

ICHCA supports the inclusion of the text proposed by Japan.

**INTERTANKO**

Accepted

**(3) Sub-Section 3.3**

***(i) The CG participants are invited to make comments on the aforementioned text for sub-section 3.3.***

**Australia**

The first sentence in the chapeaux has no relevance to the second sentence and should be separated as a stand-alone provision.

**Marshall Islands**

Agree with the proposed text.

**ICS**

No objection.

**IACS**

Sub-section 3.3 overlaps with sub-section 3.4.

**ICHCA**

ICHCA supports the inclusion.

**INTERTANKO**

For clarification consider the following amendment:

Shore-side mooring personnel should comply with the requirements in FAL.6/Circ.11/Rev.1 “Ship/Port Interface, Guidelines on minimum training and education for mooring personnel”. Prior to commencement of mooring operations, all [Shore-side] mooring personnel should understand…

***(ii) The CG participants are invited to make comments on the inclusion of the aforementioned text into sub-section 3.3.***

**Australia**

The second sentence should be the chapeaux of a new provision followed by the texts in .1 and .2 as laid out.

**Marshall Islands**

The proposed text appears to address the mooring deck design rather than mooring operations. We are not sure that this text is appropriate for the Guidelines on mooring operations and maintenance.

**ICS**

If this text is included then “port, port facility and terminal operators” will need to be included in the intended audience for the guidelines in the appropriate paragraph of the covering MSC circular.

**BIMCO**

BIMCO believes that the text mentioned in 3.3. can be misunderstood and suggest using:

“The ship should be provided with appropriate information about the mooring arrangement, equipment and its intended use, as it applies to the specific installation”.

**IACS**

The provision proposed to be added by Japan saying that “*the ship is provided with appropriate information about the mooring arrangement, equipment and its intended use.*” seems to be already covered by the mooring arrangement plan as required by MSC.1/Circ.1175. Thus, the inclusion is disagreed.

**ICHCA**

ICHCA supports the inclusion.

**INTERTANKO**

Since this belongs to what the shore side should do, we propose the following:

“The ship is provided with appropriate information including maximum workloads, limits and condition for the port/terminals mooring arrangement including, bollards, fenders and other equipment intended for the safe mooring of the ship. Such information should be provided in good time before arrival allowing the ship to do a proper mooring plan.”

**(4) Sub-Section 3.4**

***(i) The CG participants are invited to make comments on the draft text in sub-section 3.4 set out in Annex 4 to this document.***

**Australia**

Agree

**ITALY**

Italy agrees with the text proposed by ICS and further discussions may continue at SDC WG.

**Marshall Islands**

This section is of critical importance and we agree in principle with the text proposed by ICS. We also support the UK’s comment regarding the need to address in this sub-section the use of tugs when planning the mooring operation and the caution regarding the use of weighted monkey-fists.

**United Kingdom**

Add the words “including appropriate use of tugs” at the end of paragraph 3.4.1.

*Comment: The report of the UK Marine Accident Investigation Branch into the failure of a mooring line on the LNG Carrier ZARGA concluded that attempting “to reposition the vessel using the spring lines, rather than recalling the tugs, placed the mooring parties in an unnecessarily hazardous position”. Appropriate use of tugs would avoid mooring lines being used inappropriately.*

Replace the text in ragraph 3.4.5.4 with “On no account should additional weights, other than the monkey’s fist or a safe alternative, be attached to the heaving line”.

*Comment: This has become a serious problem in some ports in the UK. The UK Maritime and Coastguard Agency published a safety alert in 2014, and the Code of Safe Working Practices for Merchant Seafarers includes the following:*

*26.3.5 To prevent personal injury to those receiving heaving lines, the ‘monkey’s fist’ should be made with rope only and must not contain added weighting material. Safe alternatives include a small high visibility soft pouch, filled with fast draining pea shingle or similar, with a weight of not more than 0.5 kg. Under no circumstances is a line to be weighted by items such as shackles, bolts or nuts, or twist locks.*

The UK proposes that this additional guidance or something similar could be added to the separate Guidelines.

**ICS**

Whilst the content of this section may be changed, depending on the scope of the draft Guidelines, if mooring operations are to be included, then this is an important section. Consequently, it does need further development to ensure that it comprehensively addresses preparations for mooring arrangements. In order to conditbute to such further development, ICS proposes the following in preparation for further discussion at SDC 5:

“3.4 Prior to the commencement of a mooring operation:

.1 The mooring operation should be planned based on company specific procedures for planning and conducting mooring operations, taking into account:

.1 The anticipated wind and tidal conditions at the berth, and the proximity of adjacent ships and/or structures;

.2 The number and position of mooring lines required, including the results of any mooring analysis undertaken;

.3 The availability of the required number of mooring lines in a condition which means that they are fit for their intended use;

.4 The availability and use of tugs, mooring boats and linesmen;

.5 Any hazards particular to the mooring operation and the actions required to minimize the risks associated with such hazards; and

.6 […]

.2 Shipboard personnel involved in the mooring operation should attend a pre-arrival safety meeting. The meeting should address, but not be limited to, the following matters:

.1 the roles and responsibilities of all the personnel involved in the mooring operation. These should be clearly defined and understood by all personnel involved;

.2 the timings for the mooring operations, in particular the time by which all preparations for mooring should be complete;

.3 the anticipated mooring line arrangement at the berth, with particular reference to any additional lines to be used;

.4 the sequences of events during the mooring operation, including the order in which lines are anticipated to be passed;

.5 the anticipated use of tugs and mooring boats and the hazards and precautions associated with their use;

.6 hazards, including snap-back, line handling and hazards specific to the particular mooring operation;

.7 safety precautions, including the wearing of appropriate personal protective equipment (PPE), which should observed on the mooring deck at all times throughout the operation;

.8 the action to be taken in the event of a dangerous situation developing and the verbal and/or hand signals to be used to indicate such danger to all other personnel;

.9 agreed means of communication between the navigation bridge, the mooring decks, shipboard personnel and mooring personnel ashore; and

.10 […]

.3 All personnel involved in the mooring operation should be provided with appropriate PPE for their role during the operation. Such equipment should be worn throughout the mooring operation, and when tending or monitoring lines at the berth;

.4 All mooring equipment, fittings and mooring lines required for the mooring operation should be checked to confirm that it is ready for immediate use during mooring. This should include, but is not limited to, checking that winches controls, winch drum brakes, roller fairleads and communications equipment operate correctly;

.5 Mooring lines, including tails, if used, should be checked and laid out ready for use. Mooring lines on drums should be checked to confirm that the line is not trapped on the drum;

.6 Mooring decks should be cleared on unnecessary equipment, mooring lines and any other sources of clutter or tripping hazards;

.7 Heaving lines should be prepared. No extra weight, other than a monkey-fist, should be attached to the throwing end of a heaving line; and

.8 Any preparations required by the port or terminal should be complied with, unless to do so would compromise the safety of personnel involved in the mooring operation. In such cases, the Master should inform the port or terminal of such concerns; and

.9 […]”

**ICHCA**

ICHCA supports the text but if it is agreed by the group that alternative mooring systems are to be included then they should also be referenced here.

**OCIMF**

OCIMF agrees in principle with the text proposed by ICS and further discussions may continue at SDC WG. The text provided by ICS is more robust and reflective of what should be covered within mooring planning.

**INTERTANKO**

Noted and agree in general

ICS suggestion here in round 3 is supported. If ICS proposal is not generally supported, INTERTANKO propose the below alternative as a start for rewriting this section:

The following are suggestions for enhancement of the coordinators proposal:

3.4.1 Propose a rewording and the deletion of 3.4.4 & 3.4.4.1. In square brackets is the coordinators proposal for 3.6, but added here instead.

.1 The mooring operation should be adequately planned and a mooring plan including a mooring layout should be produced for the specific berth taking into account;

.1.1 information received about the specific berth as laid out in 3.3 above. (refer to the INTERTANKO proposal above for 3.3)

.1.2 the ships mooring arrangement and equipment

.1.3 [Breast lines provide the maximum transverse restraint and spring lines the maximum longitudinal restraint against vessel movement in athwart and in fore-aft direction, respectively. Head and stern lines are much less effective for these purposes. The applied mooring layout should follow these principles, as far as possible with respect to the port facilities and as far as reasonable with respect to the vertical line angles]

.1.4 the condition of mooring lines and mooring equipment onboard

.1.5 the metrological and hydrographical condition at the berth

.1.6 any other information relevant to the safe mooring of the ship

3.4.4 Suggest to delete and this to amend 3.4.1 as laid out here above

3.4.5 Suggest the following change since there may be other mooring areas than fore and aft.

“The condition of the following items should be verified on all mooring areas on board:”

**(5) Sub-Section 3.5**

***The CG participants are invited to note the results of discussion.***

**ITALY**

Italy agrees with the text provided by the coordinators and with comment made by OCIMF with view that MEG should be referenced throughout the guidelines.

**Marshall Islands**

We would support removing the square brackets around 3.6.

**IACS**

IACS propoes the following editorial modification of the sentence in 3.5.1:

“English to be used if a no other common language ~~does not~~ exists among all parties.”

The inclusion of 3.6

“*Breast lines provide the maximum transverse restraint and spring lines the maximum longitudinal restraint against vessel movement in athwart and in fore-aft direction, respectively. Head and stern lines are much less effective for these purposes. The applied mooring layout should follow these principles, as far as possible with respect to the port facilities and as far as reasonable with respect to the vertical line angles.*”

is in general agreed to but may be better located in the beginning of Section 3.

**OCIMF**

OCIMF agrees with the text provided by the coordinators and is okay with the text in 3.6 and square brackets should be removed. OCIMF continues to support the view that MEG should be referenced throughout the guidelines.

**INTERTANKO**

Agree in principal to the text for 3.5 and 3.6 by the coordinators.

ICS suggestion here in round 3 is supported, see above. If ICS proposal is not generally supported, INTERTANKO propose the below alternative as a start for rewriting this section:

A few comments on the text:

3.5.2 Mooring personnel (shore or sea)

We assume that it’s the bridge/master that can communicate the direction and speed of the main engine to the ship mooring personnel and they in turn can communicate this to the shore mooring personnel.

And potentially the master is keen to know about the direction of tugs line and so on.

With this in mind, we propose the following altered text for 3.5.2:

3.5.2 All involved persons in the mooring operation should regularly communicate the current state of mooring lines or tug lines, the direction and speed of the main engine and other relevant information to each other.

3.5.3 Refer to 3.4.2.1, if we already have ensured this there, is this point needed?

Consider adding 3.6 to the 3.4 section that is about planning. This could possibly be amended to the new proposed 3.4.1 by INTERTANKO (added in square brackets there)

**(6) Possible additional requirement in section 3**

***The CG participants are invited to make comments on the inclusion of the above mentioned text in section 3.***

**Australia**

Agree

**Japan**

Japan especially supports paragraph 3.4.3 as Japan believes that adequate communication is very important for safe mooring operations.

**Marshall Islands**

We agree with the proposed text.

**ICS**

No objection to inclusion of the text.

**IACS**

The inclusion of

“*Mooring lines should as far as possible be arranged so that lines in the same service are about the same length between the ship and the shore bollard.*”

matches best to the proposed inclusion of 3.6.

**ICHCA**

This is an ideal but not always possible – needs further discussion.

**OCIMF**

OCIMF agrees with the draft text provided:

“Mooring lines should as far as possible be arranged so that lines in the same service are about the same length between the ship and the shore bollard.”

**INTERTANKO**

Agree

**5.4.6 Inspection and maintenance of mooring lines**

***The CG participants are invited to note that section 4 may be fully rewritten depending on the result of discussion on the scope of the guidelines. See paragraphs 5.1 and 5.2 of this document.***

***The CG participants are invited to cooperate for further development of this section, pending the decision on the scope of the guidelines.***

***The CG participants are invited to make comments on the aforementioned text in section 4.***

**Australia**

Agree

**ITALY**

Italy supports the draft text as indicated by coordinators.

**Japan**

Japan supports the ICS proposal.

**Marshall Islands**

We support the text developed by the Coordinator. Noting BIMCO’s comments we also support amending Sub-section 4.4. The following is suggested for consideration:

**.4 Recordkeeping**

.1 Each mooring line should be individually identifiable by markings or other means; and

.2 Results of inspection and maintenance, including rotation and replacement, of mooring lines should be recorded and kept onboard for the period determined by the Company.

**ICS**

ICS notes that Appendix 1 of the coordinator’s remarks which refers to the comprehensive text proposal made by ICS and OCIMF includes relevant guidance in inspection and maintenance. It may be beneficial to include that text in these Guidelines:

**“Inspection and replacement of mooring lines and mooring line tails**

X.1 In order to prevent the deterioration of mooring lines to a condition which may result in the failure of the line during mooring operations, the periodic inspection of mooring lines, mooring line tails and associated attachments should be included in the on board maintenance plan or equivalent maintenance management system. The maintenance plan may be computer based.

X.2 The requirements for inspection of individual mooring lines will be specific to the type of mooring line used on board. In general, on board inspection of mooring lines will be based on manufacturer recommendations and by visual inspection of the outside of the mooring line to identify excessive wear or damage. Such visual inspections should be based on:

.1 The recommendations of the mooring line and/or tail manufacturer, particularly the criteria provided for the assessment of mooring line condition;

.2 Operational experience regarding the performance of the mooring line and/or mooring line tail during previous mooring operations;

.3 The environmental conditions to which the mooring lines and/or mooring line tails are routinely exposed;

.4 Additional advice provided in industry guidance on mooring line and mooring line tail inspections; and

.5 […].

X.3 In the case of jacketed synthetic fibre mooring lines, detailed visual inspection of the condition of the synthetic fibre line may not be possible. The condition of the external jacket is not an accurate indicator of the condition of the load bearing synthetic fibre material within the mooring line.

X.4 The replacement of in service mooring lines which have been assessed as no longer suitable for use should be based on the removal prior to failure and in accordance with criteria provided by the manufacturer, taking into account additional advice provided in industry guidance on removal of mooring lines from service.

X.5 Records of inspection of mooring lines and mooring line tails should be available on board. Consideration should be given to control and certification of mooring lines, wires, tails and associated attachments. Manufacturer's test certificates for mooring lines, joining shackles and synthetic tails should be kept onboard and properly linked back to the equipment.”

**BIMCO**

The following is about 4.4 Recordkeeping:
There must be clear identifying marks on each rope. Eg. by a sleeve at each eye splice that encapsulated a number (usually the company’s order number), which was then also included on the certificate. Alternatively, a colour scheme or electronic chip may be possible to use.

We therefore suggest including that: Each rope should be individually identifiable by markings or the like.

Would it be in order to include some mention of what should be blindingly obvious (but is usually missed completely), that each rope should be individually identifiable by markings on the rope itself?

**IACS**

In 4.1.3 problems with inspection of jacketed synthetic fibre mooring lines are mentioned but no possible alternative to the visual inspection are given.

* With regard to 4.1.1, storage condition (if lines were kept on board) may also require attention.
* With regard to the last sentence in 4.1.3, solution options should be given for this.

**ICHCA**

The ICS based text is acceptable to ICHCA.

**OCIMF**

OCIMF supports the draft text generated by the coordinators summing up the discussions.

**INTERTANKO**

Agree. To ensure a future proof text, suggest changing 4.3 reference OCIMF MEG4 to OCIMF Mooring Equipment Guidelines, latest version.

**5.4.7 Reference**

***The CG participants are invited to note that MEG 3 will be replaced with MEG 4, as appropriate.***

**ITALY**

Italy agrees.

**OCIMF**

Noted and agreed.

**5.4.8 Inclusion of some requirements in the draft new guidelines (Annex 2)**

***The CG participants are invited to note the results of discussion on the inclusion of the aforementioned texts.***

**OCIMF**

Noted and agreed, suggest the removal of square brackets.

**5.5 Others**

***The CG participants are invited to note the aforementioned comment and the relevant action by the coordinator.***

**6 Consequential amendments to relevant IMO instruments (TOR .6)**

**6.1 Resolution A.1104(29)**

***The CG participants are invited to make comments on the aforementioned draft amendment.***

**Australia**

Agree

**Finland**

We agree with the proposals and note that the word “restrictions(s)” is used here, and needs to be considered in conjunction with the outcome of the discussion regarding “restriction/limitation in the SOLAS drafts point 4.

**ITALY**

Italy supports the draft text as proposed by coordinators.

**Marshall Islands**

We agree with the proposed amendment.

**ICS**

Consideration of examination of certificates should be deferred to SDC 5.

**BIMCO**

Noting our comment above we suggest to include marking of mooring lines with identifying marks linking them to the certificate that apply

**ICHCA**

The amendment is acceptable to ICHCA.

**OCIMF**

Noted and OCIMF supports the draft text.

**6.2 FAL.2/Circ.127-MEPC.1/Circ.817-MSC.1/Circ.1462**

***The CG participants are invited to note the result of the discussion.***

**ITALY**

Italy noted the discussion and result of the issue.

**6.3 MSC.1/Circ.1371**

***The CG participants are invited to endorse the action proposal by the coordinator.***

**Australia**

Agree

**Finland**

We agree with the proposal of the coordinators.

**ITALY**

Italy supports the draft text.

**Marshall Islands**

We agree with the proposed action.

**Republic of Korea**

Republic of Korea support the action proposal proposed by the Coordinators.

**ICHCA**

ICHCA endorses the proposed action.

**OCIMF**

Noted and OCIMF supports the draft text.

**7 Others**

***The CG participants are invited to make comments on the proposal for the establishment of a WG at SDC 5.***

**Australia**

Agree

**Finland**

The WG is supported and necessary to finalize this work in time.

**ITALY**

Italy supports the need for a WG at SDC5.

**Japan**

Japan supports the coordinator’s proposal to establish a working group

**Marshall Islands**

We support establishing a WG at SDC 5 as proposed by the Coordinators.

**Republic of Korea**

Republic of KOREA support establishing the working group at SDC 5 as proposed by the Coordinators.

**ICS**

ICS could support the establishment of a WG at SDC 5.

**IACS**

The set-up of a working group at SDC5 is supported.

**ICHCA**

ICHCA believes that a WG at SDC 5 is essential and should be commenced at the earliest opportunity as there is still a lot of work to do.

**OCIMF**

Noted and OCIMF supports the need for a WG at SDC5.

**INTERTANKO**

Supported

**SIGTTO**

We support the need for a WG at SDC5.

**Nautical Institute**

Agree with co-ordinator and others to support establishment of WG at SDC 5