U.S. Department of Homeland Security

United States Coast Guard

Commandant
U.S. Coast Guard

2703 Martin Luther King Jr. Ave SE
Washington, DC 20593-7509
Staff Symbol: CG-ENG
Phone: 202-372-1396
Email: TypeApproval@uscg.mil

16702
CG-ENG Policy Letter
No. 01-14
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From: J. W. Mauger, CAPT
COMDT (CG-ENG)

To: Distribution

Subj: LIFEBOAT RELEASE MECHANISMS: POLICY ON IMPLEMENTATION OF NEW SOLAS REGULATION III/1.5 AND IMO CIRCULAR MSC.1/CIRC.1392

1. Purpose. This policy letter provides guidance to assist U.S. flag ship owners and operators in complying with recent SOLAS amendments requiring all ships subject to SOLAS, regardless of build date, to identify and replace existing on-load release mechanisms (release hooks) that do not comply with specific provisions of the International Life-Saving Appliance (LSA) Code. Ships subject to SOLAS or which carry a SOLAS Safety Equipment Certificate are required to comply with the new SOLAS requirement in Chapter III no later than the applicable compliance date, or they will not meet the requirements in 46 CFR 2.01-25 for maintenance of a SOLAS Safety Equipment Certificate, and may also be subject to detention by foreign port state officials and other administrative action by port states.

2. Action. Owners and operators of ships subject to SOLAS should use this guidance to assist in the evaluation of their lifeboats and rescue boats fitted with on-load release mechanisms to determine what steps the Coast Guard recommends be taken to meet the new SOLAS requirements. Sector Commanders and Officers in Charge, Marine Inspection (OCMIs), and Classification Societies authorized to issue SOLAS Safety Equipment Certificates to U.S. flagged ships on behalf of the Coast Guard should use this guidance in the oversight of their respective U.S. flag fleets subject to SOLAS.

3. Discussion.

a. SOLAS Regulation III/1.5 requires all ships subject to SOLAS, regardless of build date, to identify existing on-load release mechanisms that do not comply with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the International Life-Saving Appliance (LSA) Code, as amended by IMO Resolution MSC.320(89); and replace them with compliant release mechanisms no later than the next scheduled dry-docking after July 1, 2014 (but in any case before July 1, 2019). SOLAS Regulation III/1.5 does not apply to the release mechanisms on free-fall lifeboats. Refer to enclosure (1) for IMO's implementation of SOLAS III/1.5, and enclosure (2) for a complete copy of Resolution MSC.320(89).

b. In support of new SOLAS Regulation III/1.5, IMO recently adopted "Guidelines for Evaluation and Replacement of Lifeboat Release and Retrieval Systems" (MSC.1/Circ.1392). Its purpose is to provide flag states, ship owners, and manufacturers of lifeboat release and retrieval systems a detailed five-step process for compliance with

new SOLAS Regulation III/1.5. See enclosure (3) for a complete copy of these Guidelines.

c. The Lifesaving and Fire Safety Division (CG-ENG-4) has been assisting manufacturers to implement enclosure (3), and posting the results in IMO's GISIS database "evaluation of hooks" module available to the public at the website:

http://gisis.imo.org/Public/Default.aspx.

4. Procedures.

a. Please see enclosure (4) for FAQs to assist owners and operators of ships subject to SOLAS in complying with SOLAS Regulation III/1.5.

b. U.S. flag ships not subject to SOLAS, and MODUs and offshore facilities, are not subject to the requirements of SOLAS Regulation III/1.5. However, since the amendments to the SOLAS requirements for on-load release mechanisms represent valuable safety improvements, the Coast Guard recommends that owners and operators with lifeboats or rescue boats fitted with such mechanisms consider voluntarily following the guidelines in enclosure (3).

5. Disclaimer. The guidance in this policy letter is not a substitute for applicable legal requirements and is not a rule. The guidance in this policy letter is not intended to impose legally-binding requirements on any party. This guidance represents the Coast Guard's current thinking on this topic and may assist industry, mariners, the general public, and the Coast Guard, as well as other Federal and state regulators, in applying statutory and regulatory requirements. An alternative approach may be used for complying with these requirements if the approach satisfies the requirements of the applicable statutes and regulations. If you want to discuss an alternative approach, you may contact Commandant (CG-ENG-4), which is the Coast Guard office responsible for implementing this policy.

6. Questions. Questions concerning this policy and guidance should be directed to Commandant (CG-ENG-4), Commercial Regulations and Standards Directorate, Office of Design and Engineering Standards, Lifesaving and Fire Safety Division at TypeApproval@uscg.mil.

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Enclosures:
(1) IMO Resolution MSC.317(89), Adoption of Amendments to the International Convention for the Safety of Life at Sea, 1974, as amended
(2) IMO Resolution MSC.320(89), Adoption of Amendments to the International Life-Saving Appliance (LSA) Code
(3) IMO Circular MSC.1/Circ.1392, Guidelines for Evaluation and Replacement of Lifeboat Release and Retrieval Systems
(4) FAQs to assist ship owners and operators with SOLAS III/1.5 and MSC.1/Circ.1392

ANNEX 1

RESOLUTION MSC.317(89)
(adopted on 20 May 2011)

ADOPTION OF AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING FURTHER article VIII(b) of the International Convention for the Safety of Life at Sea (SOLAS), 1974 (hereinafter referred to as "the Convention"), concerning the amendment procedure applicable to the Annex to the Convention, other than to the provisions of chapter I thereof,

HAVING CONSIDERED, at its eighty-ninth session, amendments to the Convention, proposed and circulated in accordance with article VIII(b)(i) thereof,

1. ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the Convention, the text of which is set out in the Annex to the present resolution;

2. DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on 1 July 2012, unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet, have notified their objections to the amendments;

3. INVITES SOLAS Contracting Governments to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 January 2013 upon their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General, in conformity with article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the Annex to all Contracting Governments to the Convention;

5. FURTHER REQUESTS the Secretary-General to transmit copies of this resolution and its Annex to Members of the Organization which are not Contracting Governments to the Convention.

ANNEX

AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED

CHAPTER III
LIFE-SAVING APPLIANCES AND ARRANGEMENTS

Regulation 1 – Application

The following new paragraph 5 is added after the existing paragraph 4:

"5 Notwithstanding paragraph 4.2, for all ships, not later than the first scheduled dry-docking after 1 July 2014, but not later than 1 July 2019, lifeboat on-load release mechanisms not complying with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the Code shall be replaced with equipment that complies with the Code.[*]

[*] Refer to the Guidelines for evaluation and replacement of lifeboat release and retrieval systems (MSC.1/Circ.1392)."

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ANNEX 4

RESOLUTION MSC.320(89)
(adopted on 20 May 2011)

ADOPTION OF AMENDMENTS TO THE INTERNATIONAL LIFE-SAVING APPLIANCE (LSA) CODE

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

NOTING resolution MSC.48(66), by which it adopted the International Life-Saving Appliance Code (hereinafter referred to as "the LSA Code"), which has become mandatory under chapter III of the International Convention for the Safety of Life at Sea, 1974 (hereinafter referred to as "the Convention"),

NOTING ALSO article VIII(b) and regulation III/3.10 of the Convention concerning the procedure for amending the LSA Code,

HAVING CONSIDERED, at its eighty-ninth session, amendments to the LSA Code, proposed and circulated in accordance with article VIII(b)(i) of the Convention,

1. ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the LSA Code, the text of which is set out in the Annex to the present resolution;

2. DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the amendments shall be deemed to have been accepted on 1 July 2012, unless prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet, have notified their objections to the amendments;

3. INVITES Contracting Governments to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 January 2013 upon their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General, in conformity with article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the Annex to all Contracting Governments to the Convention;

5. FURTHER REQUESTS the Secretary-General to transmit copies of this resolution and its Annex to Members of the Organization which are not Contracting Governments to the Convention.

ANNEX

AMENDMENTS TO THE INTERNATIONAL LIFE-SAVING APPLIANCES (LSA) CODE

CHAPTER IV
SURVIVAL CRAFT

1 In paragraph 4.4.7.6, the following new subparagraphs .2 to .6 are inserted after the existing subparagraph .1:

".2 notwithstanding subparagraph .7.2 the mechanism shall only open when the release mechanism is operated with the boat fully waterborne or, if the boat is not waterborne, by multiple, deliberate and sustained action which shall include the removal or bypassing of safety interlocks designed to prevent premature or inadvertent release;

.2.1 the mechanism shall not be able to open due to wear, misalignment and unintended force within the hook assembly or operating mechanism, control rods or cables as may be connected to, or form part of the hook assembly and with trim of up to 10º and a list of up to 20º either way; and

.2.2 the functional criteria of 4.4.7.6.2 and 4.4.7.6.2.1 apply for the range of loads, representing 0% to 100% of the safe working load of the lifeboat release and retrieval system for which it may be approved;

.3 unless a release mechanism is of the load over centre type, which is held fully closed by the weight of the lifeboat, the hook assembly shall be designed so that the moveable hook component is kept fully closed by the hook locking parts capable of holding its safe working load under any operational conditions until the hook locking part is deliberately caused to open by means of the operating mechanism. For designs utilizing the tail of the movable hook component and cam either directly or indirectly securing the tail of the movable hook component, the hook assembly shall continue to be closed and hold its safe working load through rotation of the cam of up to 45 degrees in either direction, or 45 degrees in one direction if restricted by design, from its locked position;

.4 to provide hook stability, the release mechanism shall be designed so that, when it is fully reset in the closed position, the weight of the lifeboat does not cause any force to be transmitted to the operating mechanism;

.5 locking devices shall be designed so that they can not turn to open due to forces from the hook load; and

.6 if a hydrostatic interlock is provided, it shall automatically reset upon lifting the boat from the water."

2 In paragraph 4.4.7.6, the existing subparagraph .2 is replaced by the following:

".7 the mechanism shall have two release capabilities: normal (off-load) release capability and on-load release capability:

.7.1 normal (off-load) release capability shall release the lifeboat when it is waterborne or when there is no load on the hooks, and not require manual separation of the lifting ring or shackle from the jaw of the hook; and

.7.2 on-load release capability shall release the lifeboat with a load on the hooks. This release mechanism shall be provided with a hydrostatic interlock unless other means are provided to ensure that the boat is waterborne before the release mechanism can be activated. In case of failure or when the boat is not waterborne, there shall be a means to override the hydrostatic interlock or similar device to allow emergency release. This interlock override capability shall be adequately protected against accidental or premature use. Adequate protection shall include special mechanical protection not normally required for off-load release, in addition to a danger sign. The protection shall be deliberately destroyed by applying a suitable minimum force, for instance by breaking a protection glass or translucent cover. A label or thin wire seal is not considered sufficiently robust. To prevent a premature on-load release, on-load operation of the release mechanism shall require multiple, deliberate and sustained action or actions by the operator;".

3 In paragraph 4.4.7.6, the existing subparagraph .3 is renumbered as subparagraph .8 and the words "without excessive force" are replaced by the words ", and any indicators shall not indicate the release mechanism is reset".

4 In paragraph 4.4.7.6, the following new subparagraph .9 is inserted after the renumbered subparagraph 8:

".9 all components of the hook unit, release handle unit, control cables or mechanical operating links and the fixed structural connections in a lifeboat shall be of material corrosion resistant in the marine environment without the need for coatings or galvanizing. Design and manufacturing tolerances shall be such that anticipated wear throughout the service life of the mechanism shall not adversely affect its proper functioning. Mechanical operating links such as control cables shall be waterproof and shall have no exposed or unprotected areas;".

5 In paragraph 4.4.7.6, the existing subparagraphs .4 to .8 are renumbered as subparagraphs .10 to .14, respectively.

6 In paragraph 4.4.7.6, in the renumbered subparagraph .10, the word "clearly" is replaced by the word "unambiguously".

7 In paragraph 4.4.7.6, in the renumbered subparagraph .14, the words "the load-bearing components of the release mechanism and" are added at the beginning and the words "of the release mechanism" are deleted.

8 In paragraph 4.4.7.6, the following new subparagraphs .15 and .16 are inserted after the renumbered subparagraph .14:

".15 a hydrostatic interlock shall be designed for a factor of safety of not less than 6 times maximum operating force based on the ultimate strength of the materials used;

.16 the operating cables shall be designed for a factor of safety of not less than 2.5 times maximum operating force based on the ultimate strength of the materials used; and".

9 In paragraph 4.4.7.6, the existing subparagraph .9 is renumbered as subparagraph .17 and in the renumbered subparagraph .17, the references to paragraphs "4.4.7.6.2.2 and 4.4.7.6.3" are replaced by the references to paragraphs "4.4.7.6.7, 4.4.7.6.8 and 4.4.7.6.15".

10 In paragraph 4.4.7.6, the referenced subparagraph .9 is replaced by .17.

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INTERNATIONAL MARITIME ORGANIZATION

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4 ALBERT EMBANKMENT
LONDON SE1 7SR
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1392
27 May 2011

GUIDELINES FOR EVALUATION AND REPLACEMENT OF LIFEBOAT RELEASE AND RETRIEVAL SYSTEMS

1 The Maritime Safety Committee, at its eighty-ninth session (11 to 20 May 2011), approved the Guidelines for evaluation and replacement of lifeboat release and retrieval systems, set out in the annex, as per SOLAS regulation III/1.5, following the recommendations made by the Sub-Committee on Ship Design and Equipment, at its fifty-fifth session, and the *Ad Hoc* Working Group on Lifeboat Release Hooks (16 to 18 March 2011).

2 Member Governments are invited to use the annexed Guidelines when applying SOLAS regulation III/1.5, as adopted by resolution MSC.317(89), and to bring them to the attention of all parties concerned.

3 Member Governments, shipowners and manufacturers of lifeboat release and retrieval systems are also strongly urged, pending the entry into force of SOLAS regulation III/1.5, to use the annexed Guidelines to evaluate existing lifeboat release and retrieval systems at the earliest available opportunity.*

4 Member Governments are strongly urged to ensure that all ships fitted with on-load release systems for lifeboats, are equipped with fall preventer devices as per paragraph 6 of these Guidelines at the earliest available opportunity.

5 Member Governments are encouraged to consider the results of evaluations reported to the Organization by other Member Governments on types of existing lifeboat release and retrieval systems.

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* Reference is made to MSC.1/Circ.1393 on Early application of new SOLAS regulation III/1.5.

ANNEX

GUIDELINES FOR EVALUATION AND REPLACEMENT OF LIFEBOAT RELEASE AND RETRIEVAL SYSTEMS

General

1 New SOLAS regulation III/1.5, which is expected to enter into force on 1 January 2013, requires that for all ships, on-load release mechanisms* not complying with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code, as amended by resolution MSC.320(89) (hereinafter called "the LSA Code"), be replaced or modified not later than the next scheduled dry-docking after 1 July 2014, but not later than 1 July 2019.

2 Considering that paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code represent important safety improvements, manufacturers should carry out a self assessment of their types of existing lifeboat release and retrieval systems in accordance with these Guidelines at the earliest available opportunity.

3 An Administration, or a recognized organization acting on its behalf, should carry out a design review to check that the type of existing lifeboat release and retrieval systems comply with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code and should witness the performance test to check that it is performed in accordance with appendix 1 of these Guidelines. This evaluation should be completed not later than 1 July 2013 and the report should be submitted in accordance with paragraph 14 below.

4 Administrations, or recognized organizations acting on their behalf, should, when applying SOLAS regulation III/1.5, ensure that an evaluation of the type of existing lifeboat release and retrieval system is undertaken, for compliance with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code, in accordance with these Guidelines.

5 A flowchart of the lifeboat release and retrieval system evaluation process, is set out in appendix 2.

6 On each ship, fall preventer devices in accordance with the Guidelines for the fitting and use of fall preventer devices (FPDs) (MSC.1/Circ.1327) should be employed for each existing lifeboat release and retrieval system until the system is:

.1 found compliant with the LSA Code; or

.2 modified and found compliant with the LSA Code; or

.3 found compliant with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code and paragraphs 16 and 17 (overhaul examination) of these Guidelines; or

.4 modified and found compliant with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code and paragraphs 16 and 17 (overhaul examination) of these Guidelines; or

.5 replaced by a new lifeboat release and retrieval system.

* For the purpose of these Guidelines, the expression "on-load release mechanism" has been replaced by "lifeboat release and retrieval system" (see paragraph 9.1).

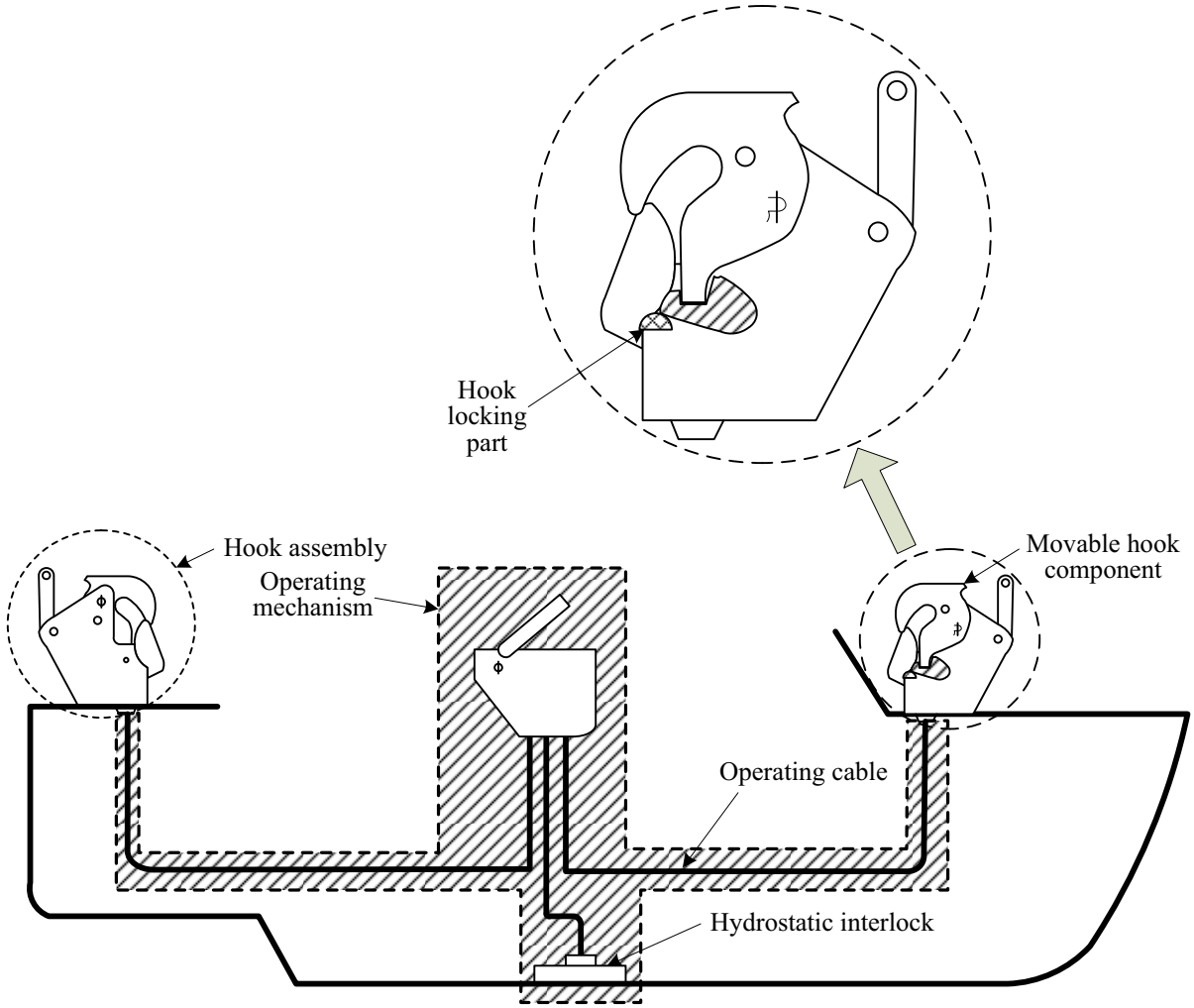
Modifications

7 A lifeboat release and retrieval system that has been determined to be non-compliant in accordance with these Guidelines may be modified to comply with the requirements of the revised paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code and the requirements of the existing applicable Code, provided that the modified release and retrieval system is evaluated in accordance with these Guidelines.

8 A type of lifeboat release and retrieval system that, after modification, complies with the requirements of the revised paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code and the requirements of the existing applicable Code should be identified as a system compliant after modification and reported as such. The report should include both the identification of the original type and the modified type.

Definitions

9 For the purpose of these Guidelines, the definitions given hereunder should apply, in accordance with the following figure.



Lifeboat release and retrieval system

9.1 *Lifeboat release and retrieval system* is the means by which the lifeboat is connected to, and released from, the lifeboat falls for lowering, launch and retrieval. It comprises the hook assembly and operating mechanism.

9.2 *Hook assembly* is the mechanism, attached to the lifeboat, which connects the lifeboat to the lifeboat falls.

9.3 *Movable hook component* is that part of the hook assembly in direct contact with the connection with the lifeboat falls which moves to enable release from the falls.

9.4 *Hook locking part* is the component(s) within a hook assembly which holds the movable hook component in the closed position until activated by the operating mechanism to release the hook. This activation may be performed through other components within the hook assembly.

9.5 *Operating mechanism* is the means by which the operator activates the opening, or release, of the movable hook component. It includes the operating handle, linkages/cables and hydrostatic interlock, if fitted.

9.6 *Type*, in relation to the design of a lifeboat release and retrieval system, means an identical lifeboat release and retrieval system of given safe working load, make and model (thus any change to the materials of construction, design arrangement or dimensions constitutes a change of type).

9.7 *On-load release* is the action of opening the lifeboat release and retrieval system whilst there is load on the hook assemblies.

9.8 *Evaluation* is a design review and a performance test of a type of lifeboat release and retrieval system.

9.9 *Manufacturer*, with respect to existing lifeboat release and retrieval systems, is:

.1 the original equipment manufacturer; or

.2 a manufacturer of lifeboat release and retrieval systems who has taken on the responsibility for a range or type of lifeboat release and retrieval system; or

.3 any other person or entity which has taken responsibility for a range or type of lifeboat release and retrieval system when the original manufacturer no longer exists or supports the equipment.

9.10 *Modifications* are changes to the design of an approved lifeboat release and retrieval system which may affect compliance with the original approval requirements or the prescribed conditions for the use of the product.

9.11 *New lifeboat release and retrieval system* is a lifeboat release and retrieval system that has been approved in accordance with paragraph 4.4.7.6 of chapter IV of the LSA Code, as amended by resolution MSC.320(89).

9.12 *Existing lifeboat release and retrieval system* is a lifeboat release and retrieval system that has not been approved in accordance with paragraph 4.4.7.6 of chapter IV of the LSA Code, as amended by resolution MSC.320(89).

9.13 *Company* means company as defined in SOLAS regulation IX/1.2.

Design review

10 Documentation and information for each type of lifeboat release and retrieval system should be submitted to the Administration, or recognized organization acting on its behalf, in order that an assessment can be carried out to determine compliance with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code. The manufacturer should submit the approval certificate, along with all associated supporting design calculations, plans and testing documentation to the Administration or recognized organization acting on its behalf. The design information should include the specification and the installation instructions for the complete operating system as well as all safety instructions regarding the operating system and any interlocks provided. Any submission for testing of a lifeboat release and retrieval system that cannot be supported with the above-mentioned information should not be eligible for testing against the requirements of the LSA Code.

11 If the outcome of the design review is non-compliance with the applicable paragraphs of the LSA Code, the lifeboat release and retrieval system should be replaced or modified to be made compliant.

Performance test

12 After a successful completion of the design review, a performance test should be conducted by the manufacturer for each type of lifeboat release and retrieval systems for compliance with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code, using the test specified in appendix 1 to these Guidelines. The performance test should be witnessed by the Administration or a recognized organization acting on its behalf.

13 Should any part of the lifeboat release and retrieval system fail at any stage during the test specified in paragraphs 1 to 4 of appendix 1, this type of lifeboat release and retrieval system should be deemed to be non-compliant and reported as such.

Reporting of the results of evaluation of existing lifeboat release and retrieval system

14 The Administration should report the results of each type of existing lifeboat release and retrieval system evaluation carried out in accordance with these Guidelines to the Organization, based on the reporting procedure, as set out in appendix 3.

15 Depending on the outcome of the evaluation, every lifeboat release and retrieval system should be categorized as being either compliant, compliant after modification or non-compliant. Thereafter:

.1 systems categorized as being compliant, or compliant after modification, may remain in service; and

.2 every system categorized as being non-compliant should be replaced with a new system or modified to be made compliant.

One-time follow-up overhaul examination

16 Not later than the first scheduled dry-docking after 1 July 2014, every lifeboat release and retrieval system of a type found to be compliant in respect of the existing lifeboat release and retrieval system evaluation should be subject to an overhaul examination according to annex 1 to the Measures to prevent accidents with lifeboats (MSC.1/Circ.1206/Rev.1) by the manufacturer or by one of their representatives. The examination also includes verification that

the system examined is of the same type as the system that passed the evaluation and is suitable for the ship.

17 The scope of the overhaul examination should also include a detailed assessment of the condition of the components of the lifeboat release and retrieval system to observe the extent of wear, corrosion, erosion and other types of material degradation that may have occurred. Upon satisfactory completion of the overhaul examination, the manufacturer or one of their representatives should issue a factual statement to confirm this, for retention on board.

Procedure for replacement of non-compliant lifeboat release and retrieval systems

18 The procedure outlined below should be followed in all cases where a lifeboat is to be fitted with replacement lifeboat release and retrieval systems with on-load release capability. It is noted that every lifeboat, complete with lifeboat release and retrieval system, is type-approved at manufacture and it is important to recognize that a lifeboat which is retro-fitted with a replacement lifeboat release and retrieval system to the satisfaction of the Administration should be regarded as offering a level of safety which is higher than that of the original installation.

19 Companies should, where possible, select replacement equipment acceptable to the lifeboat manufacturer. However, in cases where the lifeboat manufacturer is unable to offer a suitable replacement lifeboat release and retrieval system, the Company may select an alternative lifeboat release and retrieval system, with the agreement, if possible, of the lifeboat manufacturer.

20 The replacement equipment should be approved by the Administration or a recognized organization acting on its behalf, under the provisions of the LSA Code. Prior to the installation commencing, the Company should submit to the Administration, or a recognized organization acting on its behalf, for review and approval, as a minimum the following information:

.1 the proposed replacement equipment including approval certification;

.2 the engineering analysis of the replacement installation including:

.1 drawings of the original lifeboat release and retrieval system arrangement;

.2 detailed drawings showing clearly the proposed changes (e.g., position of suspension, lifeboat release and retrieval system, fixed structural connections of the release mechanism, link plates, including materials used for nuts and bolts with regard to strength and corrosion resistance); and

.3 if the drawings show that forces and/or force couples will change and/or the lifeboat release and retrieval system fixed structural connections of the release mechanism will change, calculation of static forces including a safety factor of 6, according to the LSA Code, from lifeboat release and retrieval system into lifeboat structure, including tension and shear forces in bolts, link plates, welds and keel shoe(s);

.3 considering that a lifeboat release and retrieval system does not consist just of the hook assemblies themselves, but also of release handles, cabling, etc., in the lifeboat, the evaluation of a replacement hook assembly other than that originally provided in the lifeboat should include such factors as loadings of the release handle on the console, efficiency of any hydrostatic interlock in light and

loaded conditions, whether the size/configuration of the replacement equipment would affect the stability or seating space of the lifeboat, and its compatibility with its launching appliance;

.4 amended operating and training manuals; and

.5 identification of the person(s) responsible for design appraisal, installation work and post-installation testing and evidence of their competence.

21 The Administration, or a recognized organization acting on its behalf, may allow that hook fixed structural connections of the release mechanism and supporting structure which are not made of material corrosion resistant in the marine environment, as required by paragraph 4.4.7.6.9 of the LSA Code, need not be replaced if they are in a good condition and installed in a sheltered position inside the lifeboat.

22 A copy of the engineering drawing(s) approved by the Administration, or by the recognized organization acting on its behalf, should be used during installation and testing and retained on board.

23 The installation should be carried out by the manufacturer or by one of their representatives. All work carried out should be witnessed by the Administration, or by a recognized organization acting on its behalf. Valid operating and safety instructions should be posted at the operating position and adjacent to the lifeboat release and retrieval system(s).

24 Post-installation testing should be carried out by the manufacturer or by one of their representatives and comprise the following:

.1 1.1 x load and simultaneous release test according to the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)), part 2, paragraph 5.3.1, or an equivalent method acceptable to the Administration;

.2 load test according to the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)), part 2, paragraph 5.3.4, as amended by resolution MSC.226(82), if the fixed structural connections of the release mechanism of the lifeboat is modified; and

.3 if the lifeboat is also a rescue boat and/or is installed on a cargo ship of 20,000 gross tonnage or above, the 5 knots installation test should be carried out, in accordance with the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)), part 2, paragraph 5.4.

25 All tests should be witnessed by the Administration, or by a recognized organization acting on its behalf, which should also verify that the installation complies in all respects with the documentation submitted by the Company and approved by the Administration, or a recognized organization acting on its behalf.

26 Following completion of installation testing, the Administration, or a recognized organization acting on its behalf, should issue a Statement of Acceptance, using the template set out in appendix 4, to the Company, for retention on board.

APPENDIX 1

TEST REQUIREMENTS FOR THE EVALUATION OF LIFEBOAT RELEASE AND RETRIEVAL SYSTEMS

A release and retrieval system should be conditioned and tested as follows:

.1 the lifeboat release and retrieval system and the longest used connection cable/linkage associated with the system should be mounted and adjusted according to instructions from the original equipment manufacturer and then loaded to 100% of its safe working load and released. Load and release should be repeated 50 times. During the 50 releases, the lifeboat release and retrieval system should be released simultaneously from each fall to which it is connected without any binding or damage to any part of the lifeboat release and retrieval system. The system should be considered as "failed" if any failure during the conditioning or unintended release occurs when load is applied but the system has not yet been operated;

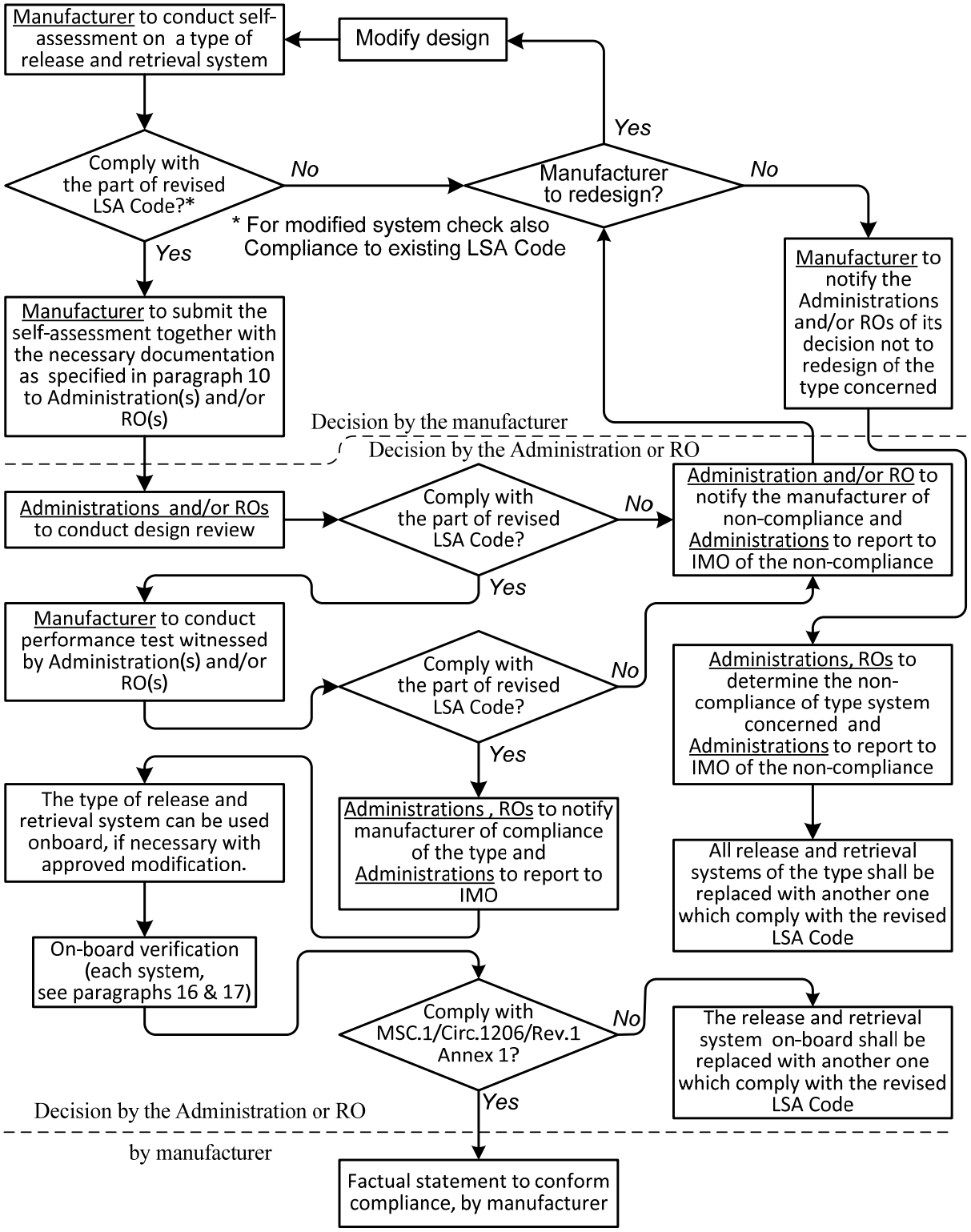
.2 the lifeboat release and retrieval system should then be disassembled, the parts examined and wear recorded. The release and retrieval system should then be reassembled;

.3 the hook assembly, whilst disconnected from the operating mechanism, should then be tested 10 times with cyclic loading from zero load to 1.1 times the safe working load, at a nominal 10 seconds per cycle; unless the release and retrieval system has been specifically designed to operate as an off-load hook with on-load capability using the weight of the boat to close the hook, in this case the cyclic load should be from no more than 1% to 1.1 times the SWL; and

.4 the cable and operating mechanism should then be reconnected to the hook assembly; and the lifeboat release and retrieval system should then be demonstrated to operate satisfactorily under its safe working load. The actuation force should be no less than 100 N and no more than 300 N, if a cable is used it should be the maximum length specified by the manufacturer, and secures in the same manner it would be secured in the lifeboat. The demonstration should verify that any interlocks, including hydrostatic interlocks, where fitted, indicators and handles are still functioning and are correctly positioned in accordance with the operation and safety instruction from the original equipment manufacturer.
The release and retrieval system is deemed to have passed the testing under this appendix when the tests have been conducted successfully. The system should be considered as "failed" if any failure during this test or any unintended release or opening occurs.

APPENDIX 2

EXISTING LIFEBOAT RELEASE AND RETRIEVAL SYSTEM EVALUATION PROCESS FLOW CHART



APPENDIX 3

INFORMATION ON THE EVALUATION OF EXISTING LIFEBOAT RELEASE AND RETRIEVAL SYSTEMS TO BE REPORTED

The following information should be provided for each lifeboat release and retrieval system:

Manufacturer's Details	**Name**
	Address
	E-mail address
Lifeboat release and retrieval system	**Type (see paragraph 9.6) and identification**
In case of modification	**Original type and identification**
	Details of modification
Specification of type (e.g., Maximum Safe Working Load (SWL))	
Details of the Administration, or recognized organization acting on its behalf, undertaking the evaluation of the lifeboat release and retrieval system	**Name**
	Address
	E-mail address
Evaluation report details	**No.**
	Date
Evaluation result	**Compliant / Non-compliant / Compliant after modification**
Report information	**Link to the relevant report (url)**
Reported by	**Name of the Administration**

APPENDIX 4

STATEMENT OF ACCEPTANCE OF THE INSTALLATION OF REPLACEMENT RELEASE AND RETRIEVAL SYSTEM TO AN EXISTING LIFEBOAT

Issued in accordance with the provisions of regulation I/5 of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, under the authority of [Administration][*]

Name of ship:
Port of registry:
IMO Number:

Lifeboat details:
Replacement release and retrieval system details:

Lifeboat identity	Lifeboat serial number	Release and retrieval system serial number (fwd)	Release and retrieval system serial number (aft)
No.1 (Stbd)			
No.2 (Port)			

The above release and retrieval system has been installed and tested under the supervision of the [Administration, or a recognized organization authorized to act on its behalf][*], as documented in Survey report no...; certificate no.... dated ... and [installation] drawing(s) no(s) ... dated ... .

This statement is to confirm that:

.1 The replacement release and retrieval system meets the relevant requirements of the LSA Code, chapter IV, section 4.4.7.6.

.2 The replacement release and retrieval system construction and the equipment of the above-mentioned ship was found to comply with the provisions of SOLAS regulation III/4 when tested in accordance with the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)), part 2, section 5.3.1. [The test required by paragraph 5.3.4 is waived as impracticable for this replacement procedure.][*]

.3 The validity of the relevant Safety Certificate is not affected by the installation of the replacement release and retrieval system.

.4 The installation of the replacement release and retrieval system offers a level of safety which is at least as effective as the original manufacturer's equipment.

The [Administration, or a recognized organization authorized to act on its behalf][*] certifies that this Statement of Acceptance augments and supersedes the affected sections of the original lifeboat approval certification. The statement must be kept on board the ship with all other relevant documentation at all times.

…….. …… (Stamp)
(Date)

[*] Insert as appropriate.

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FAQs – SOLAS III/1.5 and MSC.1/Circ. 1392

(1) What are the first steps I should take regarding compliance with SOLAS Regulation III/1.5?

We recommend that you immediately determine the model name(s) and approval number(s) of the release mechanisms installed on your lifeboats and rescue boats. Coast Guard approval numbers of release mechanisms should be marked on the release mechanism and will be in the form: 160.133/xxx/x or 160.033/xxx/x. The approval series "160.033" is now an obsolete approval series, but such mechanisms may remain in use. If your release mechanism was approved only under approval series "160.033" contact Commandant (CG-ENG-4) at typeapproval@uscg.mil for guidance.

If you cannot locate the model name or approval number for your release mechanism, the Coast Guard's Maritime Information Exchange ("CGMIX") website contains a list of all current and previously approved release mechanisms, searchable by approval series (i.e., 160.033, or 160.133), approval number, manufacturer name, or by keyword at the following website: http://cgmix.uscg.mil/equipment/equipmentsearch.aspx. If you need further assistance to determine this information, you may wish to contact the original boat manufacturer or a service provider for that make of boat.

Next, we recommend that you visit IMO's GISIS module on "Evaluation of hooks," or consult with the hook manufacturer or service provider, to find out if your model of hook has completed the self-assessment and/or performance test. IMO's GISIS module is available to the public at http://gisis.imo.org/Public/Default.aspx. Each release mechanism that has been evaluated by the Coast Guard will be listed as "compliant," "compliant with modification," or "non-compliant," with "United States" as the Reporting Authority.

If the hook is not listed, you may contact the Coast Guard at typeapproval@uscg.mil to inquire about the status of your mechanism. If you choose to contact the manufacturer or a lifeboat service provider directly regarding the status of your release mechanisms with respect to SOLAS Regulation III/1.5, we recommend that you request a copy of the relevant correspondence from Commandant (CG-ENG-4) concerning the self-assessment and performance testing of the release mechanism. A copy of that letter should be retained on board your vessel with the approval certificates for the lifeboat and release mechanism.

(2) What if my release mechanism is not listed in GISIS, or the manufacturer is no longer in business?

You may contact the Coast Guard at typeapproval@uscg.mil with the model and approval number of your release mechanisms. The Coast Guard will either provide you with the status of the evaluation of your equipment or, for mechanisms whose manufacturer is no longer in business, assist you in determining your options for compliance with SOLAS Regulation III/1.5.

(3) What is the next step if my hook is "compliant"?

No later than the first scheduled dry-docking after July 1, 2014, but in any case no later than July 1, 2019, all U.S. ships subject to SOLAS with installed davit-launched lifeboats, must have the overhaul examination outlined in Annex 1 to IMO Resolution MSC.1/Circ.1206/Rev.1 "Measures to prevent accidents with lifeboats" performed by the manufacturer or by a suitably qualified service provider in order to remain in compliance with SOLAS. You may download a copy of MSC.1/Circ.1206/Rev.1 from the IMO website at http://docs.imo.org or request it from us. Upon satisfactory completion of the overhaul examination, the manufacturer or service provider should issue a factual statement to confirm this, for retention on board.

(4) What is the next step if my hook is "compliant with modifications"?

Contact Commandant (CG-ENG-4) at typeapproval@uscg.mil for specific guidance on the process for modifying existing USCG approved release mechanisms.

(5) What is the next step if my hook is "non-compliant"?

In order to maintain a valid SOLAS Safety Equipment Certificate, non-compliant release mechanisms must be replaced no later than the first scheduled dry-docking after July 1, 2014, but in any case no later than July 1, 2019, with a USCG approved release mechanism approved under approval series 160.133 as complying with IMO Resolutions MSC.320(89) and MSC.321(89). You should contact the issuing authority of your Safety Equipment Certificate, either USCG or Class Society authorized under the Alternate Compliance Program, before undergoing a retrofit of approved release mechanisms in your lifeboats. See also answers to questions (6) and (7) below. You may find all current USCG approved release mechanisms by conducting a search under approval series 160.133 at our CGMIX website:

https://cgmix.uscg.mil/Equipment/EquipmentSearch.aspx.

IMO provided clarification on the term "first scheduled dry-docking" in IMO Circular MSC.1/Circ.1445, as follows: "In the context of SOLAS regulation III/1.5, the wording "first scheduled dry-docking" was introduced to mean the "first scheduled out of water survey of the ship's outer bottom." This explanation is to clarify that the on-load release mechanisms need not be compliant during an in-water survey, should this occur before a dry-docking."

Every Coast Guard approved lifeboat is approved with a specific Coast Guard approved release mechanism. Therefore, when a different Coast Guard approved release mechanism than that approved with the original boat is proposed for installation on a Coast Guard approved lifeboat or rescue boat, it constitutes a modification to the approved lifeboat, and the change must be submitted to the Coast Guard in advance for review and approval. See Question (6) below for specifics of what to submit to Commandant (CG-ENG-4) for retrofitting release mechanisms.

(6) How do I get Coast Guard approval of retrofitting Original Equipment Manufacturer (OEM) or non-OEM release mechanisms into existing approved lifeboats?

Owners of Coast Guard approved lifeboats should select a current Coast Guard approved release mechanism under approval series 160.133 as listed on our CGMIX website (see answers to questions 1 and 5 above) and select a suitable facility to undertake the retrofit work. We recognize that, in most cases, the facility undertaking the retrofit will have some association with the OEM of the lifeboat and/or the release mechanism. However, owners of Coast Guard approved lifeboats are not obligated to select replacement release mechanisms acceptable to, or manufactured by, the original lifeboat manufacturer.

Contact Commandant (CG-ENG-4) at typeapproval@uscg.mil for specific guidance on submitting requests for retrofitting release mechanisms into existing USCG approved lifeboats.

(7) My ship is enrolled in the Alternate Compliance Program (ACP). What is the role of the Authorized Classification Society with respect to compliance with SOLAS III/1.5?

Classification Societies accepted into the ACP are authorized to issue SOLAS Safety Equipment Certificates to U.S. ships subject to SOLAS on behalf of the Coast Guard. However, the authority to issue approval certificates for safety equipment, such as SOLAS lifeboats and release mechanisms, is not currently delegated under the ACP. Any potential modifications to a Coast Guard approved lifeboat on board a ship enrolled in the ACP must first be approved by Commandant (CG-ENG-4).

(8) If my ship has lifeboats that were issued approval from another Administration (e.g., re-flagged to the U.S. under the Maritime Security Program), do I need Coast Guard approval of retrofits of OEM or non-OEM release mechanisms into existing approved lifeboats?

Yes, ships with lifeboats, or even rescue boats when applicable, not approved by the Coast Guard should follow the guidance provided in the response to Question (6) above.

(9) What is the Coast Guard's policy on the use of fall prevention devices (FPDs)?

FPDs generally are one of two types: either (1) a locking pin that blocks the rotation of a release hook and thus its release from the fall; or (2) strops or slings that are intended to take the full load of the lifeboat, if necessary in the event of an unintentional release of the hook(s), by bypassing the hook itself and maintaining the connection of the lifeboat to the davit falls, without interfering with the raising, lowering, or stowage of the lifeboat when they are deployed.

IMO guidance clearly states that FPDs are intended to be used only as an interim risk mitigation measure for existing on-load release hooks until such time that improved design and performance criteria are implemented. As such, since the use of FPDs can

introduce certain operational risks, we recommend their use only until it can be confirmed that installed release mechanisms are "compliant".

However, prior to the latest amendments affecting release hooks, several manufacturers obtained approval of hooks with integral locking pins. Although they are functionally similar to FPDs, these locking pins are permanent design features of the release mechanism. As long as those Coast Guard approved hooks with locking pins meet the requirements of the LSA Code as amended by MSC.320(89), as specified on the approval certicate, they are considered compliant with respect to SOLAS III/1.5.

Strop and sling type FPDs do not require formal Coast Guard approval. However, we encourage ship operators to follow the guidance in sections 2.2 and 3 of MSC.1/Circ.1327, "Guidelines for the Fitting and Use of Fall Preventer Devices (FPDs)" which may be obtained at at http://docs.imo.org or from us. Some existing strop or sling type FPDs use the hanging-off pendant, also known as the maintenance pendant, as a point of connection to bypass the hook. When using strop/sling type FPDs that connect to the hanging-off pendant, operators should bear in mind that the hanging-off pendant, while a load bearing point, may not be designed with a safety factor adequate for the fully loaded weight, or more, of the lifeboat.

(10) Does SOLAS Regulation III/1.5 apply to all ships subject to SOLAS regardless of build date?

Yes. However, some lifeboats installed prior to July 1, 1986 may not require action to comply with SOLAS III/1.5. SOLAS III/1.5 applies to ships subject to SOLAS that have lifeboats with hooks designed and approved for on-load release. Certain older hook designs that pre-date the SOLAS requirements for on-load release are not considered to be on-load hooks subject to SOLAS III/1.5. When in doubt, contact Commandant (CG-ENG-4) at typeapproval@uscg.mil, or the original manufacturer of the lifeboat.

(11) Does the Coast Guard recognize the compliance status of release mechanisms posted to GISIS by foreign authorities in cases where they have approvals from both the Coast Guard and foreign authorities (e.g., the European "wheelmark")?

No, the Coast Guard must evaluate and accept all documents and tests performed on Coast Guard approved release mechanisms in order for the ship to comply with SOLAS III/1.5, regardless of whether a similar release mechanism has been approved and evaluated by another Administrations. There are cases where a particular model as approved in the U.S. is not identical to the same model approved by other authorities.