Paris MoU on Port State Control

PSCircular 63

20 AUGUST 2013

GUIDANCE FOR PORT STATE CONTROL OFFICERS ON ASBESTOS

1. INTRODUCTION

From 1 July 2002, SOLAS regulation II-1/3-5 prohibits new installation of materials that contain asbestos for all ships except for some vanes, joints and insulation where very high temperatures and pressures are experienced. From 1 January 2011 new installation of materials that contain asbestos is prohibited for all ships without exception.

Despite these clear and unambiguous regulations, asbestos is still found on many locations on board ships. During inspections, asbestos has been found in such places like fire blankets, joints and insulation materials, types of sealants, friction material for brakes, wall and ceiling covering, cords, remnants, electric fuses, etc. Moreover, many ships that initially were free of asbestos appear to have asbestos on board as a result of repairs at shipyards and/or of purchasing spare parts in a later stage.

During MSC 88 the Netherlands submission on asbestos has been accepted and resulted in the MSC.1/Circ.1374.
This guidance will refer to the MSC.1/Circ.1374 and add some important issues.

2.Purpose

The purpose of this Circular is to:

.1 Raise awareness of PSCO's that asbestos is still being used in ships, notwithstanding the ban on its use;
.2 Underline the importance of adequate training of PSCO's to be able to recognize asbestos and asbestos containing materials (ACMs);
.3 Prevent any further use of asbestos on board ships;
.4 Stress the importance that MS take appropriate action in case asbestos is found on board of ships in violation of SOLAS;
.5 Administrations to consider the formulation of procedures to prevent asbestos contamination of their PSCO's;
.6 Record occurrences of asbestos in THETIS by setting up a dedicated code.

3. Application

The MSC.1/Circ. 1374 (INFORMATION ON PROHIBITING THE USE OF ASBESTOS ON BOARD SHIPS) should be followed.

4. Additional to MSC.1/Circ. 1374

Until the asbestos containing materials (ACMs) is removed, it should be sealed (or otherwise contained) to prevent further health issues.

Appropriate procedures should be followed to prevent health issues in the future if further work has to be done by the ship's crew. For this purpose refer to MSC/Circ.1045 (Guidelines for Maintenance and Monitoring of On-board Materials Containing Asbestos)

When a ship delivered after the 1st of July 2002 has ACM's on board in violation of SOLAS regulation II-1/3-5, an exemption certificate should have been issued by the flag state. In this case the flag state should have indicated in an action plan in which time frame the asbestos is removed and how the crew is instructed with respect to health and maintenance during the validity time frame of the exemption certificate.

In case an exemption certificate should have been issued, but is not the case, the ship should be detained and the Flag state informed.
The detention should be lifted when the flag state issued an exemption certificate including an action plan to remove the asbestos within a time frame of 3 years.

In case the ship has been built before the 1st of July 2002 and ACM's forms a thread for the health of the crew and visitors on board, MSC/ Circ. 1045 should be followed and the flag state should be contacted for their requirements.

5. Future developments

The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships is due to enter into force within a few years. From that date, the shipping company will have five years to draw up an inventory with respect to all dangerous substances which are part of the ship's structure and asbestos will have to be included in this inventory.

6. Justified miss

In case a ship couldn't be inspected due to asbestos, forming a health danger for the PSCO, the ship may be counted as a justified miss according to the Paris Memorandum.

Evidence and creating relevant files is up to the MS.

Code	**Defective item**	**Nature of defect**	**Convention reference**	**Equipment**	**Detainable**	**ROs**	
02133	Asbestos containing materials	Not as required, Not properly maintained, Damaged, Not sealed, Not removed	S74 II-1/3-5	Y	Y	Y	As in the agreed class condition, Rectified, At the next port, Within 14 days, Before departure, At an agreed repair port, As in the agreed flag State condition, Master instructed to…
01325	ACM statement of compliance (including exemption)	Invalid, Entries missing, Not as required	S74 II-1/3-5	N	Y	N	As in the agreed class condition, Rectified, At the next port, Within 14 days, Before departure, At an agreed repair port, As in the agreed flag State condition, Master instructed to…
18422	Asbestos fibres	Not as required	MLC Title 4 R4.3	N	Y	Y	As in the agreed class condition, Rectified, At the next port, Within 14 days, Before departure, At an agreed repair port, As in the agreed flag State condition, Master instructed to…

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Ref. T1/2.04

MSC.1/Circ.1374
3 December 2010

INFORMATION ON PROHIBITING THE USE OF ASBESTOS ON BOARD SHIPS

1 The Maritime Safety Committee, at its eighty-eighth session (24 November to 3 December 2010), approved information on prohibiting the use of asbestos on board ships, as set out in the annex, with the aim of raising awareness about the dangers involved among parties concerned.

2 Member Governments, in their capacity as flag, port or coastal States, as well as international organizations concerned, are invited to note the information provided herein and bring it to the attention of all parties concerned (including maritime Administrations, recognized organizations, port authorities, shipbuilders and ship repairers, and equipment suppliers), requesting them to make use of it as it may be deemed appropriate.

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ANNEX

INFORMATION ON PROHIBITING THE USE OF ASBESTOS ON BOARD SHIPS

Introduction

1 Since 1 July 2002, the installation of materials that contain asbestos has, under SOLAS regulation II-1/3-5, been prohibited for all ships, except for some vanes, joints and insulation. From 1 January 2011, any installation of materials that contain asbestos will, under SOLAS regulation II-1/3-5, be prohibited, for all ships without exceptions.

2 Despite the clear and unambiguous prohibition of asbestos containing materials (ACMs), asbestos is still found on various locations on board ships. During inspections, asbestos has been found in such places as fire blankets, joints and insulation materials, types of sealants, friction material for brakes, wall and ceiling coverings, cords, remnants, electric fuses, etc. Moreover, ships that initially were free of asbestos appear to have asbestos on board as a result of repairs at shipyards and/or of purchasing spare parts at a later stage.

Purpose

3 The purpose of this circular is to:

.1 raise awareness among maritime Administrations, recognized organizations, shipbuilders and ship repairers, equipment suppliers and all other parties concerned of the fact that asbestos is still being used on ships, notwithstanding its prohibition as stated in paragraph 1 above;

.2 highlight that the principal means of addressing the issue of asbestos being found on board ships in contravention of the aforementioned provisions of SOLAS rests with shipyards and ship suppliers purchasing and installing asbestos free material;

.3 underline the importance of proper training of surveyors and inspectors in detecting asbestos and ACMs on board ships;

.4 prevent any further use of asbestos on board ships; and

.5 stress the importance of maritime Administrations taking appropriate action in case ACMs are found on board ships, in contravention of the aforementioned provisions of the SOLAS Convention.

Applicability on seagoing ships

4 Ships built before 1 July 2002 are allowed to have ACMs on board. However, the ACMs are only allowed as long as they do not pose a risk to the crew's health. The crew should be aware of the dangers of asbestos and should know how to deal with asbestos in case disturbance of the ACMs cannot be avoided[1].

[1] Refer to MSC/Circ.1045, Guidelines for maintenance and monitoring of on-board materials containing asbestos.

5 Since 1 July 2002, new installation of ACMs on board all ships has been allowed only in exceptional cases.

6 From 1 January 2011, new installation of ACMs on board all ships will, without exception, no longer be allowed.

Recognizing asbestos containing materials

7 Asbestos is used for its specific characteristics such as fire resistance, thermal insulation, electrical insulation, strength, flexibility, etc. Therefore, asbestos is used in various locations throughout a ship. Inspectors should be aware of the large number of probable asbestos applications on board.

8 Asbestos is a fibrous material and can often be identified visually on that basis. However, most asbestos is used on board in materials where it cannot easily be identified visually.

9 It is recommended that, whenever an item or material is to be installed, it is ensured that the item or material has a statement of compliance, or similar, with the relevant SOLAS regulation. This may take the form of an "asbestos free declaration". Due diligence should be paid to such statements or declarations and it is recommended that random confirmations are carried out.

10 Although asbestos in most ACMs can only be ascertained by experts in specialized laboratories, it is possible to provide training to crew members, surveyors and inspectors in identifying materials that might be ACMs. As a result of such training, the crew and ship surveyors and inspectors can avoid health risks by having the suspected material sampled and analysed first. In case sampling and analysing by experts is not possible, the crew and ship surveyors and inspectors should treat the material as if it contains asbestos in order to avoid possible health risks.

Training of surveyors and inspectors

11 Surveyors and inspectors that are charged with asbestos investigations on board ships should be trained in recognizing asbestos and ACMs. They should also be trained in taking samples and should be instructed when to call in experts to conduct the investigation.

12 Surveyors and inspectors should be aware of the dangers of exposure to asbestos and should, while performing their corresponding duties, take all necessary precautions.

Action to be taken in case of contraventions of the SOLAS Convention regulation II-1/3-5

13 When asbestos is detected on board, in contravention of SOLAS regulation II-1/3-5, action should be taken to have it removed. The removal – assigned to professional asbestos removal companies – should take place within a time frame of 3 years from the date when the contravention is found and should be conducted in close consultation with and, where applicable, under the supervision of the flag State concerned. In such cases, a suitable exemption certificate should be issued by the flag State.

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MSC/Circ.1045
28 May 2002

GUIDELINES FOR MAINTENANCE AND MONITORING OF ON-BOARD MATERIALS CONTAINING ASBESTOS

1 The Maritime Safety Committee, at its seventy-fifth session (15 to 24 May 2002), approved Guidelines for maintenance and monitoring of on-board materials containing asbestos, as set out in the annex.

2 The guidelines are intended to provide guidance to Administrations, companies, seafarers and others closely involved with the operation of ships on how to deal with asbestos on board ships in service, with the principal objective of minimising exposure to asbestos fibres of passengers, crew, riding crews, maintenance personnel in port, etc., while the ship is in service.

3 Member Governments are invited to use the annexed Guidelines when dealing with asbestos on board ships in service. Member Governments are also invited to bring the Guidelines to the attention of all parties concerned, in particular companies, seafarers, ship operators and ship repairers.

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ANNEX

GUIDELINES FOR MAINTENANCE AND MONITORING OF ON-BOARD MATERIALS CONTAINING ASBESTOS

1 Introduction

1.1 These Guidelines aim at providing guidance to Administrations, companies as defined in SOLAS regulation IX/1, seafarers and others closely involved with the operation of ships on how to deal with asbestos on board ships in service.

1.2 They do not intend to address other aspects of asbestos that are already covered by the work of other international organizations (contact details of the International Labour Office (ILO) and the World Health Organization (WHO) are indicated in annex 2).

2 Scope of application

2.1 These Guidelines do not apply to ships which have asbestos aboard as allowed by SOLAS regulations II-1/3-5.2.1, 3-5.2.2 and 3-5.2.3.

2.2 The purpose of the Guidelines is to set up a maintenance and monitoring programme with the principal objective of minimising exposure to asbestos fibres of anyone on board (passengers, crew, riding crews, maintenance personnel in port) while the ship is "in service" (i.e., as opposed to when the ship is in a repair or dry-dock status with minimal crew members or only shore-side personnel on board).

2.3 The present Guidelines address the following three situations:

.1 general exposure of crew/passengers to asbestos which may be present on the ship;

.2 more direct exposure of crew members working in areas where there is reasonable likelihood that asbestos is – or asbestos fibres are – present; and

.3 specific exposure of crewmembers and other workers when they are maintaining or repairing equipment or systems known to contain asbestos-based insulated materials.

2.4 Planned repairs or removal of such materials should be carried out by specialist personnel and not normally by crew. In cases where the crew is involved in urgent repair work at sea, special measures should be observed as listed in annex 1. Procedures should be developed for the safe retention of any waste asbestos on board the ship before it can be transferred and disposed of ashore.

2.5 The provisions of these Guidelines do not apply to any warship, naval auxiliary or other ships owned or operated by a State and used, for the time being, only on government non-commercial service. However, each State should ensure, through the adoption of appropriate measures not impairing operations or operational capabilities of such ships owned or operated by it, that such ships act in a manner consistent, so far as is reasonable and practicable, with these Guidelines.

3 General provision

The Company should make provisions, including the nomination of a responsible person to control the maintenance and monitoring program for asbestos, in their Safety Management System (developed for compliance with the ISM Code) for the maintenance and monitoring of on board materials containing asbestos in line with the provisions of the present Guidelines.

4 Inventory and condition assessment of asbestos-containing materials

4.1 The Company should have an initial ship inspection performed by a qualified professional to investigate the possible presence of asbestos-containing materials on board the ship and, if any are identified, to locate them and assess their condition. The inspection should serve as the basis for establishing an effective maintenance and monitoring programme for dealing with the asbestos in the ship.

4.2 In the case of flake coatings, lagging or false ceilings containing asbestos, their condition should be assessed by completing the evaluation checklist shown in appendix 1 to annex 1, which takes into account, in particular, the accessibility of the materials and products, their degree of degradation, their exposure to shocks and vibration and the presence of air currents in the area. Air sampling of dust measurement may be used as one tool to help provide a more complete assessment of the ambient conditions on board. The evaluation form contained in appendix 2 to annex 1 should be used to make the diagnosis on the state of conservation of these materials.

5 Maintenance and monitoring programme

5.1 If asbestos-containing material is located, a maintenance and monitoring programme should be developed for that ship, based on the inspection and assessment data. The programme should be implemented and managed conscientiously and include the elements contained in annex 1.

5.2 In the case of flake coatings, lagging or false ceilings containing asbestos, depending on the diagnosis as described in paragraph 4.2, the company should establish appropriate thresholds and timescales for undertaking any necessary repairs or abatement, taking into account any national regulations.

6 Abatement actions, planned repair and removal of asbestos-containing materials

6.1 Abatement actions should be selected and implemented when necessary. In some instances, due to the condition of asbestos-containing materials or upcoming ship repairs or modifications, a Company may decide to take other abatement actions to deal with asbestos-containing materials in the ship. These response actions could include: encapsulation (covering the asbestos-containing materials with a sealant to prevent fibre release), enclosure (placing an air-tight barrier around the asbestos-containing materials), encasement (covering the asbestos-containing materials with a hard-setting sealing material) or repair or removal of the asbestos-containing materials. Qualified, trained and experienced contractors should be used for any of these actions. The Company should be aware of any national and local regulations that pertain to abatement actions to deal with asbestos-containing materials.

6.2 In the event of works requiring the removal of asbestos-containing materials, they should be unloaded from the ship. On completion of the work, and before any restoration of the spaces, the Company should carry out dust measurement after dismantling the enclosing mechanism. If the work does not result in the total removal of the materials and products listed in this order, the Company should carry out regular surveillance of the asbestos-containing materials at intervals identified by the Company as being appropriate, but not exceeding 3 years.

ANNEX 1

MAINTENANCE AND MONITORING PROGRAMME

A successful maintenance and monitoring programme should include the following elements.

1 Notification

A programme through which all those affected will be informed where asbestos-containing material is located, and how and why to avoid disturbing the asbestos-containing material.

2 Surveillance

Regular surveillance of asbestos-containing material to note, assess and document any changes in the condition of the asbestos-containing material.

3 Controls

The maintenance and monitoring programme should include a system to control all work that could disturb asbestos-containing material.

4 Work practices

A maintenance and monitoring programme should focus on a special set of work practices. The nature and extent of any special work practices should be tailored to the likelihood that the asbestos-containing material will be disturbed and that fibres will be released. In general, four broad categories of work practices are recognised:

.1 protection programmes to ensure crew members are adequately protected from asbestos exposure during normal maintenance;

.2 basic operations and maintenance procedures to minimise and/or contain asbestos fibres;

.3 special operations and maintenance cleaning techniques to clean up asbestos fibres on a routine basis; and

.4 procedures for use during incidents of asbestos fibre release episodes to minimise the spread throughout the ship.

In the latter case, the procedures to be followed will vary according to the site of the major release episode, the amount of asbestos-containing material affected, the extent of fibre release from the asbestos-containing material, the relationship of the asbestos-containing material to the air handling systems, and whether the release site is accessible to passengers and crew.

5 Record keeping

All ship asbestos management documents should be stored in permanent files. In addition, for crew members engaged in asbestos-related work there may be national regulations that require employers to retain medical records, health records and personal air sampling records for each crew member, and provision should be made to comply with such regulations.

6 Training

Training of maintenance personnel is one of the keys to a successful maintenance and monitoring programme. Inadequate training of personnel may result in asbestos operations and maintenance tasks not being performed properly, possibly leading to higher than necessary levels of asbestos fibres in the air and an increased risk being faced by crew members and passengers. The level of training may vary from:

.1 awareness training for personnel involved in activities where asbestos-containing materials may be accidentally disturbed;

.2 special operations and maintenance training for personnel involved in general maintenance and incidental repair tasks involving asbestos-containing material; and

.3 abatement worker training for workers who may conduct asbestos abatement. This level of work should not normally be expected of ship's crew members.

Appendix 1

EVALUATION CHECKLIST
where asbestos is present in flake coatings, lagging or false ceilings
(to be completed for each compartment)

Name of ship	
Date of check	
Compartment	
Stated destination of compartment	

Depending on diagnosis (see Appendix 2)	
1	Periodic check of state of conservation of materials
2	Monitoring of dust levels
3	Works

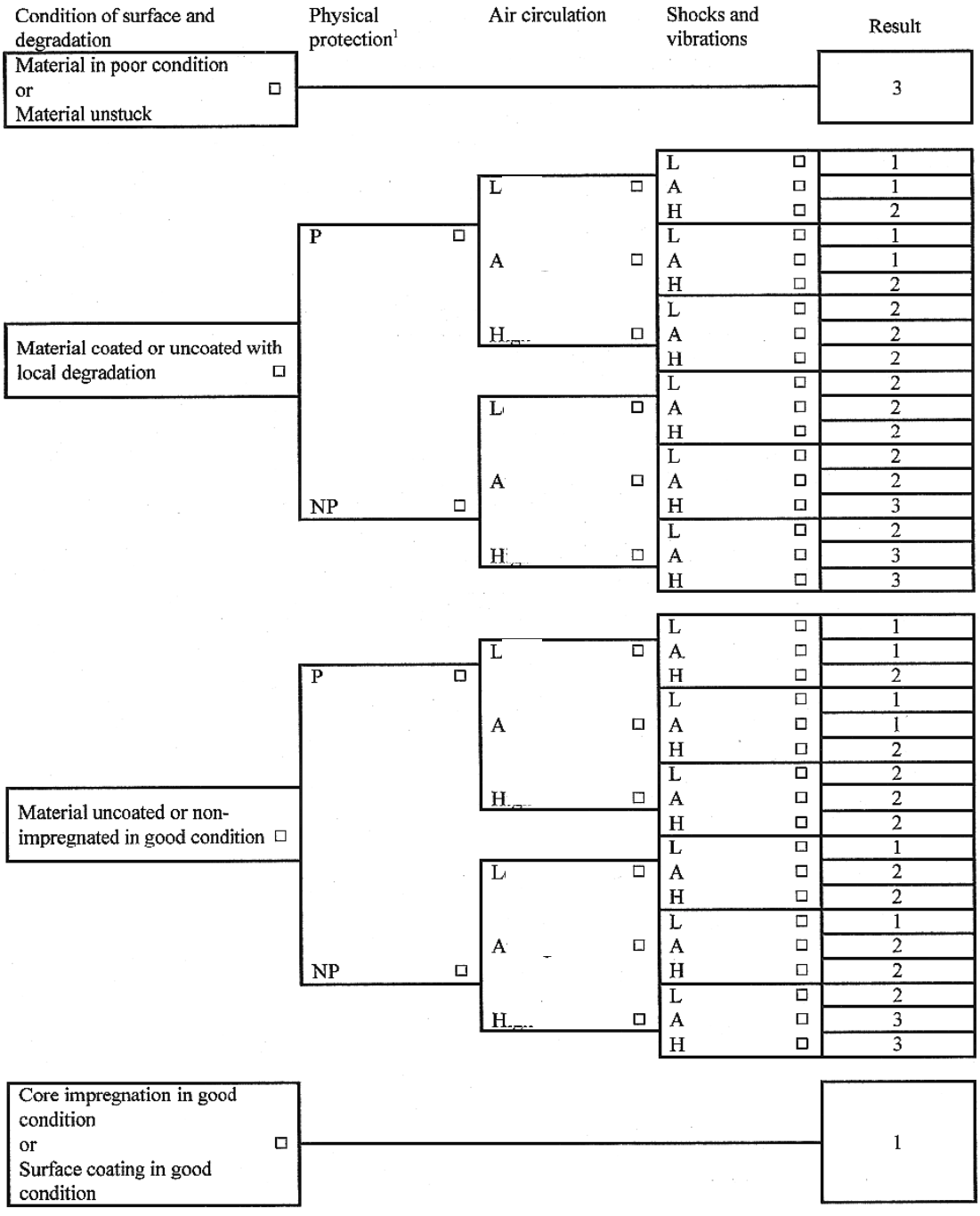
Characteristics of protection		
Watertight	☐	1
Non-watertight	☐	As indicated in Appendix 2

TABLE OF CRITERIA USED IN THE DIAGNOSTIC CHECKLIST

FLAKE COATINGS	**LAGGING**	**FALSE CEILINGS**
Condition of surface and degradation Material in poor condition or material unstuck Material coated or uncoated with local degradation Material uncoated non-impregnated in good condition Core impregnation in good condition or surface coating in good condition	**State of degradation** Lagging in poor condition Lagging with local degradation Lagging in good condition	**Condition of surface and degradation** Product in poor condition Product with local degradation Product in good condition
Reported protection of the material Physical protection non-watertight No physical protection		
Exposure of product to air current (including, depending on the situation plenum, false ceiling, etc.) Low Average High		
Exposure of product to shocks and vibrations Low Average High		

Appendix 2

EVALUATION OF THE STATE OF CONSERVATION OF FLAKE COATINGS, LAGGING OR FALSE CEILINGS



P: Physical protection non-watertight
NP: No physical protection
L: Low
A: Average
H: High

[1]Column not applicable for false ceilings

ANNEX 2

CONTACT DETAILS OF INTERNATIONAL ORGANIZATIONS WHICH HAVE ADDRESSED ASBESTOS-RELATED ISSUES

International Labour Office (ILO)

Address:	4, route des Morillons CH-1211 Geneva 22 Switzerland
Tel:	+ 41 22 799 6111
Fax:	+ 41 22 798 8685
Website:	www.ilo.org

World Health Organization (WHO)

Address:	Avenue Appia 20 CH – 1211 Geneva 27 Switzerland
Tel:	+ 41 22 791 2111
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Website:	www.who.org