



SUB-COMMITTEE ON FIRE PROTECTION  
47th session  
Agenda item 5

FP 47/5  
13 September 2002  
Original: ENGLISH

## REVISION OF RESOLUTION A.654(16)

### Incorporation of ISO 17631 in revised resolution A.654(16)

#### Note by the Secretariat

##### SUMMARY

**Executive summary:** This document provides information on the revision of resolution A.654(16) as requested by the Sub-Committee at FP 47

**Action to be taken:** Paragraph 5

**Related documents:** FP 46/16 and MSC/Circ.1050

#### Background

1 The Sub-Committee, at its forty-sixth session, recalled that FP 41 had requested ISO to develop an international standard on safety plans for fire protection, life-saving appliances and arrangements and means of escape and, having considered the documents submitted by ISO (FP 46/8 and FP 46/INF.8), noted that standard ISO 17631:2002 – *Ships and marine technology - Shipboard plans for fire protection, life-saving appliances and means of escape*, had been developed, finalized and published as requested.

2 In considering how to incorporate standard ISO 17631:2002 within the IMO regulatory framework, the Sub-Committee agreed that, as an interim measure, an MSC circular should be issued to inform Member Governments and the marine industry of the new ISO standard so that they may use it, on a voluntary basis, for the preparation of the shipboard fire control plans, as required by both the existing and revised SOLAS chapter II-2, in anticipation of the pending revision of resolution A.654(16).<sup>\*</sup> In this regard, the Sub-Committee also agreed that it would consider, at FP 47, how to incorporate, or make reference to standard ISO 17631, in the revised resolution A.654(16) for adoption by the Assembly at its twenty-third session in 2003. The Sub-Committee further agreed that it would not alter the contents of standard ISO 17631 as part of the revision process.

3 To this end, the Sub-Committee requested the Secretariat to prepare two versions of the draft Assembly resolution for consideration as follows:

<sup>\*</sup> MSC 75 approved the draft MSC circular on Shipboard plans for fire protection appliances, life-saving appliances and means of escape, as contained in MSC/Circ.1050.

- .1 a draft Assembly resolution making reference to standard ISO 17631:2002 without incorporation of the ISO standard in the aforementioned resolution; and
- .2 a draft Assembly resolution which incorporates only the graphical symbols for fire safety systems and equipment contained in standard ISO 17631 similar in style to resolution A.654(16),

and, in both versions, encourage its use and application in the preparation of the shipboard fire control plans.

4 In pursuance of the above request, the Secretariat has prepared the aforementioned draft Assembly resolutions set out in annexes 1 and 2, respectively, for consideration by the Sub-Committee. In regard to the graphical symbols contained in annex 2, a colour version of these symbols are contained in document FP 46/INF.8\*.

#### **Action requested of the Sub-Committee**

- 5 The Sub-Committee is invited to consider the above and take action as appropriate.

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\* For reasons of economy, delegates are kindly requested to bring their copies of document FP 46/INF.8 to the session. A limited number of copies will be made available during the session.

**ANNEX 1****DRAFT ASSEMBLY RESOLUTION****GRAPHICAL SYMBOLS FOR SHIPBOARD FIRE CONTROL PLANS**

THE ASSEMBLY,

RECALLING Article 15(i) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety,

BEARING IN MIND that regulation II-2/15 of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, requires that fire control plans be permanently exhibited for the guidance of the ship's officers and that a duplicate set of fire control plans or a booklet containing such plans be permanently stored in an enclosure outside the deckhouse for the assistance of shore-based fire-fighting personnel,

RECOGNIZING that the use of universally understood symbols would greatly increase the usefulness of fire control plans, both for the crew of the ship and for shore-based fire brigades,

RECALLING ALSO resolution A.654(16) on Graphical symbols for fire control plans,

NOTING that ISO, in close co-operation with IMO, developed its standard ISO 17631:2002 – Ships and marine technology – Shipboard plans for fire protection, life-saving appliances and means of escape, providing fire protection symbols which generally conform to the corresponding symbols set out in resolution A.654(16),

NOTING IN PARTICULAR that MSC/Circ.1050 invited Member Governments to bring standard ISO 17631:2002 to the attention of shipbuilders, ship owners, ship operators, ship masters, shore-based fire-fighting personnel and other parties concerned with the preparation or use of shipboard fire control plans, so that they may use it, on a voluntary basis, for the preparation or use of shipboard fire control plans required by SOLAS regulation II-2/15, pending the adoption of the revised resolution A.654(16),

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee at its [seventy-seventh] session,

1. URGES Member Governments to bring standard ISO 17631:2002 to the attention of shipbuilders, ship owners, ship operators, ship masters, shore-based fire-fighting personnel and other parties concerned with the preparation or use of shipboard fire control plans, with a view to encouraging the use of the ISO standard for the preparation of shipboard fire control plans required by SOLAS regulation II-2/15;
2. REVOKES resolution A.654(16).

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**ANNEX 2****DRAFT ASSEMBLY RESOLUTION****GRAPHICAL SYMBOLS FOR SHIPBOARD FIRE CONTROL PLANS**

THE ASSEMBLY,

RECALLING Article 15(i) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety,

BEARING IN MIND that regulation II-2/15 of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, requires that fire control plans be permanently exhibited for the guidance of the ship's officers and that a duplicate set of fire control plans or a booklet containing such plans be permanently stored in an enclosure outside the deckhouse for the assistance of shore-based fire-fighting personnel,

RECOGNIZING that the use of universally understood symbols would greatly increase the usefulness of fire control plans, both for the crew of the ship and for shore-based fire brigades,

RECALLING ALSO resolution A.654(16) on Graphical symbols for fire control plans,

NOTING that ISO, in close co-operation with IMO, developed its standard ISO 17631:2002 – Ships and marine technology – Shipboard plans for fire protection, life-saving appliances and means of escape, providing fire protection symbols which generally conform to the corresponding symbols set out in resolution A.654(16),

NOTING IN PARTICULAR that MSC/Circ.1050 invited Member Governments to bring standard ISO 17631:2002 to the attention of shipbuilders, ship owners, ship operators, ship masters, shore-based fire-fighting personnel and other parties concerned with the preparation or use of shipboard fire control plans, so that they may use it, on a voluntary basis, for the preparation or use of shipboard fire control plans required by SOLAS regulation II-2/15, pending the adoption of the revised resolution A.654(16),

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee at its [seventy-seventh] session,






1. ADOPTS the Graphical symbols for shipboard fire control plans, set out in the Annex to the present resolution;
2. URGES Member Governments to bring the aforementioned graphical symbols to the attention of shipbuilders, ship owners, ship operators, ship masters, shore-based fire-fighting personnel and other parties concerned with the preparation or use of shipboard fire control plans with a view to encouraging their use for the preparation of shipboard fire control plans required by SOLAS regulation II-2/15;
3. INVITES Member Governments to bring standard ISO 17631:2002 to the attention of shipbuilders, ship owners, ship operators and ship masters so that they may use the additional guidance contained therein for the preparation of shipboard fire control plans;





4. REQUESTS the Maritime Safety Committee to keep this resolution under review and to amend it as necessary;
5. REVOKES resolution A.654(16).

ANNEX






**GRAPHICAL SYMBOLS FOR SHIPBOARD FIRE CONTROL PLANS**

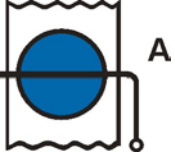


Graphical symbols for structural fire protection


No.	Graphical symbol	Reference	Comments on use
1.1		A-class division	
1.2		B-class division	
1.3		Main vertical zone	
1.4		A-class hinged fire door	<p>The symbol should be at the door position and should show the actual direction of the door.</p> <p>Add <b>WT</b> to the right side of the symbol in the case of a watertight door.</p> <p>Add <b>SWT</b> to the right side of the symbol in the case of a semi-watertight door.</p>
1.5		B-class hinged fire door	<p>The symbol should be at the door position and should show the actual direction of the door.</p> <p>Add <b>WT</b> to the right side of the symbol in the case of a watertight door.</p> <p>Add <b>SWT</b> to the right side of the symbol in the case of a semi-watertight door.</p>

No.	Graphical symbol	Reference	Comments on use
1.6		A-class hinged self-closing fire door	<p>The symbol should be at the door position and should show the actual direction of the door.</p> <p>Add <b>WT</b> to the right side of the symbol in the case of a watertight door.</p> <p>Add <b>SWT</b> to the right side of the symbol in the case of a semi-watertight door.</p>
1.7		B-class hinged self-closing fire door	<p>The symbol should be at the door position and should show the actual direction of the door.</p> <p>Add <b>WT</b> to the right side of the symbol in the case of a watertight door.</p> <p>Add <b>SWT</b> to the right side of the symbol in the case of a semi-watertight door.</p>
1.8		A-class sliding fire door	<p>The symbol should be at the door position and should show the actual direction of the door.</p> <p>Add <b>WT</b> to the right side of the symbol in the case of a watertight door.</p> <p>Add <b>SWT</b> to the right side of the symbol in the case of a semi-watertight door.</p>
1.9		B-class sliding fire door	<p>The symbol should be at the door position and should show the actual direction of the door.</p> <p>Add <b>WT</b> to the right side of the symbol in the case of a watertight door.</p> <p>Add <b>SWT</b> to the right side of the symbol in the case of a semi-watertight door.</p>













No.	Graphical symbol	Reference	Comments on use
1.10		A-class self-closing sliding fire door	<p>The symbol should be at the door position and should show the actual direction of the door.</p> <p>Add <b>WT</b> to the right side of the symbol in the case of a watertight door.</p> <p>Add <b>SWT</b> to the right side of the symbol in the case of a semi-watertight door.</p>
1.11		B-class self-closing sliding fire door	<p>The symbol should be at the door position and should show the actual direction of the door.</p> <p>Add <b>WT</b> to the right side of the symbol in the case of a watertight door.</p> <p>Add <b>SWT</b> to the right side of the symbol in the case of a semi-watertight door.</p>
1.12		Ventilation remote control or shut-off	<p>Colour of the circle and a letter at the right side of the symbol should indicate as follows:</p> <p><b>A</b> = blue for accommodation and service spaces;</p> <p><b>M</b> = green for machinery spaces;</p> <p><b>C</b> = yellow for cargo spaces.</p>
1.13		Remote control for skylight	
1.14		Remote control for watertight doors or fire doors	Add <b>WT</b> to the right side of the symbol to indicate remote control for watertight doors or <b>FD</b> to indicate remote control for fire doors.




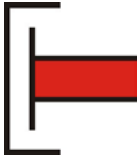



No.	Graphical symbol	Reference	Comments on use
1.15		Fire damper	<p>Colour of the circle and a letter at the right side of the symbol should indicate as follows:</p> <p><b>A</b> = blue for accommodation and service spaces;</p> <p><b>M</b> = green for machinery spaces;</p> <p><b>C</b> = yellow for cargo spaces.</p> <p>Identification number of the damper may be shown at the bottom of the symbol.</p>
1.16		Closing device for ventilation inlet or outlet	<p>Colour of the circle and a letter at the right side of the symbol should indicate as follows:</p> <p><b>A</b> = blue for accommodation and service spaces;</p> <p><b>M</b> = green for machinery spaces;</p> <p><b>C</b> = yellow for cargo spaces.</p> <p>Identification number of the damper may be shown at the bottom of the symbol.</p>
1.17		Remote control for fire damper(s)	<p>Colour of the circle and a letter at the right side of the symbol should indicate as follows:</p> <p><b>A</b> = blue for accommodation and service spaces;</p> <p><b>M</b> = green for machinery spaces;</p> <p><b>C</b> = yellow for cargo spaces.</p> <p>Identification number of the damper may be shown.</p>

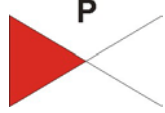
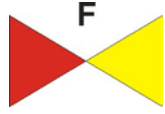
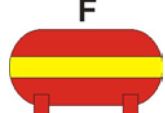
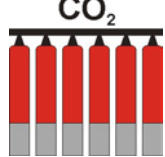
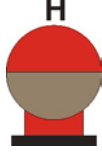

No.	Graphical symbol	Reference	Comments on use
1.18		Remote control for closing device(s) for ventilation inlet and outlet	<p>Colour of the circle and a letter at the right side of the symbol should indicate as follows:</p> <p><b>A</b> = blue for accommodation and service spaces;</p> <p><b>M</b> = green for machinery spaces;</p> <p><b>C</b> = yellow for cargo spaces.</p> <p>Identification number of the closing device(s) may be shown.</p>

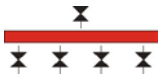

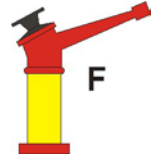


### Graphical symbols for fire-protection appliances




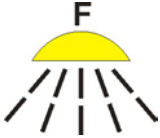

No.	Graphical symbol	Reference	Comments on use
2.1	<p style="text-align: center;"><b>Fire</b></p>  <p style="text-align: center;"><b>Plan</b></p>	Fire protection appliances or Structural fire protection plan	
2.2		Remote control for fire pump(s)	
2.3		Fire pump(s)	The type, quantity of water delivered per time unit, and pressure head shall be indicated either at the right side of the symbol or in the legend.

No.	Graphical symbol	Reference	Comments on use
2.4		Remote control for emergency fire pump or fire pump supplied by the emergency source of power	
2.5		Emergency fire pump	The type, quantity of water delivered per time unit, and pressure head shall be indicated either at the right side of the symbol or in the legend.
2.6		Fuel pump(s) remote shut-off	
2.7		Lube oil pump(s) remote shut-off	
2.8		Remote control for bilge pump(s)	
2.9		Remote control for emergency bilge pump	
2.10		Remote control for fuel oil valves	




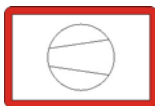



No.	Graphical symbol	Reference	Comments on use
2.11		Remote control for lube oil valves	
2.12		Remote control for fire pump valve(s)	
2.13		Remote release station	Indicate at the bottom of the symbol the protected space. Extinguishing media should be colour coded in the lower part of the symbol and be indicated by a letter at the right side of the symbol as follows: grey – <b>CO<sub>2</sub></b> for carbon dioxide or <b>N</b> for nitrogen, brown – <b>H</b> for gas other than CO <sub>2</sub> or N (type of gas to be indicated), white – <b>P</b> for powder, green – <b>W</b> for water.
2.14		International shore connection	
2.15		Fire hydrant	
2.16		Fire main section valve	Indicate the reference number of the valve at the right side of the symbol.
2.17		Sprinkler section valve	Indicate the reference number of the valve at the right side of the symbol.  This symbol may also be applied to equivalent water-extinguishing systems.  Valves for automatic dry-pipe sprinkler systems should be indicated in the legend.




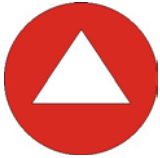
No.	Graphical symbol	Reference	Comments on use
2.18		Powder section valve	Indicate the reference number of the valve at the right side of the symbol.
2.19		Foam section valve	Indicate the reference number of the valve at the right side of the symbol.
2.20		Fixed fire-extinguishing installation	Extinguishing media should be colour-coded in the centre part of the symbol and indicated by a letter on top of the symbol as follows: grey – <b>CO<sub>2</sub></b> for carbon dioxide or <b>N</b> for nitrogen, yellow – <b>F</b> for foam, brown – <b>H</b> for gas other than <b>CO<sub>2</sub></b> or <b>N</b> (type of gas to be indicated), white – <b>P</b> for powder, green – <b>W</b> for water.
2.21		Fixed fire-extinguishing battery	Extinguishing media should be colour-coded in the lower part of the symbol and indicated by a letter on top of the symbol as follows: grey – <b>CO<sub>2</sub></b> for carbon dioxide or <b>N</b> for nitrogen, yellow – <b>F</b> for foam, brown – <b>H</b> for gas other than <b>CO<sub>2</sub></b> or <b>N</b> (type of gas to be indicated), white – <b>P</b> for powder, green – <b>W</b> for water.
2.22		Fixed fire-extinguishing bottle, placed in protected area	Extinguishing media should be colour-coded in the lower part of the symbol and indicated by a letter on top of the symbol as follows: grey – <b>CO<sub>2</sub></b> for carbon dioxide or <b>N</b> for nitrogen, yellow – <b>F</b> for foam, brown – <b>H</b> for gas other than <b>CO<sub>2</sub></b> or <b>N</b> (type of gas to be indicated), white – <b>P</b> for powder, green – <b>W</b> for water.
2.23		High expansion foam supply trunk (outlet)	Indicate at the bottom of the symbol the protected space, if necessary.

No.	Graphical symbol	Reference	Comments on use
2.24		Water spray system valves	Indicate at the bottom of the symbol the protected space, if necessary.
2.25		Inert gas installation	
2.26		Monitor	Extinguishing media should be colour-coded in the centre part of the symbol and indicated by a letter on top of the symbol as follows: yellow – <b>F</b> for foam, white – <b>P</b> for powder, green – <b>W</b> for water.
2.27		Fire hose and nozzle	Indicate the hose length at the right side of the symbol; where only one type of hose is used, the information can be shown in the legend. Extinguishing media should be colour-coded in the lower part of the symbol and indicated by a letter on top of the symbol as follows: yellow – <b>F</b> for foam, white – <b>P</b> for powder, green – <b>W</b> for water.
2.28		Fire extinguisher	Indicate type of extinguishing media ( <b>CO<sub>2</sub></b> for carbon dioxide, <b>F</b> for foam, <b>H</b> for gas other than CO <sub>2</sub> (type of gas to be indicated), <b>P</b> for powder, <b>W</b> for water) and capacity (kg for gas and powder, litres for water and foam) at the right side of the symbol. Media should be colour-coded in the lower part of the symbol as follows: grey for carbon dioxide, yellow for foam, brown for gas other than CO <sub>2</sub> , white for powder, green for water.




No.	Graphical symbol	Reference	Comments on use
2.29		Wheeled fire extinguisher	Indicate type of extinguishing media ( <b>CO<sub>2</sub></b> for carbon dioxide, <b>F</b> for foam, <b>H</b> for gas other than CO <sub>2</sub> (type of gas to be indicated), <b>P</b> for powder, <b>W</b> for water) and capacity (kg for gas and powder, litres for water and foam) at the right side of the symbol. Media should be colour-coded in the lower part of the symbol as follows: grey for carbon dioxide, yellow for foam, brown for gas other than CO <sub>2</sub> , white for powder, green for water.
2.30		Portable foam applicator unit or relevant spare tank(s)	
2.31		Fire locker	Indicate the number of the fire locker at the right side of the symbol.
2.32		Space or group of spaces protected by fire-extinguishing system	Indicate type of extinguishing media ( <b>CO<sub>2</sub></b> for carbon dioxide, <b>F</b> for foam, <b>H</b> for gas other than CO <sub>2</sub> (type of gas to be indicated), <b>P</b> for powder, <b>W</b> for water, <b>S</b> for sprinkler or high pressure water extinguishing system) and capacity (kg for gas and powder, litres for water and foam) at the top of the symbol. Add suffix "L" for fixed local application fire fighting system. Media should be colour-coded in the symbol as follows: grey for carbon dioxide, yellow for foam, brown for gas other than CO <sub>2</sub> , white for powder, green for water, orange for sprinkler or high pressure water extinguishing system.
2.33		Water fog applicator	



No.	Graphical symbol	Reference	Comments on use
2.34		Emergency source of electrical power (generator)	
2.35		Emergency source of electrical power (battery)	
2.36		Emergency switchboard	
2.37		Air compressor for breathing devices	
2.38		Control panel for fire detection and alarm system	
2.39		Push button/switch for general alarm	
2.40		Manually operated call point	The use of this symbol is optional at the discretion of the competent authority.

No.	Graphical symbol	Reference	Comments on use
2.41		Space or group of spaces monitored by smoke detector(s)	The space(s) shall be identified.
2.42		Space or group of spaces monitored by heat detector(s)	The space(s) shall be identified.
2.43		Space or group of spaces monitored by heat detector(s)	The space(s) shall be identified.
2.44		Space monitored by gas detector(s)	

### Graphical symbols for means of escape and escape related devices

3.1		Primary escape route	
3.2		Secondary escape route	
3.3		Emergency escape breathing device (EEBD)	Indicate the quantity of the EEBDs stowed at the right side of the symbol.