



SUB-COMMITTEE ON FIRE PROTECTION
54th session
Agenda item 9

FP 54/9
5 February 2010
Original: ENGLISH

**RECOMMENDATION ON EVACUATION ANALYSES FOR
NEW AND EXISTING PASSENGER SHIPS**

Report of the correspondence group

Submitted by Germany

SUMMARY

<i>Executive summary:</i>	This document provides the results of the work of the Correspondence Group on Recommendation on Evacuation Analyses for New and Existing Passenger Ships
<i>Strategic direction:</i>	5.1
<i>High-level action:</i>	5.1.1
<i>Planned output:</i>	5.1.1.1
<i>Action to be taken:</i>	Paragraph 7
<i>Related documents:</i>	MSC/Circ.1002, MSC/Circ.1238; FP 53/WP.5, FP 53/9 and FP 54/INF.6

Background

1 The Sub-Committee, at its fifty-third session, established a Correspondence Group on Recommendation on Evacuation Analyses for New and Existing Passenger Ships. This document summarizes the opinions and arguments of the correspondence group members. Since a great deal of fundamental arguments were used in the discussion, the complete submissions are listed in document FP 54/INF.6.

Participants in the correspondence group

2 Delegates from the following Member Governments participated in the group:

FRANCE
GERMANY
JAPAN

SWEDEN
UNITED STATES

and an observer from the following non-governmental organization:

CRUISE LINES INTERNATIONAL ASSOCIATION (CLIA)

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Terms of Reference

- 3 The group was instructed to:
 - .1 discuss a mandatory requirement for applying MSC/Circ.1238 to all passenger ships, and if appropriate, prepare draft amendments to the Guidelines;
 - .2 further consider alternative scenarios for evacuation analysis at an early stage of design, based on the proposals contained in document FP 53/9;
 - .3 further consider the establishment of uniform life safety criteria for evacuation routes, to be used in fire modelling carried out in conjunction with the Guidelines for evacuation analysis for new and existing passenger ships (MSC.1/Circ.1238) and the Guidelines on alternative design and arrangements for fire safety (MSC/Circ.1002); and
 - .4 submit a report to FP 54.

Terms of reference 1 – Mandatory requirement

4 No uniform opinion was reached concerning the mandatory application of the Guidelines. The main concerns were that the Guidelines are not sufficiently validated and do not represent the procedures on board of different ship types sufficiently accurate. Summarized, the following statements were made:

- .1 France:
 - .1 would be interested in the validation of MSC.1/Circ1238;
 - .2 not having had an important accident challenging the assembly phase recently, it is difficult to assess the necessity to make an evacuation analysis mandatory for passenger ships other than RoPax;
 - .3 the safety benefit should be assessed, as well as the cost/burden of such a requirement for passenger ships other than RoPax;
 - .4 the current MSC.1/Circ1238 is not fully adapted to procedures on cruise ships; and
 - .5 supports statements from Japan, United States and CLIA;
- .2 Germany:
 - .1 believes that the Guidelines should be mandatory for passenger ships exceeding a certain size; and
 - .2 brings forward arguments against arguments of France, Japan and CLIA;
- .3 Japan:
 - .1 MSC.1/Circ.1238 is only recommended by SOLAS regulation II-2/13.7.4. It is not appropriate to discuss mandatory application of the Guidelines (MSC.1/Circ.1238);

- .2 doubts that the experience on evacuation analyses is enough and whether the Guidelines have been fully validated;
 - .3 requirements for evacuation analyses should not apply to existing ships; and
 - .4 if the Guidelines become mandatory for all passenger ships, limitations on its application based on ship size should be discussed;
- .4 United States:
- .1 does not support the mandatory application of the total calculated evacuation times in paragraph 3.5.2 of the annexes;
 - .2 questions if the time limits (paragraph 4 of MSC/Circ.1238) will provide a true margin of safety in all cases;
 - .3 believes that the evacuation analysis should be used to identify relative differences in the evacuation times of each area; and
 - .4 supports statements of Japan and CLIA; and
- .5 CLIA:
- .1 comparison and verification of the evacuation analysis programmes have not been done, thus there is no confidence in the current state of the art;
 - .2 since spaces are not well defined at an early stage of design, the accuracy of the analysis will not be reliable;
 - .3 an exact time frame of 80 min for the evacuation to muster stations may or may not be the correct number to use. What if the design misses the time, by, e.g., 10 s?
 - .4 is concerned that disabled persons or crew assisting the evacuation are not taken into account by the simulations;
 - .5 requiring an evacuation analysis of existing cruise ships is pointless, since bottlenecks have been identified and solved by day to day operations;
 - .6 generally supports comments from Japan; and
 - .7 does not object to the analysis being made mandatory for new vessels.

Terms of reference 2 – Amend scenarios

5 It was generally agreed upon that amending the scenarios could be useful. The main desire was to alter the scenarios so they would match the procedures on board the different ship types and to implement the general philosophy of the safe return to port concept. Summarized, the following statements were made:

- .1 France:
 - .1 case 1 scenario should not be altered or suppressed;
 - .2 case 2 scenario could possibly be altered to be in line with the actual procedure of the ship;
 - .3 cases 3 and 4 could be altered and harmonized with SRTP concepts; and
 - .4 proposes amendments for the current cases;
- .2 Germany:
 - .1 agrees to submissions of others to alter current scenarios;
 - .2 expresses concerns regarding the definition of a “cruise ship day case”;
 - .3 proposes alterations for cases 3 and 4; and
 - .4 proposes an additional embarkation case;
- .3 Japan:
 - .1 would like to have the following sequence considered:
 - .1 fire breaks out;
 - .2 passengers go to their cabins; and
 - .3 passengers abandon ship;Scenario 1 is applicable for step 3; and
 - .2 does not oppose the amending or adding of scenarios;
- .4 United States:
 - .1 supports considering additional evacuation scenarios to support the safe return to port concept; and
 - .2 does not see the need to amend current scenarios, except for adapting case 2 to cruise ship procedures; and
- .5 CLIA:
 - .1 it is pointless to develop scenarios to the point of the catastrophic events;
 - .2 does not see the point of determining the time to evacuate one MVZ to the next one; and
 - .3 supports comments made by Japan in general.

Terms of reference 3 – Life safety criteria

6 It was the uniform opinion of the group that life safety criteria should not be part of the Guidelines (MSC/Circ.1238), but could be added to MSC/Circ.1002. Two propositions for this were made. Summarized, the following statements were made:

- .1 France:
 - .1 believes that the Guidelines' first aim is to check the "evacuability" of a ship in a standard way, rather than simulating actual emergency situations;
 - .2 believes that the life safety criteria should be discussed in the framework of MSC/Circ 1002; and
 - .3 generally supports comments made by Japan;
- .2 Japan:
 - .1 believes that it is not necessary to establish uniform life safety criteria at this stage; and
 - .2 proposes an addition at the end of paragraph 6.3.1 in the annex to MSC/Circ.1002;
- .3 United States:
 - .1 believes that separate guidelines should be prepared for this purpose, since the life safety criteria could also be used with MSC/Circ.1002; and
 - .2 proposes an addition to MSC/Circ.1002 which can be found in document FP 54/INF.6, annex 1; and
- .4 CLIA:
 - .1 is not convinced the United States' document is relevant to the actual evacuation analysis; and
 - .2 generally supports comments made by Japan.

Action requested of the Sub-Committee

7 The Sub-Committee is invited to take note of the outcome of the discussion and, in particular, to:

- .1 consider the discussions regarding a mandatory application of MSC/Circ.1238;
- .2 consider the proposals to amend and/or alter the scenarios currently defined in MSC/Circ.1238,
- .3 consider the proposal to amend MSC/Circ.1002 by life safety criteria; and
- .4 take action as appropriate.