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RECYCLING OF SHIPS

Comments on the draft Guidelines for Safe and Environmentally Sound Ship Recycling – Safe for hot work procedures

Submitted by Oil Companies International Marine Forum (OCIMF)

SUMMARY

Executive summary:	This document comments on the safe for hot work procedures contained in the draft guidelines for safe and environmentally sound ship recycling, as presented in the report of the correspondence group (MEPC 61/3)
Strategic direction:	7.1
High-level action:	7.1.2
Planned output:	7.1.2.1
Action to be taken:	Paragraph 4
Related document:	MEPC 61/3

Introduction

1 This submission provides additional specific comments on the report of the intersessional correspondence group on ship recycling guidelines, document MEPC 61/3.

Proposal

2 The work of the correspondence group on ship recycling guidelines as presented in document MEPC 61/3 represents continued progress on this issue and we would like to suggest specific additions to the text contained within section 3.3.3.2, Safe for hot work procedures. The proposed additional text is complementary and adds necessary guidance which will ultimately be beneficial to the worker safety in ship recycling facilities.

3 The proposed additional text for annex 2 to document MEPC 61/3, section 3.3.3.2, is shown in the annex to this document. To make the proposed changes evident, they have been presented in a track change format.

Action requested of the Committee

4 The Committee is invited to consider the information contained within this proposal and to take action as appropriate.

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ANNEX

PROPOSED SPECIFIC ADDITIONS TO THE TEXT CONTAINED WITHIN SECTION 3.3.3.2, SAFE FOR HOT WORK PROCEDURES

3.3.3.2 Safe for Hot Work procedures

The Ship Recycling Facility should ensure that no hot work commences on a ship until Safe for Hot Work Certification has been issued by a competent person. A competent person should visually inspect and test each space on the ship to determine the areas which are safe for hot work prior to issuance of a Certificate and commencing recycling activities.

Hot Work is defined as: Work involving sources of ignition or temperatures sufficiently high to cause the ignition of a flammable gas mixture. This includes any work requiring the use of welding, burning or soldering equipment, blow torches, some power driven tools, portable electrical equipment which is not intrinsically safe or contained within an approved explosion-proof housing, and internal combustion engines.

Safe For Hot Work criteria

Safe for Hot Work denotes a space that meets all of the criteria for safe for entry and also the following criteria:

- The oxygen content of the atmosphere is 21% by volume~~neither deficient (below 19.5% oxygen) nor enriched (22.0% oxygen or above)~~;
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- The concentration of flammable vapours is below ~~10~~ 1 per cent of the Lower ~~Explosive~~ Flammable Limit;
- Any residues or materials in the space are not capable of producing an oxygen enriched or deficient environment, and are not capable of generating flammable or explosive vapours;
- All adjacent spaces have been cleaned, inerted, or sufficiently treated to prevent the risk of explosion, the release of noxious or toxic fumes or gasses and the spread of fire~~.~~;
- Work in adjacent spaces that may be impacted by the hot work, such as tank entry, lifting operations or deconstruction by hand.

Competent Person

A "competent person" for matters related to Safe for Hot Work should meet the criteria identified in 3.3.3.1 above.

Safe For Hot Work inspection, testing and determination

Each space on the ship should be certified by a competent person as "Safe for Hot Work" as often as necessary to ensure that conditions within that space are maintained as established by the Certificate after the Certificate has been issued. The frequency with which a space is monitored to determine if conditions are being maintained is a function of the following, but should in any event not exceed an 8 hours shift period:

- Temperature – any changes to temperature in the spaces could result in a change in atmospheric conditions. Hotter days can cause residues to produce more vapours resulting in a greater risk of flammable or explosive conditions.

- Work in the space – activity in the space could change the atmospheric conditions in that space. Gas leaks from a hose or torch or manual tank cleaning by hand scraping or tank cleaning by hand held ~~with~~ high pressure spray devices can stir up residues, which can result in a greater risk of flammable or explosive conditions.

- Period of elapsed time – if a sufficient period of time [(not to exceed 24 hours)] has elapsed since Safe-For-Hot-Work Certification has been issued, the condition of the space should be retested prior to entry and starting work.

- Unattended tanks or spaces – a tank or space that has been certified as "Safe for Hot Work" then subsequently left unattended for a sufficient period of time should be retested prior to entry and starting work.

- Work break – tanks or spaces should be checked for equipment left behind when workers take a break or leave at the end of the shift. The condition of the tank or space should be retested prior to entry and resuming work.

- Ballasting or trimming – changing the position of the ballast, or moving or trimming the ship in any way can produce a change in the atmosphere of the spaces. The condition of the spaces should be retested prior to entry and resuming work.

Safe For Hot Work certificate, warning signs and labels

Safe For Hot Work determinations should be accompanied by a Certificate which, at a minimum, includes the information identified in 3.3.3.1 (Safe for Entry certificate, Warning signs and labels). Warning signs and labels should be posted in the same manner as described in 3.3.3.1 for Safe for Entry, clearly indicating that the space is Safe for Hot Work.

Safe for Hot Work operational measures

In addition to ensuring certification as Safe for Hot Work, the following operational measures should also be observed:

- There is appropriate access and egress to the space and that the working area in the enclosed space is suitable for the work that is being considered and specifically heavy, large or complex lifting operations.

- The space and work site are provided with adequate illumination if necessary

- Each area where hot work is to be performed should be carefully prepared and isolated before hot work commences. A sample checklist is provided in Appendix x [*to be provided*].

- All trash, debris, oil residues, or other materials that could generate flammable or explosive vapours, should be removed from the space prior to commencing hot work. The space and adjacent spaces should be kept free of any trash, debris, oil residues, or other materials which could result in a risk of flammable or explosive conditions.

- Drums and similar small containers which have contained flammable substances should, before cutting is undertaken on them, either be filled with water or thoroughly cleaned of such substances.

- Tanks –

  - Deck tanks should be suitably cleaned and gas freed fit for entry and tested for hot work as described in the general sections [...]. A suitable supply of fresh air should be maintained appreciating that oxygen from the atmosphere may be removed in the combustion process. These tanks should be isolated and tested in accordance with the guidance given in this guide. Particular attention should be paid to access and egress and to the unique challenges these spaces present regarding to tank rescue in an emergency situation. [~~*to be provided*~~].

  - Fixed cargo or fuel tanks should be cleaned and ventilated being passed fit for entry and fit for hot work before any work commences. Cleaning should be suitable to remove any hazardous liquid, light solids and clinkage to allow the tank to be gas freed It should be appreciated that complex structures may required additional preparation before being suitable for hot work to be performed. The requirement and need of local hand cleaning should be considered. Ventilation should be suitable to allow suitable flow of air to all parts of the space to prevent build up of gasses either from the hot work or from the tank coatings,

- Cargo Holds – [*to be provided*].

- Ventilation should be provided at volumes and flow rates sufficient to ensure that the concentration of flammable vapours is maintained below the lower ~~explosive~~ flammable limit.

- General mechanical ventilation should be of sufficient capacity and so arranged as to produce the number of air changes necessary to maintain welding fumes and smoke within safe limits.

- That the ventilation provided for the space is adequate for the work to be undertaken and any diurnal variation in daily environmental conditions that may be experienced in hot or humid regions.

- The ventilation should be such to avoid gas pockets remaining in complex structures or that heavier than air vapours remaining on tank bottoms. This may be achieved by suction/ evacuation style ventilation rather than blower ventilation.

- The Ship Recycling Facility's fire safety procedure should be followed.
