

RESOLUTION A.413(XI) adopted on 15 November 1979
GUIDELINES ON SURVEYS AND INSPECTIONS UNDER THE PROTOCOL OF 1978 RELATING
TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AND
UNDER THE PROTOCOL OF 1978 RELATING TO THE INTERNATIONAL CONVENTION FOR
THE PREVENTION OF POLLUTION FROM SHIPS, 1973



ASSEMBLY - 11th session
Agenda item 10(b)

Distr.
GENERAL

A XI/Res.413
31 March 1980

Original: ENGLISH

IMCO

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GUIDELINES ON SURVEYS AND INSPECTIONS UNDER THE PROTOCOL OF 1978 RELATING
TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AND
UNDER THE PROTOCOL OF 1978 RELATING TO THE INTERNATIONAL CONVENTION FOR
THE PREVENTION OF POLLUTION FROM SHIPS, 1973

THE ASSEMBLY,

RECALLING Article 16(i) of the Convention on the Inter-Governmental Maritime
Consultative Organization concerning the functions of the Assembly,

DESIRING to provide an agreed international standard for conducting mandatory
annual surveys, unscheduled inspections of all cargo ships as well as intermediate
surveys on tankers of ten years of age and over under the Protocol of 1978
relating to the International Convention for the Safety of Life at Sea, 1974,

DESIRING ALSO to provide an agreed international standard for conducting
mandatory annual surveys, unscheduled inspections and intermediate surveys of
all ships under the Protocol of 1978 relating to the International Convention
for the Prevention of Pollution from Ships, 1973,

HAVING NOTED resolution 10 adopted by the International Conference on Tanker
Safety and Pollution Prevention, 1978, which recommends that the
Inter-Governmental Maritime Consultative Organization:

- (a) Take early action to develop guidelines for Administrations for
the performance of such surveys and inspections,
- (b) Take the necessary action in due course to amend the appropriate
instruments with a view to standardizing the periods of validity
of certificates as well as the intervals of intermediate surveys
and inspections required by the 1974 SOLAS Convention and the
1973 MARPOL Convention and their Protocols of 1978 and the
International Convention on Load Lines, 1966,

HAVING CONSIDERED the recommendations made by the Maritime Safety Committee
at its fortieth session,

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HAVING NOTED the recommendation made by the Marine Environment Protection Committee at its eleventh session,

1. ADOPTS the Guidelines on Mandatory Annual Surveys, Unscheduled Inspections of All Cargo Ships as well as Intermediate Surveys on Tankers of Ten Years of Age and over under the Protocol of 1978 relating to the International Convention for the Safety of Life at Sea, 1974, which are set out in the Annex to the present resolution and which are intended to provide a general framework upon which Administrations will be able to base their arrangements for carrying out surveys and inspections;
2. URGES Member Governments and Governments Parties to the afore-mentioned Protocol to institute arrangements for surveys and inspections in accordance with these Guidelines, when the 1978 SOLAS Protocol enters into force;
3. INVITES Governments which have introduced, or intend to introduce, all or part of the requirements for surveys and inspections under the 1978 SOLAS Protocol prior to its entry into force, to follow the Guidelines in conducting such surveys and inspections to the extent applicable;
4. REQUESTS the Marine Environment Protection Committee to adopt guidelines on mandatory annual surveys, unscheduled inspections and intermediate surveys of all ships under Annex I of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973;
5. AUTHORIZES the Marine Environment Protection Committee to transmit direct to Member Governments the guidelines under the 1978 MARPOL Protocol mentioned above which are intended to provide a general framework upon which Administrations will be able to base their arrangements for carrying out surveys and inspections;
6. REQUESTS the Maritime Safety Committee and the Marine Environment Protection Committee:
 - (a) To continue their work on this subject with a view to improving the Guidelines as may be necessary;
 - (b) To initiate formal action in due course to amend the appropriate instruments with a view to standardizing the periods of validity of certificates as well as the intervals and scope of intermediate surveys and inspections required by the 1974 SOLAS Convention and the 1973 MARPOL Convention, together with their Protocols of 1978, the International Convention on Load Lines, 1966, and any other appropriate instruments and to consider the possibility of combining and standardizing certificates.

ANNEX

GUIDELINES ON MANDATORY ANNUAL SURVEYS, UNSCHEDULED INSPECTIONS OF
ALL CARGO SHIPS AS WELL AS INTERMEDIATE SURVEYS ON TANKERS OF TEN
YEARS OF AGE AND OVER, UNDER THE PROTOCOL OF 1978 RELATING TO THE
INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

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Appendix 1 Form of Attachment to the Supplement of the Cargo Ship
Safety Construction Certificate

Appendix 2 Form of Attachment to the Supplement of the Cargo Ship
Safety Equipment Certificate

PREAMBLE

1. Resolution 10 of the International Conference on Tanker Safety and Pollution Prevention, 1978, called upon IMCO to develop guidelines for Administrations, as to the extent, particulars and frequency of intermediate surveys and inspections of ships having due regard to their construction, machinery, equipment and age, and also containing requirements for the frequency and scope of unscheduled inspections and the scope of mandatory annual surveys conducted in lieu of unscheduled inspections.
2. Accordingly, these Guidelines have been developed to provide an agreed general standard for conducting mandatory annual surveys, unscheduled inspections of all cargo ships as well as intermediate surveys on tankers of ten years of age and over, under the Protocol of 1978 relating to the International Convention for the Safety of Life at Sea, 1974.
3. As soon as the Protocol enters into force, Contracting Parties will be obliged to institute arrangements for conducting such surveys and it is with this purpose in mind that the Guidelines have been developed. The Conference recognized that uniform requirements in this field, such as the Guidelines can provide, would make a valuable contribution to the cause of ensuring compliance with the requirements of the Protocol.

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1 DEFINITIONS

For the purpose of these Guidelines and also for their applicability to the relevant conventions, protocols and codes, the following definitions apply:

1.1 Initial survey means a thorough and complete examination, and tests when required, of a ship and its equipment in accordance with the requirements of the appropriate convention or other instrument, to ensure that the relevant certificates may be issued for the first time.

1.2 Periodical survey means a thorough and complete examination, and tests when required, of a ship and its equipment in accordance with the requirements of the appropriate convention or other instrument, at specified regular periods.

1.3 Intermediate survey means an examination of a ship and its equipment between the periodical surveys within specified periods.

1.4 Mandatory annual survey means a general examination of a ship and its equipment, conducted annually, which may include operational tests of the ship's systems and equipment to the extent necessary to confirm that the ship and its equipment remain satisfactory for the service for which the ship is intended.

1.5 Additional survey means a survey which is not an initial, periodical, intermediate or mandatory annual survey.

1.6 Unscheduled inspection means a general examination of a ship and its equipment, without prior notice to the owner or master, which may include operational tests of the ship's systems and equipment to the extent necessary to confirm that the ship and its equipment remain satisfactory for the service for which the ship is intended.

2 APPLICATION OF DEFINITIONS TO CONVENTIONS, PROTOCOLS AND CODES

The definitions are applicable to the requirements of the 1974 SOLAS Convention and the 1973 MARPOL Convention, their Protocols of 1978, the 1966 Load Line Convention and Codes as follows:

2.1 Initial survey (Definition 1.1)

Terms used at present,
where different

SOLAS 1974, Chapter I	Reg. 7(a)(i)	Survey before ship is put in service
"	Reg. 8	
"	Reg. 9	
"	Reg. 10	Survey on completion
1978 SOLAS PROTOCOL	Reg. 7(a)(i)	Survey before ship is put in service
"	Reg. 8(a)	
"	Reg. 9	
"	Reg. 10(a)	Survey on completion
MARPOL 1973 Annex I	Reg. 4(1)(a)	
" Annex II	Reg. 10(1)(a)	
" Annex IV	Reg. 3(1)(a)	
1978 MARPOL PROTOCOL Annex I	Reg. 4(1)(a)	
Load Line Convention	Article 14(1)(a)	Survey before ship is put in service
Gas Carrier Code	Para. 1.6.1(a)	
Bulk Chemical Code	Para. 1.6.1	Satisfactorily inspected

2.2 Periodical survey (Definition 1.2)

SOLAS 1974, Chapter I	Reg. 7(a)(ii)	
"	Reg. 8	Subsequent survey
"	Reg. 9	"
"	Reg. 10	Thereafter in such manner and at such intervals as the Administration may consider necessary
1978 SOLAS PROTOCOL, Chapter I	Reg. 7(a)(ii)	
"	Reg. 8(a)	Subsequent survey
1978 SOLAS PROTOCOL Chapter I	Reg. 9	Subsequent survey
"	Reg. 10(a)(i)	
MARPOL 1973 Annex I	Reg. 4(1)(b)	
" Annex II	Reg. 10(1)(b)	
" Annex IV	Reg. 3(1)(b)	

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|----------------------|------------------|----------------------|--|
| 1978 MARPOL PROTOCOL | | | |
| Annex I | Reg. 4(1)(b) | | |
| Load Line Convention | Article 14(1)(b) | | |
| Gas Carrier Code | Para. 1.6.1(b) | | |
| Bulk Chemical Code | Para. 1.6.1 | Surveys at intervals | |
- 2.3 Intermediate survey (Definition 1.3)
- | | | | |
|----------------------|------------------|-----------------------|--|
| 1978 SOLAS PROTOCOL | | | |
| Chapter I | Reg. 8(b) | | |
| " | Reg. 10(a)(ii) | | |
| MARPOL 1973 Annex I | Reg. 4(1)(c) | | |
| " Annex II | Reg. 10(1)(c) | | |
| 1978 MARPOL PROTOCOL | | | |
| Annex I | Reg. 4(1)(c) | | |
| Load Line Convention | Article 14(1)(c) | Periodical inspection | |
| Gas Carrier Code | Para. 1.6.1(c) | | |
- 2.4 Mandatory annual survey (Definition 1.4)
- | | | | |
|----------------------|--------------|--|--|
| 1978 SOLAS PROTOCOL | | | |
| Chapter I | Reg. 6(b) | | |
| 1978 MARPOL PROTOCOL | | | |
| Annex I | Reg. 4(3)(b) | | |
- 2.5 Additional survey (Definition 1.5)
- | | | | |
|-----------------------|----------------|--|--|
| SOLAS 1974, Chapter I | Reg. 7(a)(iii) | | |
| 1978 SOLAS PROTOCOL | | | |
| Chapter I | Reg. 7(a)(iii) | | |
| " | Reg. 10(d) | Survey, either general
or partial according
to the circumstances | |
- 2.6 Unscheduled inspection (Definition 1.6)
- | | | | |
|----------------------|--------------|--|--|
| 1978 SOLAS PROTOCOL | | | |
| Chapter I | Reg. 6(b) | | |
| 1978 MARPOL PROTOCOL | | | |
| Annex I | Reg. 4(3)(b) | | |

NOTE: The term "control" as used in Regulation 19 of Chapter I, Part B of the 1974 SOLAS Convention and in Article 21 of the 1966 Load Line Convention is synonymous with the term "inspection" used in Article 5 of the 1973 MARPOL Convention.

3 MANDATORY ANNUAL SURVEY OF ALL CARGO SHIPS

(As required by Regulation 6(b), Chapter I of 1978 SOLAS Protocol)

3.1 Periodicity

3.1.1 The mandatory annual survey should be held within three months before or after the anniversary dates of the relevant Cargo Ship Safety Certificates, to ensure that the ship and its equipment as prescribed in Regulation 8(a) and 10(b) of Chapter I, of the Protocol of 1978 relating to the International Convention for the Safety of Life at Sea, 1974, (the 1978 SOLAS Protocol), have been maintained in accordance with Regulation 11 of Chapter I of the 1978 SOLAS Protocol and that the ship and its equipment remain satisfactory for the service intended.

3.1.2 In those cases where the anniversary dates of the Cargo Ship Safety Construction Certificate and the Cargo Ship Safety Equipment Certificate do not coincide, the mandatory annual survey may be appropriately divided into two separate surveys to facilitate timely endorsement of the attachment to the supplement of the applicable certificate.

3.1.3 When the date on which the mandatory annual survey for a tanker ten years of age and over is due coincides with the date of an intermediate survey as prescribed in either Regulation 8 or Regulation 10 of Chapter I of the 1978 SOLAS Protocol, the coinciding requirements of the two surveys may be satisfied by a single survey. However, care must be taken to ensure that those requirements of the mandatory annual survey which are outside the scope of the coinciding intermediate survey are also accomplished.

3.2 General

3.2.1 Where mandatory annual surveys are adopted by the Administration, they should apply to all cargo ships issued with the Safety Equipment and Safety Construction Certificate. The Administration, in guaranteeing the completeness and efficiency of the mandatory annual survey, should establish appropriate instructions and guidelines to enable officers of the Administration, nominated surveyors or recognized organizations to conduct the survey.

3.2.2 Mandatory annual surveys enable the Administration to verify that the condition of the ship, its machinery and equipment is being maintained in accordance with the relevant requirements of the 1978 SOLAS Protocol.

3.2.3 The Guidelines contained in section 3.3 provide a general framework upon which Administrations will be able to base their arrangements for carrying out mandatory annual surveys. It is recognized that survey provisions contained in the Guidelines are not necessarily applicable to all types and sizes of ships.

3.2.4 In general, the scope of the mandatory annual survey should be as follows:

- .1 it should consist of certificate examination, of a visual examination of a sufficient extent of the ship and its equipment and of certain tests to confirm that their condition is being properly maintained;
- .2 it should also include a visual examination to confirm that no unapproved modifications have been made to the ship and its equipment;
- .3 the thoroughness or stringency of the survey should depend upon the condition of the ship and its equipment;
- .4 should any doubt arise as to the maintenance of the condition of the ship or its equipment, then further examination and testing should be conducted as considered necessary.

3.3 Survey

3.3.1 Examination of current certificates and record books

3.3.1.1 The examination of current certificates and record books in general should consist of:

- .1 checking of the validity of all Safety Certificates issued in conformity with Regulation 12, Chapter I, 1974 SOLAS Convention and Regulation 14, Chapter I, 1978 SOLAS Protocol;
- .2 checking of the validity of the International Load Line Certificate;
- .3 checking of the certificates of class, if the ship is classed with a classification society.

3.3.1.2 For hull, machinery and equipment of cargo ships the survey should consist of:

- .1 checking whether the prescribed periodical surveys for the automatic/remote control systems such as the main propulsion automation system have been duly conducted;
- .2 checking whether the prescribed periodical surveys for the inert gas system in tankers have been duly conducted;
- .3 checking that the log book entries are being made, as required by Regulation 19-2(f), Chapter V, of the 1978 SOLAS Protocol.

3.3.1.3 For life-saving appliances and other equipment of cargo ships the survey should consist of:

- .1 confirmation that any new equipment has been properly approved before installation and that no changes have been made such as would affect the validity of the Cargo Ship Safety Equipment Certificate;
- .2 checking that all instructions and/or notices including emergency station muster list are properly posted and printed in a language understood by personnel on board;
- .3 checking that log book entries are being made, as required by Regulation 26, Chapter III, of the 1974 SOLAS Convention, and in particular:
 - .3.1 the date when the last full muster of the crew for boat and fire drill took place;
 - .3.2 the records indicating that the lifeboat equipment was examined at that time and found to be complete;
 - .3.3 the last occasion when the lifeboats were swung out and also which of them were lowered into the water;
- .4 checking as to whether any fire has occurred on board necessitating the operation of the fixed fire extinguishing systems, or the portable fire extinguishers since the last survey.

3.3.2 Survey of hull, machinery and equipment of cargo ships

3.3.2.1 For the hull the survey should consist of:

- .1 general examination of the hull and its closing appliances so far as can be seen;*
- .2 examination of anchoring and mooring equipment as far as practicable;
- .3 examination and testing (locally and remotely) of all watertight doors in watertight bulkheads, as far as practicable;
- .4 examination of watertight bulkhead penetrations as far as practicable;
- .5 confirmation as far as practicable that no significant changes have been made to the arrangement of structural fire protection;
- .6 confirmation of the operation of manual and/or automatic fire doors where fitted.

3.3.2.2 For the machinery and electrical plant the survey should consist of:

- .1 carrying out a general examination of machinery and boiler spaces with particular attention to the propulsion system, auxiliary machinery and the fire and explosion hazards; confirmation that emergency escape routes are not blocked;
- .2 examination and testing in operation of all main and auxiliary steering arrangements, including their associated equipment and control systems;
- .3 testing of all the means of communication between the navigating bridge and the machinery control positions, as well as the bridge and the alternative steering position, if fitted;
- .4 examination, as far as practicable, of the bilge pumping systems and bilge wells including operation of pumps, remote reachrods and level alarms, where fitted;

***Note:** For a ship to which an International Load Line Certificate is issued all closing appliances, scuppers and sanitary discharges and means for protection of the crew are inspected every year according to the requirements of the 1966 Load Line Convention.

- .5 external examination of boilers, pressure vessels and their appurtenances including safety devices, foundations, controls, relieving gear, high pressure and steam escape piping, insulation and gauges;
- .6 general examination visually and in operation, as feasible, of the electrical machinery, the emergency sources of electrical power, the switchgear and other electrical equipment;
- .7 confirmation as far as practicable of the operation of all emergency sources of power and, if they are automatic, also in the automatic mode.

3.3.3 Survey of life-saving appliances and other equipment of cargo ships

3.3.3.1 For the life-saving appliances the survey should consist of:

- .1 examination of all lifeboats, davits, embarkation arrangements and launching gear in position, as far as practicable. If practicable, one of the lifeboats should be lowered to the water;
- .2 testing that the engine of each motor lifeboat starts satisfactorily, testing both ahead and astern operation (as permitted by cargo handling conditions);
- .3 Checking that the inflatable liferafts have been serviced during the past twelve months, unless it is determined that the servicing has not been possible; checking that stowage will facilitate proper release and that launching instructions are posted. The embarkation arrangement of inflatable liferafts shall also be examined and, when provided, the launching arrangement of davit launched liferafts;
- .4 checking that lifebuoys are in good condition and that the required number are fitted with self-igniting lights and self-activating smoke signals and that all are properly stationed;
- .5 checking that rigid liferafts are in good condition and that stowage will facilitate rapid launching;
- .6 checking for proper stowage of life-jackets and random examination of their condition;
- .7 checking that ship and lifeboat distress signals and the line-throwing rockets are not out of date.
- .8 testing of the emergency lighting and general alarm system.

3.3.3.2 For the fire-fighting equipment the survey should consist of:

- .1 confirmation that fire control plans are properly posted;
- .2 examination as far as possible and testing as feasible of the fire and/or smoke detection system(s);
- .3 examination of the fire main system and confirmation that each fire pump including the emergency fire pump can be operated separately so that the two required powerful jets of water can be produced simultaneously from different hydrants;
- .4 confirmation that fire hoses, nozzles, applicators and spanners are in good working condition and situated at their respective locations;
- .5 examination of fixed fire-fighting system controls, piping, instructions and marking, checking for evidence of proper maintenance and servicing, including date of last systems tests;
- .6 confirmation that all semi-portable and portable fire extinguishers are in their stowed positions, checking for evidence of proper maintenance and servicing, conducting random check for evidence of discharged containers;
- .7 confirmation, as far as practicable, that the remote controls for stopping fans and machinery and shutting off fuel supplies in machinery spaces are in working order;
- .8 examination of the closing arrangements of ventilators, funnel annular spaces, skylights, doorways and tunnel, where applicable;
- .9 confirmation that the fireman's outfits are complete and in good condition.

3.3.3.3 For the navigational equipment the survey should consist of:

- .1 checking that navigation lights, shapes and sound signalling equipment are in order;
- .2 checking that the compass deviation record book is properly maintained and that the daylight signalling lamp is in order;
- .3 checking that the radar echo-sounding device and gyro compass are in working order;

- .4 checking that pilot ladders/hoists are in good condition and operational;
- .5 checking that nautical charts and publications are updated.

3.3.4 Additional requirements for tankers

3.3.4.1 For weather decks the survey should consist of:

- .1 examination of cargo tank openings including gaskets, covers, coamings and screens;
- .2 examination of cargo tank pressure/vacuum valves and flame screens;
- .3 examination of flame screens on vents to all bunker, oily ballast and oily slop tanks and void spaces, as far as practicable;
- .4 examination of cargo, crude oil washing, bunker, ballast and vent piping systems, including vent masts and headers;
- .5 confirmation that all electrical equipment in dangerous zones is in good condition and has been properly maintained.

3.3.4.2 For cargo pump rooms the survey should consist of:

- .1 confirmation that potential sources of ignition in or near the cargo pump room are eliminated, such as loose gear, excessive product in bilges, excessive vapours, combustible materials, etc., and that access ladders are in good condition;
- .2 confirmation that all electrical equipment is in good condition and has been properly maintained;
- .3 examination of all pump room bulkheads for signs of oil leakage or fractures and, in particular, the sealing arrangements of all penetrations of pumproom bulkheads;
- .4 examination of the condition of all piping systems;
- .5 examination as far as practicable of cargo, bilge, ballast and stripping pumps for excessive gland seal leakage, verification of proper operation of electrical and mechanical remote operating and shutdown devices and operation of pumproom bilge system, and checking that pump foundations are intact;
- .6 confirmation that the pumproom ventilation system is operational, ducting intact, dampers operational and screens are clean;
- .7 verification that installed pressure gauges on cargo discharge lines and level indicator systems are operational.

3.3.4.3 For the inert gas systems, when fitted, the survey should consist of:

- .1 external examination of the condition of all piping and components for signs of corrosion or gas leakage/effluent leakage;
- .2 confirmation of the proper operation of both inert gas blowers;
- .3 observation of the operation of the scrubber room ventilation system;
- .4 checking of deck water seal for automatic filling and draining and checking for presence of water carry-over and checking the condition of the non-return valve;
- .5 examination of the operation of all remotely operated or automatically controlled valves and, in particular, the flue gas isolating valve(s);
- .6 observation of a test of the interlocking feature of soot blowers;
- .7 observation that the gas pressure regulating valve automatically closes when the inert gas blowers are secured;
- .8 checking as far as practicable the following alarms and safety-devices of the inert gas system using simulated conditions where necessary:
 - .8.1 high oxygen content of gas in the inert gas main,
 - .8.2 low gas pressure in the inert gas main,
 - .8.3 low pressure in the supply to the deck water seal,
 - .8.4 high temperature of gas in the inert gas main,
 - .8.5 low water pressure to the scrubber,
 - .8.6 accuracy of portable and fixed oxygen measuring equipment by means of calibration gas.

3.3.4.4 For other items the survey should also consist of:

- .1 external examination of piping and cutout valves of cargo tank and cargo pumproom fixed fire-fighting system;
- .2 confirmation that the deck foam system and deck sprinkler system are in sound operating condition.

3.4 Completion of survey

3.4.1 After satisfactory survey the Attachment to the Supplement to the Cargo Ship Safety Construction Certificate and/or to the Supplement of the Cargo Ship Safety Equipment Certificate should be endorsed.

3.4.2 If a survey shows that the condition of the ship or its equipment is unsatisfactory, the officer of the Administration, nominated surveyor or recognized organization should be guided by the requirements of Regulation 6(d), Chapter I, of the 1978 SOLAS Protocol.

4 UNSCHEDULED INSPECTION OF ALL CARGO SHIPS

(As required by Regulation 6(b), Chapter I, of the 1978 SOLAS Protocol).

4.1 Unscheduled inspections of cargo ships should never be held in conjunction with any other survey or inspection except the unscheduled inspection provided for in Regulation 4(3)(b), Chapter I, Annex I of the 1978 MARPOL Protocol.

4.2 Unscheduled inspections should be at least as extensive as mandatory annual surveys, as required by section 3.3 and the scope of the inspection should be as follows:

- .1 it should consist of certificate examination, of a visual examination of a sufficient extent of the ship and its equipment and of certain tests to confirm that their condition is being properly maintained;
- .2 it should also include a visual examination to confirm that no unapproved modifications have been made to the ship and its equipment;
- .3 the thoroughness or stringency of the survey should depend upon the condition of the ship and its equipment;
- .4 should any doubt arise as to the maintenance of the condition of the ship or its equipment, then further examination and testing should be conducted as considered necessary.

4.3 Each Administration electing to conduct unscheduled inspections of cargo ships instead of mandatory annual surveys should ensure that at least twenty-five per cent of all the cargo ships of less than 10 years of age and at least fifty per cent of the cargo ships of ten years of age and over registered under its flag should undergo a minimum of one unscheduled inspection each year. The

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Administration should designate the ships to undergo the unscheduled inspection. The method for designating the ships should be left to the Administration with due regard being given to historical information concerning material conditions and operation performance.

4.4 Administrations electing to conduct unscheduled inspections of cargo ships should, as soon as possible after 1 January of each year, inform the Organization of the number of such ships which have undergone unscheduled inspections during the previous year, indicating whether the requirements of paragraph 4.3 have been met.

4.5 After satisfactory inspection the Attachment to the Supplement of the Cargo Ship Safety Construction Certificate and/or to the Supplement of the Cargo Ship Safety Equipment Certificate should be endorsed.

4.6 If a survey shows that the condition of the ship or its equipment is unsatisfactory, the officer of the Administration, nominated surveyor or recognized organization should be guided by the requirements of Regulation 6(d), Chapter I, of the 1978 SOLAS Protocol.

5 INTERMEDIATE SURVEY OF HULL, MACHINERY AND EQUIPMENT OF TANKERS OF TEN YEARS OF AGE AND OVER

5.1 Periodicity

As required by Regulation 10(a)(ii), Chapter I, of the 1978 SOLAS Protocol:

"A tanker of ten years of age and over shall undergo a minimum of one intermediate survey during the period of validity of its Cargo Ship Safety Construction Certificate. In cases where only one such intermediate survey is carried out in any one certificate validity period, it shall be held not before six months prior to, nor later than six months after, the half-way date of the certificate's period of validity."

5.2 General

The intermediate survey should be a thorough examination and should be sufficiently extensive to enable the Administration to attest that the ship's degree of compliance with the Cargo Ship Safety Construction Certificate warrants the ship's continued possession of the certificate and further that the ship can continue to be operated with safety.

5.3 Survey

The intermediate survey of hull, machinery and equipment of tankers of ten years of age and over should consist of all the relevant items required for the mandatory annual survey in section 3.3 as a minimum general framework and of additional items, as indicated below:

5.3.1 Examination of current certificates and of record books

The survey should consist of provisions 3.3.1.1 and 3.3.1.2.

5.3.2 Survey of hull

The survey should consist of provision 3.3.2.1 and additionally of:

- .1 examination of the shell including bottom and bow plating, keel, stem, stern frame and rudder;
- .2 noting the clearances measured in the rudder bearings;
- .3 examination of the sea connexions and overboard discharge valves and their connexions to the hull;
- .4 examination of anchoring and mooring equipment as far as practicable, for which purpose the anchors should be partially lowered and raised using the windlass;
- .5 examination of at least two selected cargo tanks internally.*

5.3.3 Survey of machinery and electrical plant

The survey should consist of provisions 3.3.2.2 and additionally of:

- .1 general examination of machinery and boiler spaces including tank tops, bilges and cofferdams, sea suction and overboards with particular attention to the propulsion system and the fire and explosion hazards; confirmation that emergency escape routes are not blocked;
- .2 examination of the propeller and shaft seals as far as practicable;
- .3 noting the clearance measured in the propeller shaft(s);
- .4 ascertaining that the routine surveys of boilers and other pressure vessels as determined by the Administration have been carried out as required and that safety devices such as boiler safety devices have been tested;

*Note: Cargo tanks are to be cleaned and the ship gas-freed to such an extent that the necessary surveys can be safely conducted, taking into account whether or not the ship is fitted with an inert gas system.

- .5 general examination of the electrical equipment and cables in dangerous zones such as cargo pumprooms and areas adjacent to cargo tanks for defective explosion proof lights and fixtures, improperly installed wiring, non-approved lighting and fixtures and dead ended wiring; testing the insulation resistance of the circuits. Except in cases where a proper record of testing is maintained, consideration should be given to accepting recent readings by the crew. If any of the readings are marginal or if the condition of the cables, fixtures or equipment appears defective in any way, verification measurements may be required. These measurements should not be attempted until the ship is in a gas free or inerted condition and should be carried out within an acceptable time period.

5.3.4 Survey of weather decks

The survey should consist of provisions 3.3.4.1 and additionally of the examination of cargo, crude oil washing, bunker, ballast, steam and vent piping as well as vent masts and headers. If upon examination there is any doubt as to the condition of the piping, the piping may be required to be pressure tested, gauged or both. Particular attention is to be paid to any repairs such as welded doublers.

5.3.5 Survey of cargo pump rooms

The survey should consist of provisions 3.3.4.2.

5.4 Completion of surveys

The provisions of 3.4 apply.

6 INTERMEDIATE SURVEY OF LIFE-SAVING APPLIANCES AND OTHER EQUIPMENT OF TANKERS OF TEN YEARS OF AGE AND OVER

6.1 Periodicity

As required by Regulation 8(b), Chapter I, of the 1978 SOLAS Protocol:

"Intermediate surveys shall be made for tankers of ten years of age and over, within three months before or after the anniversary date of the Cargo Ship Safety Equipment Certificate, to ensure that the equipment specified in paragraph (a) of this Regulation has been maintained in accordance with Regulation 11 of this Chapter and that

it is in good working condition. Such intermediate surveys shall be endorsed on the Cargo Ship Safety Equipment Certificate issued in accordance with Regulation 12(a)(iii) of Chapter I of the Convention."

6.2 General

The intermediate survey should be sufficiently extensive to enable the Administration to attest that the ship's degree of compliance with the Cargo Ship Safety Equipment Certificate warrants the ship's continued possession of the certificate and further that the ship can continue to be operated with safety.

6.3 Survey

The intermediate survey of life-saving appliances and other equipment of tankers of ten years of age and over should consist of all the relevant items as required for the mandatory annual survey in section 3.3, as a minimum general framework, as indicated below:

- .1 examination of current certificates and of record books (cf. 3.3.1.1 and 3.3.1.3);
- .2 survey of life-saving appliances (cf. 3.3.3.1);
- .3 survey of fire-fighting equipment (cf. 3.3.3.2);
- .4 survey of navigational equipment (cf. 3.3.3.3);
- .5 survey of inert gas system (cf. 3.3.4.3);
- .6 other items (cf. 3.3.4.4).

6.4 Completion of survey

6.4.1 After satisfactory survey the Supplement to the Cargo Ship Safety Construction Certificate and/or the Supplement to the Cargo Ship Safety Equipment Certificate should be endorsed.

6.4.2 If a survey shows that the condition of the ship or its equipment is unsatisfactory, the officer of the Administration, nominated surveyor or recognized organization should be guided by the requirements of Regulation 6(d), Chapter I, of the 1978 SOLAS Protocol.

Appendix 1

For of Attachment to the Supplement of the
Cargo Ship Safety Construction Certificate

In implementation of Regulation 6(b) of Chapter I of the Protocol of
1978 relating to the International Convention for the Safety of Life at
Sea, 1974, the Government of
has instituted:

- Mandatory annual surveys 1/ 2/
- Unscheduled inspections 1/

1st mandatory annual survey 1/
1st unscheduled inspection 1/ 3/

Signed
Place
Date
(Seal or stamp of the Authority,
as appropriate)

2nd mandatory annual survey 1/
2nd unscheduled inspection 1/ 3/

Signed
Place
Date
(Seal or stamp of the Authority,
as appropriate)

3rd mandatory annual survey 1/
3rd unscheduled inspection 1/ 3/

Signed
Place
Date
(Seal or stamp of the Authority,
as appropriate)

1/ Delete as appropriate.

2/ An intermediate survey, but not an unscheduled inspection, may take the
place of a mandatory annual survey.

3/ Entry to be made in the signature column for either the mandatory annual
survey or the unscheduled inspection, as applicable.

4th mandatory annual survey 1/
4th unscheduled inspection 1/ 3/

Signed

Place

Date

(Seal or stamp of the Authority,
as appropriate)

1/ Delete as appropriate.

2/ An intermediate survey but not an unscheduled inspection, may take the place of a mandatory annual survey.

3/ Entry to be made in the signature column for either the mandatory annual survey or the unscheduled inspection, as applicable.

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Appendix 2

Form of Attachment to the Supplement of the
Cargo Ship Safety Equipment Certificate

In implementation of Regulation 6(b) of Chapter I of the Protocol of
1978 relating to the International Convention for the Safety of Life at
Sea, 1974, the Government of
has instituted:

- Mandatory annual surveys 1/ 2/
- Unscheduled inspections 1/

Mandatory annual survey 1/
Unscheduled inspection 1/ 3/

Signed

Place

Date

(Seal or stamp of the Authority,
as appropriate)

1/ Delete as appropriate.

2/ An intermediate survey, but not an unscheduled inspection, may take the
place of a mandatory annual survey.

3/ Entry to be made in the signature column for either the mandatory annual
survey or the unscheduled inspection, as applicable.

RESOLUTION A.413(XI) adopted on 15 November 1979
GUIDELINES ON SURVEYS AND INSPECTIONS UNDER THE PROTOCOL OF 1978 RELATING
TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AND
UNDER THE PROTOCOL OF 1978 RELATING TO THE INTERNATIONAL CONVENTION FOR
THE PREVENTION OF POLLUTION FROM SHIPS, 1973