

# HULL SURVEY FOR NEW CONSTRUCTION AUGUST 2007

## NOTICE NO. 1 – August 2010

The following changes become **EFFECTIVE AS OF 1 JULY 2010**.

*(See <http://www.eagle.org> for the consolidated version of the Guide for Hull Survey for New Construction, 2007, with all Notices and Corrigenda incorporated.)*

*Notes - The date in the parentheses means the date that the Rule becomes effective for new construction based on the contract date for construction, unless otherwise noted. (See 1-1-4/3.3 of the ABS Rules for Conditions of Classification (Part 1).)*

## Foreword

*(Add new second paragraph, as follows.)*

*(1 July 2010)* The July 2010 update to this Guide incorporates the latest requirements of IACS UI SC234, UI LL76, and UI MPC96, regarding initial statutory surveys at new construction. Updates to IACS UR Z23 are also incorporated.

## 2 Definitions

### 2.3 Survey Methods

*(Revise Subparagraphs 2.3.1 and 2.3.2, as follows.)*

#### 2.3.1 Patrol *(1 July 2010)*

*Patrol* is the act of checking on an independent and unscheduled basis that the applicable processes, activities and associated documentation of the shipbuilding functions identified in Table 1 continue to conform to classification and statutory requirements.

#### 2.3.2 Review *(1 July 2010)*

*Review* is the act of examining documents in order to determine traceability and identification and to confirm that processes continue to conform to classification and statutory requirements.

## 3 Applications

*(Revise Paragraph 3.2, as follows.)*

### 3.2 Statutory Items *(1 July 2010)*

This Guide covers all statutory items relevant to the hull structure and coating (i.e., Load Line and SOLAS Safety Construction).

*(Revise Paragraph 3.5, as follows.)*

### **3.5 Locations of Construction (1 July 2010)**

This Guide applies to the hull structures constructed and coatings applied at any of the following:

- i)* Shipbuilder's facilities
- ii)* Subcontractors at the shipbuilder's facilities
- iii)* Subcontractors at their own facilities or at other remote locations

*(Revise Subsection 4, as follows.)*

## **4 Qualification and Monitoring of Personnel (1 July 2010)**

The Surveyors are to confirm through patrol, review and witness as defined in 2.3, that the vessels are built using approved plans in accordance with the relevant Rules and statutory requirements. The Surveyors are to be qualified to be able to carry out the tasks and procedures are to be in place to ensure that their activities are monitored. (See Section 1-1-6 of the *ABS Rules for Building and Classing Steel Vessels*.)

## **5 Survey of the Hull Structure**

*(Revise first line of Paragraph 5.1, as follows.)*

### **5.1 Items to be Surveyed (1 July 2010)**

Table 1 provides a list of surveyable items for the hull structure and coating covered by this Guide, including:

*(Following text remains unchanged.)*

## **6 Review of the Construction Facility**

*(Revise first paragraph and Item i) of Subsection 6, as follows.)*

*(1 July 2010)* ABS is to familiarize itself with the yard's production facilities, management processes, and safety procedures for consideration in complying with the requirements of Table 1 prior to any steelwork or construction taking place in the following circumstances:

- i)* Where ABS has no recent experience at the construction facilities (typically after a one year lapse) or when significant new infrastructure has been added

*(Following text remains unchanged.)*

## **7 Newbuilding Survey Planning**

*(Revise Paragraph 7.1, as follows.)*

### **7.1 Kick-off Meeting (1 July 2010)**

Prior to commencement of surveys for any newbuilding project, ABS is to discuss with the shipbuilder at a kick-off meeting the items listed in Table 1. The purpose of the meeting is to agree how the list of specific activities shown in Table 1 is to be addressed.

The meeting is to take into account the shipbuilder's construction facilities and vessel type including the list of proposed subcontractors. A record of the meeting is to be made, based upon the contents of the Table (the Table can be used as the record with comments made into the appropriate column).

If ABS has nominated a Surveyor for a specific newbuilding project, then the Surveyor is to attend the kick-off meeting. The builder is to be asked to agree to undertake ad hoc investigations during construction where areas of concern arise and to keep ABS advised of the progress of any investigation.

Whenever an investigation is undertaken, the builder is to be requested, in principle, to agree to suspend relevant construction activities if warranted by the severity of the problem.

*(Revise Paragraph 7.3, as follows.)*

### **7.3 Update of Meeting Record (1 July 2010)**

The shipyard shall be requested to advise of any changes to the activities agreed to at the kick off meeting and these are to be documented. (e.g., if the shipbuilder chooses to use or change subcontractors, or to incorporate any modifications necessitated by changes in production or inspection methods, Rules and regulations, structural modifications, or in the event where increased inspection requirements are deemed necessary as a result of a substantial non-conformance or otherwise).

*(Revise Paragraph 7.6, as follows.)*

### **7.6 Series Ship Production (1 July 2010)**

In the event of series ship production consideration may be given to waiving the requirement for a kickoff meeting for the second and subsequent ships provided any changes are documented as required in 7.1.

*(Revise Subsection 8, as follows.)*

## **8 Examination and Test Plan for Newbuilding Activities (1 July 2010)**

The shipbuilder is to provide plans of the items which are intended to be examined and tested. These plans need not be submitted for approval and examination at the time of the kick-off meeting. They are to include:

- i)* Proposals for the examination of completed steelwork (generally referred to as the block plan) and are to include details of joining blocks together at the pre-erection and erection stages or at other relevant stages
- ii)* Proposals for fit up examinations where necessary
- iii)* Proposals for testing of the structure (leak and hydrostatic) as well as for all watertight and weathertight closing appliances
- iv)* Proposals for nondestructive examination
- v)* Any other proposals specific to the vessel type or to the statutory requirements.

The plans and any modifications to them are to be submitted to the Surveyors in sufficient time to allow review before the relevant survey activity commences.

TABLE 1 (1 July 2010)

(Revise Item 7 of Table 1, as follows.)

Reference	Shipbuilding Function	Survey Requirements for Classification	Survey Method Required for Classification	ABS Rules/Guide <sup>(1)</sup> [IACS Reference <sup>(2, 3)</sup> ]	Statutory Requirements and Relevant Reference	Documentation Available to Classification Surveyor during Construction	Documentation for Ship Construction File	Specific Activities	ABS Proposals for the Project
7	(1 July 2010) Corrosion Protection Systems (e.g., coatings, cathodic protection, impressed current) except for coating system subject to PSPC	Salt water ballast tanks with boundaries formed by the hull envelope, and also bulk carrier hold internal surfaces, coamings and hatch covers shall have an efficient protective coating. Safety aspects of cathodic systems to be dealt with separately.	Review and report on builder's and manufacturer's documentation	3-2-18/5 of the Rules for Building and Classing Steel Vessels [UR Z8 and Z9, UI SC122, UR F1]	Reg. II-1/3-2 of SOLAS as amended	Manufacturer's and builder's specification	Corrosion protection specifications	.1 Verify that applied coatings are approved and review records of application	
								.2 Verify that adequate records have been maintained and copied to the ship file	
7 (cont'd) (1 July 2010)	Application Antifouling Systems		Review		AFS Convention	Painting Specification	Paint Specification and Mfg. Declaration	.1 Verify that adequate records have been maintained and copied to the ship construction file.	
7.1 (1 July 2010)	Application of Protective Coatings for Dedicated Seawater Ballast Tanks in all Types of Ships and Double-Side Skin Spaces of Bulk Carriers subject to PSPC	Monitor implementation of the coating inspection requirements.	Patrolling and Review	UI SC223, PR34	Reg. II-1/3-2 of SOLAS as amended;	Coating Standard	Coating Technical File	.1 Verify that applied coatings are approved and review records of application in accordance with Chapter 7 of Annex to MSC.215(82).	

(Add new Section 11, as follows.)

## **11 Initial Statutory Surveys at New Construction (1 July 2010)**

### **11.1 Scope\***

The scope of this section is to define the requirements for the initial statutory surveys at new construction as detailed in IMO Resolution A.997(25), which are not addressed in UR Z23 for the following as applicable:

- i) International Load Line Certificate (1966)
- ii) Cargo Ship Safety Equipment Certificate
- iii) International Oil Pollution Prevention Certificate

This section only covers the survey activities required and does not cover the technical interpretations of the statutory requirements or approval of plans, designs and manuals required by the Regulations.

This section does not cover the requirements for type approval or certification at vendor's works and for which evidence of acceptance is to be provided as indicated in the survey tables.

### **11.2 Definitions Used in the Survey Tables**

*Survey Item:* A description of the survey item considered

*Origin of the Requirement:* Applicable Statutory Regulation

*Approved Drawings/Documentation:* Indicates whether approved drawings/documentation is required

*Conformity Verification:* This verification may consist of an examination of the certificate, a check of the marks or, for products which require type approval, to verify conformity of the product with the approved prototype or certification with Flag Administration requirements

*Survey During Construction or Installation:* Indicates whether the witness by surveyor of construction and installation on board is required

*Tightness Testing:* Indicates whether tightness testing is required to be witnessed by the surveyor for survey item

*Survey After Construction or Installation:* Indicates whether the survey item is examined by the Surveyor after completion of its construction and installation on board

*Function Test:* Indicates whether a survey item or system is to be subjected to a functioning and/or performance test or trial in the presence of a Surveyor after installation on board

*Onboard Verification of Documentation:* Indicates whether the required documentation is to be verified on board by the surveyor

*Series of Vessels:* As defined in section 1-1-4/3.3 of the ABS Rules for Conditions of Classification

\* *Note:* This section is to be uniformly implemented on ships contracted for construction from 1st July 2010.

### **11.3 Application**

This applies to all vessels for which the statutory certificates listed in 11.1 are to be issued at new construction by ABS.

### **11.4 Interpretation of the Survey Requirements**

Interpretation of the survey requirements is given in Appendix 1

- Table 1 – Safety Equipment
- Table 2 – Load Line
- Table 3 – MARPOL Annex 1

Specific flag administration requirements, if any, supersede the requirements contained in this section.

**11.5 Qualification and Monitoring of Personnel**

The surveys required by this section shall be carried out by exclusive ABS surveyors. The surveyors are to be qualified to be able to carry out the tasks and procedures are to be in place to ensure that their activities are monitored.

**11.6 Inspection and test plan for new building activities**

The shipbuilder is to provide inspection and test plans for the items which are required to be surveyed and/or tested prior to the commencement of the surveys and/or test.

**11.7 Product and Type Approval Certificates**

The shipbuilder is to provide product and type approval certificates for the applicable items listed in Appendix 1 to be placed onboard.

**11.8 Proof of the Consistency of Surveys**

ABS is to be able to provide evidence, (e.g., through records, check lists, inspection and test records, etc.) that its surveyors have complied with the requirements of this section.

*(Add new Appendix 1, as follows, and renumber existing Appendix 1 as Appendix 2.)*

**APPENDIX 1 SURVEY TABLES FOR INITIAL STATUTORY SURVEY AT NEW CONSTRUCTION (1 JULY 2010)**

**1 Description**

COLUMN 1	A.997(25) Requirements	
COLUMN 2	Survey Item	A description of the survey item considered
COLUMN 3	Origin of the Requirement	Applicable Statutory Regulation
COLUMN 4	Correspondence with Approved Drawings/Documentation	Indicates whether approved drawings/documentation is required
COLUMN 5	Conformity Verification	This verification may consist of an examination of the certificate, a check of the marks or, for type approved products, to verify conformity of the product with the approved prototype or certification with National Requirements
COLUMN 6	Survey during construction or installation	Indicates whether the witness by surveyor of fabrication and installation on board is required
COLUMN 7	Tightness Testing	Indicates whether tightness testing is required to be witnessed by the surveyor for survey item
COLUMN 8	Survey after construction or installation	Indicates whether the survey item is examined by the Surveyor after completion of its installation on board and/or
COLUMN 9	Function Test	Indicates whether a system is to be subjected to a functioning and/or performance test or trial in the presence of a Surveyor after installation on board
COLUMN 10	Onboard Verification of documentation	Indicates whether the required documentation is to be verified on board by the surveyor

**TABLE 1**  
**Safety Equipment (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Inspections During Installation</i>	<i>Inspection After Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(EI) 1.1.3.1	Examining the fire pumps and fire main and the disposition of the hydrants, hoses and nozzles and the international shore connection and checking that each fire pump, including the emergency fire pump, can be operated separately so that two jets of water are produced simultaneously from different hydrants at any part of the ship whilst the required pressure is maintained in the fire main	Fire Pumps	(SOLAS 74/00 reg. II-2/10.2 FSSC chs.2 and 12)  (SOLAS 74/88 regs. II-2/4 and 19)	X	X		X		X
		Fire Mains		X				X	
		Hydrants		X			X		
		Hoses and Nozzles		X	X		X		
		International Shore Connection		X			X		
(EI) 1.1.3.2	Examining the provision and disposition of the fire extinguishers	Fire Extinguishers	(SOLAS 74/00 reg. II-2/10.3 FSSC ch.4) (SOLAS 74/88 reg. II-2/17)	X	X		X		
(EI) 1.1.3.3	Examining the fire fighters' outfits and emergency escape breathing devices – EEBDs	Fire Fighters' Outfits	(SOLAS 74/00 regs. II-2/10.10, 13.3.4 and 13.4.3 FSSC ch.3)	X	X		X		
		EEBDs – Emergency Escape Breathing Devices	(SOLAS 74/88 reg. II-2/17)	X	X		X		
(EI) 1.1.3.4	Checking the operational readiness and maintenance of fire-fighting systems	Operational Readiness and Maintenance of Fire-fighting System	(SOLAS 74/00 reg. II/14) (SOLAS 74/88 reg. II-2/21)					X	
(EI) 1.1.3.5	Examining the fixed fire-fighting system for the machinery, cargo, vehicle, special category and ro-ro spaces, as appropriate, and confirming that the installation tests have been satisfactorily completed and that its means of operation are clearly marked	Fixed Fire fighting systems	(SOLAS 74/00 regs. II-2/10.4, 10.5, 10.7 and 20.6.1, FSSC chs.5 to 7) (SOLAS 74/88 regs. II-2/7 and 53)	X	X		X	X	X

**TABLE 1 (continued)**  
**Safety Equipment (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Inspections During Installation</i>	<i>Inspection After Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(EI) 1.1.3.6	Examining the fire-extinguishing and special arrangements in the machinery spaces and confirming, as far as practicable and as appropriate, the operation of the remote means of control provided for the opening and closing of the skylights, the release of smoke, the closure of the funnel and ventilation openings, the closure of power operated and other doors, the stopping of ventilation and boiler forced and induced draft fans and the stopping of oil fuel and other pumps that discharge flammable liquids	Remote means of opening and closing of Skylights	(SOLAS 74/00 regs. II-2/5.2, 8.3, 9.5 and 10.5) (SOLAS 74/88 regs. II-2/7 and 11)	X					X
		Fire Dampers and Funnel opening		X	X				X
		Closure of power operated and other doors		X	X				X
		Remote stops for ventilation and boiler fans		X					X
		Remote stops for FO pumps		X					X
(EI) 1.1.3.7	Examining any fire detection and alarm system and any automatic sprinkler, fire detection and fire alarm system and confirming that installation tests have been satisfactorily completed	Fixed Fire Detection System	(SOLAS 74/00 regs. II-2/7.2, 7.3, 7.4, 7.5.1, 7.5.5, 19.3.3 and 20.4; FSSC ch.9) (SOLAS 74/88 regs. II-2/11, 13, 14, 53 and 54)	X	X		X		X
		Fire Alarm System		X	X		X		X
		Automatic Sprinkler		X	X		X		X
(EI) 1.1.3.8	Examining the fire-extinguishing system for spaces containing paint and/or flammable liquids and deep-fat cooking equipment in accommodation and service spaces and confirming that installation tests have been satisfactorily completed and that its means of operation are clearly marked	Spaces containing Paint and/or flammable liquids: Fire Extinguishing System	(SOLAS 74/00 regs. II-2/10.6.3 and 10.6.4; FSSC chs.4 to 7) (SOLAS 74/88 reg. II-2/18.7)	X			X		
		Deep-Fat Cooking Equipment in Accommodation: Fire Extinguishing System		X			X		
(EI) 1.1.3.9	Examining the arrangements for remote closing of valves for oil fuel, lubricating oil and other flammable oils and confirming, as far as practicable and as appropriate, the operation of the remote means of closing the valves on the tanks that contain oil fuel, lubricating oil and other flammable oils	Remote Closing Valves for: Oil Fuel	(SOLAS 74/00 reg. II-2/4.2.2.3.4) (SOLAS 74/88 reg. II-2/15.2.5)	X					X
		Remote Closing Valves for: Lubricating Oil		X					X
		Remote Closing Valves for: Other Flammable Oils		X					X



**TABLE 1 (continued)**  
**Safety Equipment (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Inspections During Installation</i>	<i>Inspection After Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(EI) 1.1.3.10	Examining the fire protection arrangements in cargo, vehicle and ro-ro spaces and confirming, as far as practicable and as appropriate, the operation of the means for closing the various openings	Fire Detection and Alarm System	(SOLAS 74/00 regs. II-2/10.7, 20.2.1, 20.3 and 20.6.2) (SOLAS 74/88 reg. II-2/53)	X	X		X		X
		Fixed Fire Extinguishing System		X				X	
		Structural Fire Protection		X	X		X		
		Precaution against ignition of flammable vapours in closed vehicle spaces, closed ro-ro spaces and special category spaces		X			X		X
(EI) 1.1.3.11	Examining, when appropriate, the special arrangements for carrying dangerous goods, including checking the electrical equipment and wiring, the ventilation, the provision of protective clothing and portable appliances and the testing of the water supply, bilge pumping and any water spray system	Water Supply	(SOLAS 74/00 reg. II-2/19 (except 19.3.8, 19.3.10 and 19.4) FSSC chs.9 and 10) (SOLAS 74/88 reg. II-2/54)	X					X
		Sources of Ignition		X	X		X		
		Detection System		X	X			X	
		Ventilation		X			X		
		Bilge system		X				X	
		Personnel Protection		X	X		X		
		Fire Extinguishers		X	X		X		
		Insulation of Machinery space boundaries		X	X		X		
Water Spray System	X	X	X	X		X			
(EI) 1.1.3.12	Checking the provision and disposition of the survival craft, where applicable, marine evacuation systems and rescue boats	Survival Craft Provision and Disposition	(SOLAS 74/88 regs. III/11 to 16 and 31; LSAC section 6.2)	X	X		X		
		Rescue Boat Provision and Disposition		X	X		X		
		Marine Evacuation Systems Provision and Disposition		X	X		X		
(EI) 1.1.3.13	Deployment of 50% of the MES after installation	Deployment of Marine Evacuation Systems	(LSAC paragraph 6.2.2.2)						X

**TABLE 1 (continued)**  
**Safety Equipment (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Inspections During Installation</i>	<i>Inspection After Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(EI) 1.1.3.14	Examining each survival craft, including its equipment	Survival Craft Design	(SOLAS 74/88 reg. III/31; LSAC sections 2.5, 3.1 to 3.3 and 4.1 to 4.9)		X		X		
		Survival Craft Engine			X			X	
		Survival Craft Equipment			X		X		
(EI) 1.1.3.15	Examining the embarkation arrangements for each survival craft and the testing of each launching appliance, including overload tests, tests to establish the lowering speed and the lowering of each survival craft to the water with the ship at its lightest sea-going draught, and, where applicable, launching underway at 5 knots, checking the recovery of each lifeboat	Survival Craft Launching and Recovery appliances	(SOLAS 74/00 regs. III/11, 12, 13, 16, 31 and 33; LSAC section 6.1)		X		X		X
		Survival Craft Embarkation Arrangements			X		X		X
(EI) 1.1.3.16	Examining the embarkation arrangements for each marine evacuation device, where applicable, and the launching arrangements, including inspection for lack of side shell opening between the embarkation station and waterline, review of distance to the propeller and other life-saving appliances and ensuring that the stowed position is protected from heavy weather damage, as much as practicable	MES Launching and Recovery appliances	(SOLAS 74/00 reg. III/15; LSAC section 6.2)	X	X		X		X
		MES Embarkation Arrangements		X			X		
(EI) 1.1.3.17	Examining each rescue boat, including its equipment	Rescue Boat Design	(SOLAS 74/88 reg. III/31; LSAC sections 2.5, 5.1 and 6.1)		X		X		
		Rescue Boat Engine			X		X		X
		Rescue Boat Equipment			X		X		
(EI) 1.1.3.18	Examining the embarkation and recovery arrangements for each rescue boat and testing each launching and recovery appliance, including overload tests, tests to establish the lowering and recovery speeds and ensuring that each rescue boat can be lowered to the water and recovered with the ship at its lightest sea-going draught, launching underway at 5 knots	Rescue Boat Launching and Recovery appliances and Arrangements	(SOLAS 74/88 regs. III/14, 17 and 31; LSAC section 6.1)		X		X		X
(EI) 1.1.3.19	Testing that the engine of the rescue boat(s) and of each lifeboat, when so fitted, start satisfactorily and operate both ahead and astern	Test of engines of lifeboat and Rescue Boat	(SOLAS 74/00 reg. III/19)						X
(EI) 1.1.3.20	Confirming that there are posters or signs in the vicinity of survival craft and their launching stations and containers, brackets, racks and other similar stowage locations for life-saving equipment	Posters or Signs	(SOLAS 74/88 regs. III/9 and 20)				X		

**TABLE 1 (continued)**  
**Safety Equipment (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Inspections During Installation</i>	<i>Inspection After Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(EI) 1.1.3.21	Examining the provision and stowage and checking the operation of portable on board communications equipment, if provided, and two-way VHF radiotelephone apparatus and radar transponders	Two-way VHF radiotelephone apparatus	(SOLAS 74/88 regs. II-2/12.2 and III/6)		X		X		X
		Radar Transponders			X		X		X
(EI) 1.1.3.22	Examining the provision and stowage of the distress flares and the line-throwing appliance, checking the provision and operation of fixed on board communications equipment, if provided, and testing the means of operation of the general alarm system	Distress Flares and Line-Throwing Appliances	(SOLAS 74/00 regs. III/6 and 18; LSAC sections 3.1, 7.1 and 7.2)		X		X		
		On board Communications equipment			X		X		X
		General Alarm System		X			X		X
(EI) 1.1.3.23	Examining the provision, disposition and stowage of the lifebuoys, including those fitted with self-igniting lights, self-activating smoke signals and buoyant lines, lifejackets, and immersion suits	Lifebuoys	(SOLAS 74/00 regs. III/7 and 32 to 37; LSAC sections 2.1, 2.5 and 3.3)	X	X		X		
		Lifebuoys fitted with self-igniting lights		X	X		X		
		Lifebuoys fitted with self-activating smoke signals		X	X		X		
		Lifebuoys fitted with buoyant lines		X	X		X		
		Lifejackets		X	X		X		
		Immersion suits		X	X		X		
		Anti-exposure suits		X	X		X		

**TABLE 1 (continued)**  
**Safety Equipment (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Inspections During Installation</i>	<i>Inspection After Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(EI) 1.1.3.24	Checking the lighting of the muster and embarkation stations and the alleyways, stairways and exits giving access to the muster and embarkation stations, including when supplied from the emergency source of power	Muster and Embarkation Station Lighting	(SOLAS 74/88 regs. II-1/43 and III/11)				X		X
		Alleyways and Stairways Lighting					X		X
		Exits giving Access to the Muster and Embarkation Stations Lighting					X		X
		Muster and Embarkation Station Lighting from Emergency Source of Power					X		X
		Alleyways and Stairways Lighting from Emergency Source of Power					X		X
		Exits giving Access to the Muster and Embarkation Stations Lighting from Emergency Source of Power					X		X
(EI) 1.1.3.25	Examining the provision and positioning and checking the operation of, as appropriate, the navigation lights, shapes and sound signalling equipment	Navigation Lights	(International Regulations for Preventing Collisions at Sea (COLREG) in force, regs. 20 to 24, 27 to 30 and 33)	X	X		X		X
		Shapes and Sounds signalling equipment			X		X		X
(EI) 1.1.3.26	Checking that the minimum safe distances from the steering and standard magnetic compasses for all electrical equipment are complied with	Bridge	(SOLAS 74/00 regs. V/17 and 19)				X		
(EI) 1.1.3.27	Checking the electromagnetic compatibility of electrical and electronic equipment on or in the vicinity of the bridge	Bridge	(SOLAS 74/00 reg. V/17)		X		X		

**TABLE 1 (continued)**  
**Safety Equipment (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Inspections During Installation</i>	<i>Inspection After Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(EI) 1.1.3.28	Checking, as appropriate, the provision and operation of the following ship borne navigational systems equipment								
(EI) 1.1.3.28 .1	The magnetic compass, including examining the sighting, movement, illumination and a pylon or compass bearing device	Navigation Equipment: Magnetic Compass	(SOLAS 74/00 reg. V/19)		X		X		
		Navigation Equipment: Pylon or Compass Bearing Device			X				X
(EI) 1.1.3.28 .2	Nautical charts and nautical publications necessary for the intended voyage are available and have been updated, and, where electronic systems are used, the electronic charts have been updated and the required back-up system is provided and updated	Navigation Equipment: ECDIS including back-up arrangements	(SOLAS 74/00 reg. V/19)		X				X
		Nautical Charts and Nautical Publications						X	
(EI) 1.1.3.28 .3	Global navigation satellite system receiver or terrestrial radio navigation system	Navigation Equipment: GNSS receiver			X				X
(EI) 1.1.3.28 .4	Sound reception system, when bridge is totally enclosed	Navigation Equipment: Sound Reception System			X				X
(EI) 1.1.3.28 .5	Means of communication to emergency steering position, where provided	Navigation Equipment: Means of communication with Emergency Steering Position		X	X				X
(EI) 1.1.3.28 .6	Spare magnetic compass	Navigation Equipment: Spare Magnetic Compass			X		X		
(EI) 1.1.3.28 .7	Daylight signalling lamp	Navigation Equipment: Daylight Signalling Lamp			X				X
(EI) 1.1.3.28 .8	Echo sounding device	Navigation Equipment: Echo-sounding Device			X				X

**TABLE 1 (continued)**  
**Safety Equipment (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Inspections During Installation</i>	<i>Inspection After Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(EI) 1.1.3.28 .9	Radar reflector	Navigation Equipment: Radar Reflector			X		X		
(EI) 1.1.3.28 .10	Radar(s), including examining the waveguide and cable runs for routing and protection and the display unit confirming lighting, correct operation of all controls, and functions	Navigation Equipment: Radar Installations			X		X		X
(EI) 1.1.3.28 .11	Electronic plotting aid, automatic tracking aid or automatic radar plotting aid as appropriate, using the appropriate test facilities	Navigation Equipment: Electronic Plotting Aid			X				X
		Navigation Equipment: Automatic Tracking aid(s) or Automatic Radar Plotting Aid			X				X
(EI) 1.1.3.28 .12	Speed and distance measuring devices "through the water" and "over the ground"	Navigation Equipment: Speed and Distance measuring Device			X				X
(EI) 1.1.3.28 .13	Transmitting heading device providing heading information to radar, plotting aids and automatic identification system equipment and voyage data recorder	Navigation Equipment: Transmitting Heading Device			X				X
(EI) 1.1.3.28 .14	Automatic identification system	Navigation Equipment: AIS Automatic Identification System			X				X
(EI) 1.1.3.28 .15	Gyrocompass, including examining the alignment of the master and all repeaters	Navigation Equipment: Gyro Compass			X				X
		Navigation Equipment: Gyro Compass Repeater			X				X
(EI) 1.1.3.28 .16	Rudder angle indicator	Navigation Equipment: Rudder Angle Indicator			X				X

**TABLE 1 (continued)**  
**Safety Equipment (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Inspections During Installation</i>	<i>Inspection After Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(EI) 1.1.3.28 .17	Propeller rate of revolution indicator	Navigation Equipment: Propeller rate of Revolution Indicator			X				X
(EI) 1.1.3.28 .18	Propeller, operational mode, thrust, and pitch indicator	Navigation Equipment: Variable-Pitch propeller pitch and operational mode indicator			X				X
(EI) 1.1.3.28 .19	Rate-of-turn indicator	Navigation Equipment: Rate of Turn Indicator			X				X
(EI) 1.1.3.28 .20	Heading or track control system	Navigation Equipment: Heading or Track Control System			X				X
(EI) 1.1.3.29	Checking for the provision and operation of the voyage data recorder	VDR – Voyage Data Recorder	(SOLAS 74/00 reg. V/20)		X				X
(EI) 1.1.3.31	Checking navigation bridge visibility	Navigation Bridge Visibility	(SOLAS 74/00 reg. V/22)	X					
(EI) 1.1.3.32	Checking the provision and, as appropriate, the deployment or operation of the pilot ladders and hoists/pilot transfer arrangements	Pilot ladders and hoists/pilot transfer arrangements	(SOLAS 74/00 reg. V/23)	X	X		X		X
(EI) 1.1.4.1	Checking the deck foam system, including the supplies of foam concentrate, and testing that the minimum number of jets of water at the required pressure in the fire main is obtained (see (EI) 1.1.3.1) when the system is in operation	Deck Foam System: Foam Tanks	(SOLAS 74/00 reg. II-2/10.8; FSSC ch.15) (SOLAS 74/88 reg. II-2/61)	X			X		
		Deck Foam System: Monitors			X		X		X
		Deck Foam System: Applicators			X		X		X
		Deck Foam System: Foam Concentrates			X				
(EI) 1.1.4.2	Examining the inert gas system and in particular:	Cargo Tank Protection: Venting	(SOLAS 74/00 reg. II-2/4.5.5; FSSC ch.15) (SOLAS 74/88 reg. II-2/62)	X	X				

**TABLE 1 (continued)**  
**Safety Equipment (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Inspections During Installation</i>	<i>Inspection After Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(EI) 1.1.4.2. 1	Examining externally for any sign of gas or effluent leakage	Signs of Gas or Effluent Leakage					X		X
(EI) 1.1.4.2. 2	Confirming the proper operation of both inert gas blowers	Inert Gas Blowers							X
(EI) 1.1.4.2. 3	Observing the operation of the scrubber-room ventilation system	Scrubber Room Ventilation							X
(EI) 1.1.4.2. 4	Checking the deck water seal for automatic filling and draining	Deck Water Seal					X		X
(EI) 1.1.4.2. 5	Examining the operation of all remotely operated or automatically controlled valves and, in particular, the flue gas isolating valves	Remote or Automatic Control Valves							X
		Flue Gas Isolating Valve					X		X
(EI) 1.1.4.2. 6	Observing a test of the interlocking feature of soot blowers	Interlocking of soot Blowers							X
(EI) 1.1.4.2. 7	Observing that the gas pressure-regulating valve automatically closes when the inert gas blowers are secured	Gas Pressure-Regulating Valve							X
(EI) 1.1.4.2. 8	Checking, as far as practicable, the following alarms and safety devices of the inert gas system using simulated conditions where necessary:								X
(EI) 1.1.4.2. 8.1	High oxygen content of gas in the inert gas main	Simulation Test for Alarms and Safety Devices							X



**TABLE 1 (continued)**  
**Safety Equipment (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Inspections During Installation</i>	<i>Inspection After Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(EI) 1.1.4.2. 8.2	Low gas pressure in the inert gas main	Simulation Test for Alarms and Safety Devices							X
(EI) 1.1.4.2. 8.3	Low pressure in the supply to the deck water seal	Simulation Test for Alarms and Safety Devices							X
(EI) 1.1.4.2. 8.4	High temperature of gas in the inert gas main	Simulation Test for Alarms and Safety Devices							X
(EI) 1.1.4.2. 8.5	Low water pressure or low water-flow rate	Simulation Test for Alarms and Safety Devices							X
(EI) 1.1.4.2. 8.6	Accuracy of portable and fixed oxygen-measuring equipment by means of calibration gas	Simulation Test for Alarms and Safety Devices			X				X
(EI) 1.1.4.2. 8.7	High water level in the scrubber	Simulation Test for Alarms and Safety Devices							X
(EI) 1.1.4.2. 8.8	Failure of the inert gas blowers	Simulation Test for Alarms and Safety Devices							X
(EI) 1.1.4.2. 8.9	Failure of the power supply to the automatic control system for the gas regulating valve and to the instrumentation for continuous indication and permanent recording of pressure and oxygen content in the inert gas main	Simulation Test for Alarms and Safety Devices							X
(EI) 1.1.4.2. 8.10	High pressure of gas in the inert gas main	Simulation Test for Alarms and Safety Devices							X

**TABLE 1 (continued)**  
**Safety Equipment (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Inspections During Installation</i>	<i>Inspection After Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(EI) 1.1.4.2.9	Checking the proper operation of the inert gas system on completion of the checks listed above	IGS Operating Procedure						X	
(EI) 1.1.4.3	Examining the fixed fire-fighting system for the cargo pump room, confirming that the installation tests have been satisfactorily completed and that its means of operation are clearly marked and, when appropriate, checking the operation of the remote means for closing the various openings	Cargo Pump Room Fire Extinguishing	(SOLAS 74/00 reg. II-2/10.9; FSSC chs.5, 6, 7 and 8, as applicable)	X			X		
		Cargo Pump Room Means of Closing Various Opening					X		X
(EI) 1.1.4.4	Examining the protection of the cargo pump-rooms and confirming that the installation tests have been satisfactorily completed	Temperature sensing devices	(SOLAS 74/00 reg. II-2/4.5.10) (SOLAS 74/88 regs. II-2/55 to 58)	X	X				X
		Interlock between lighting and ventilation							X
		Monitoring of hydrocarbon gas			X				X
		Bilge monitoring							X
(EI) 1.1.5.1	Confirming that the fire control plans are permanently exhibited or, alternatively, emergency booklets have been provided and that a duplicate of the plans or the emergency booklet are available in a prominently marked enclosure external to the ship's deckhouse	Required Documentations	(SOLAS 74/00 reg. II-2/15.2.4) (SOLAS 74/88 reg. II-2/20)					X	
(EI) 1.1.5.2	Confirming that maintenance plans have been provided	Required Documentations	(SOLAS 74/00 regs. II-2/14.2.2 and 14.4)					X	
(EI) 1.1.5.3	Confirming that the training manuals and the fire safety operational booklets have been provided	Required Documentations	(SOLAS 74/00 regs. II-2/15.2.3, 16.2 and 16.3)					X	
(EI) 1.1.5.4	Confirming, where appropriate, that the ship is provided with a document indicating compliance with the special requirement for carrying dangerous goods	Required Documentations	(SOLAS 74/00 reg. II-2/19.4) (SOLAS 74/88 reg. II-2/54(3))					X	

**TABLE 1 (continued)**  
**Safety Equipment (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Inspections During Installation</i>	<i>Inspection After Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(EI) 1.1.5.5	Confirming that emergency instructions are available for each person on board, that the muster list is posted in conspicuous places and they are in a language understood by the persons on board	Required Documentations	(SOLAS 74/00 regs. III/8 and 37)					X	
(EI) 1.1.5.6	Confirming that the training manual and training aids for the lifesaving appliances have been provided	Required Documentations	(SOLAS 74/00 reg. III/35)					X	
(EI) 1.1.5.7	Confirming that the instructions for on board maintenance of the life-saving appliances have been provided	Required Documentations	(SOLAS 74/88 reg. III/36)					X	
(EI) 1.1.5.8	Confirming that a table or curve of residual deviations for the magnetic compass has been provided, and that a diagram of the radar installations shadow sectors is displayed	Required Documentations	(SOLAS 74/00 reg. V/19)					X	
(EI) 1.1.5.9	Checking that operational and, where appropriate, maintenance manuals for all navigational equipment are provided	Required Documentations	(SOLAS 74/00 reg. V/16)					X	
(EI) 1.1.5.10	Checking that the charts and nautical publications necessary for the intended voyage are available and have been updated	Required Documentations	(SOLAS 74/88 reg. V/27)					X	
(EI) 1.1.5.11	Checking that the International Code of Signals and a copy of Volume III of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual have been provided	Required Document	(SOLAS 74/00/02, reg. V/21)					X	
(EI) 1.1.5.12	Checking that arrangements are provided to maintain records of navigational activities and daily reporting	Required Documents	(SOLAS 74/00/03, reg. V/28)					X	
(EI) 1.1.5.13	Checking that the life-saving signals to be used by ships, aircraft or persons in distress are available	Required Documents	(SOLAS 74/00, reg. V/29)					X	
(EI) 1.1.5.14	Confirming that continuous synopsis record is provided	Required Documents	(SOLAS 74/02, reg. XI-1/5)					X	
(EI) 1.1.6.1	Confirming, when appropriate, that the instruction manuals for the inert gas system have been provided	Required Documents	(FSSC ch.15 paragraph 2.4.4) (SOLAS 74/88, reg. II-2/62.21)					X	

**TABLE 2**  
**Load Line (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Survey During Construction or Installation</i>	<i>Tightness Test</i>	<i>Survey After Construction or Installation</i>	<i>Function Test</i>	<i>On Board Verification of Documentation</i>
(LI) 1.1.2	For the load line the survey during construction and after installation should consist of:									
(LI) 1.1.2.2	Confirming that the deck line and load line mark are properly positioned	Positioning of Deck Line and Load Line Mark	(LLC 66/88 regs. 4 to 9)	X				X		
(LI) 1.1.2.3	Witnessing the inclining experiment or lightweight survey	Inclining Experiment	(LLC 66/88/03 reg. 10)	X				X		
(LI) 1.1.2.4	Examining the superstructure end bulkheads and the openings therein	Superstructure End Bulkheads	(LLC 66/88 regs. 11 and 12)							
		Superstructure Openings		X	X		X	X		
(LI) 1.1.2.5	Examining the means of securing the weather tightness of cargo hatchways, other hatchways and other openings on the freeboard and superstructure decks	Freeboard Deck – Means of Securing the weather tightness of Cargo Hatchways	(LLC 66/88 regs. 13 to 18)	X		X	X		X	
		Freeboard Deck – Means of Securing the weather tightness of Other Hatchways		X			X		X	
		Freeboard Deck – Means of Securing the weather tightness of Other Openings		X			X		X	
		Superstructure Deck – Means of Securing the weather tightness of Cargo Hatchways		X		X	X		X	
		Superstructure Deck – Means of Securing the weather tightness of Other Hatchways		X			X		X	
		Superstructure Deck – Means of Securing the weather tightness of Other Openings		X			X		X	

**TABLE 2 (continued)**  
**Load Line (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Survey During Construction or Installation</i>	<i>Tightness Test</i>	<i>Survey After Construction or Installation</i>	<i>Function Test</i>	<i>On Board Verification of Documentation</i>
(LI) 1.1.2.6	Examining the ventilators and air pipes, including their coamings and closing appliances	Ventilators and air pipes including their coamings and closing appliances	(LLC 66/88 regs. 19 and 20)	X	X			X		
(LI) 1.1.2.7	Examining the watertight integrity of the closures to any openings in the ship's side below the freeboard deck	Closures to any openings in the ship's side below the freeboard deck	(LLC 66/88 reg. 21)	X	X		X	X	X	
(LI) 1.1.2.8	Examining the scuppers, inlets and discharges	Scuppers, Inlets and Discharger	(LLC 66/88 reg. 22)	X	X			X		
(LI) 1.1.2.9	Examining the garbage chutes	Garbage chute	(LLC 66/88/03, reg. 22-1)	X		X	X			
(LI) 1.1.2.10	Examining the spurling pipes and cable lockers	Spurling Pipe	(LLC 66/88/03, reg. 22-2)	X		X	X			
		Cable Locker		X		X	X			
(LI) 1.1.2.11	Examining the side scuttles and deadlights	Side Scuttles and Deadlights	(LLC 66/88 reg. 23)	X	X		X	X		
(LI) 1.1.2.12	Examining the bulwarks including the provision of freeing ports, special attention being given to any freeing ports fitted with shutters	Bulwarks	(LLC 66/88/03 reg. 24, 25)	X				X		
		Freeing Ports		X				X		
		Freeing Ports fitted with shutters		X				X	X	
(LI) 1.1.2.13	Examining the guardrails, gangways, walkways and other means provided for the protection of the crew and means for safe passage of crew	Guardrails	(LLC 66/88/03 reg. 25, 25-1)	X				X		
		Gangways								
		Walkways								
		Other means								
(LI) 1.1.2.14	Special requirements for ships permitted to sail with type "A" or type "B-minus" freeboards	Machinery Casings	(LLC 66/88/03 reg. 26, 27)	X			X	X		
		Gangway and Access								
		Hatchways								
		Freeing arrangements								

**TABLE 2 (continued)**  
**Load Line (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Survey During Construction or Installation</i>	<i>Tightness Test</i>	<i>Survey After Construction or Installation</i>	<i>Function Test</i>	<i>On Board Verification of Documentation</i>
(LI) 1.1.2.15	Checking, when applicable, of the fittings and appliances for timber deck cargoes	Uprights	(LLC 66/88 regs. 42 to 45)	X				X		
		Lashings		X					X	
		Stability		X					X	
		Protection of Crew		X				X		
(LI) 1.1.3.1	Checking that the loading and ballasting information has been supplied to the master	Loading and Stability Manual	(LLC 66/88 reg. 10)	X						X

**TABLE 3**  
**MARPOL Annex 1 (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Survey During Construction or Installation</i>	<i>Survey After Construction or Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
<b>Requirements for All Ships</b>									
(OI) 1.1.3.1	Confirming the satisfactory installation and operation of, as appropriate, oil filtering equipment and when appropriate the operation of the automatic means provided to stop the discharge of effluent and the satisfactory operation of the alarm - or other installation	oil filtering equipment Automatic Stopping Device Alarm	MARPOL 90/04 Annex I regs. 14 and 15	X	X			X	X
(OI) 1.1.3.2	Confirming, when applicable, that the oil content meter and its recording device are operable and that there is a sufficient supply of consumables for the recording device on board	Oil Content Meter	MARPOL 90/04 Annex I regs. 14 and 15		X	X			X
		Recording Device			X	X			X
		Consumables					X		
(OI) 1.1.3.3	testing, where fitted, the automatic stopping device required for discharges in Special Areas	Stopping Device	MARPOL 90/04 Annex I reg. 15						X
(OI) 1.1.3.4	confirming the segregation of the oil fuel and water ballast system and the non-carriage of oil in forepeak tanks	Segregation of WB and Oil Carriage of Oil in FP Tank	MARPOL 90/04 Annex I reg. 16	X		X			
(OI) 1.1.3.5	Confirming that the oily residue (sludge) tank and its discharge arrangements are satisfactory and, when the size of the sludge tank is approved on the basis of such installations, confirming the satisfactory operation of homogenizers, sludge incinerators or other recognised means for the control of sludge	Oily residue (sludge) tank	MARPOL 90/04 Annex I reg. 12	X			X		
		Discharge Arrangement		X			X		
		Approved Sludge Tank's Size		X			X		
		Incinerators/Homogenisers		X	X		X		X
(OI) 1.1.3.6	Confirming the provision of the standard discharge connection	Standard Discharge Connection	MARPOL 90/04 Annex I reg. 13				X		
(OI) 1.1.3.7	Confirming oil fuel tank protection arrangements	Tank Arrangements	MARPOL 90/04 Annex I reg. 12A	X		X			

**TABLE 3 (continued)**  
**MARPOL Annex 1 (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Survey During Construction or Installation</i>	<i>Survey After Construction or Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
<b>Additional Requirements for Oil Tankers</b>									
(OI) 1.1.4.1	Confirming that the arrangements of slop tanks or cargo tanks designated as slop tanks and associated piping systems are satisfactory	Slop Tanks Cargo Tanks designated as slop tanks	MARPOL 90/04 Annex I regs. 29 and 34	X X			X X		
(OI) 1.1.4.2	Confirming the satisfactory installation and operation of the oil discharge monitoring and control system, including any audible or visual alarms, the automatic and manual means to stop the discharge of effluent, the starting interlock and the accuracy of the flow meter and the applicable resolution's requirements for installation survey	Discharge Monitoring and Control System	MARPOL 90/04 Annex I regs. 31 and 34	X	X		X		X
		Audible and Visual Alarms					X		X
		Automatic and manual means to stop discharge of Effluent					X		X
		Starting Interlock					X		X
	Accuracy Flow Meter					X		X	
(OI) 1.1.4.3	Confirming that the oil content meter and its recording device are operable and that there is a sufficient supply of consumables for the recording device on board	Oil Content meter and recording device	MARPOL 90/04 Annex I regs. 31 and 34		X		X		X
(OI) 1.1.4.4	Confirming that the approved oil/water interface detectors are on board and are operational	Oil/water interface detectors	MARPOL 90/04 Annex I reg. 32		X		X		
(OI) 1.1.4.5	Confirming that the arrangements of pumps, pipes and valves are in accordance with the requirements for segregated ballast systems and that there are no cross-connections between the cargo and segregated ballast systems	Segregated Ballast Tanks: Pumps, Piping and Valves	MARPOL 90/04 Annex I reg. 18	X			X		
(OI) 1.1.4.6	Where a portable spool piece is provided for the emergency discharge of segregated ballast by connecting the segregated ballast system to a cargo pump, confirming that non-return valves are fitted on the segregated ballast connections and that the spool piece is mounted in a conspicuous position in the pump room with a permanent notice restricting its use	Segregated Ballast Tanks: Emergency Discharge	MARPOL 90/04 Annex I reg. 18	X			X		



**TABLE 3 (continued)**  
**MARPOL Annex 1 (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Survey During Construction or Installation</i>	<i>Survey After Construction or Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(OI) 1.1.4.7	Testing ballast pipelines that pass through cargo tanks and those cargo pipelines that pass through ballast tanks to ensure there is no cross contamination	Pipelines	MARPOL 90/04 Annex I reg. 18	X			X		
(OI) 1.1.4.8	Confirming that the crude oil washing system is installed in accordance with the approved plans and, in particular:		MARPOL 90/04 Annex I regs. 18 & 33	X					
(OI) 1.1.4.8.1	Examining crude oil washing piping, pumps, valves and deck mounted washing machines for signs of leakage and to check that all anchoring devices for crude oil washing piping are intact and secure;	Piping, Pumps Valves & Anchoring Devices					X		
(OI) 1.1.4.8.2	Carrying out pressure testing of the crude oil washing system to 1.5 times the working pressure;	Pressure Test					X		
(OI) 1.1.4.8.3	Confirming in those cases where drive units are not integral with the tank washing machines, that the number of operational drive units specified in the Manual are on board;	Operational Drive Units					X		
(OI) 1.1.4.8.4	Checking that, when fitted, steam heaters for water washing can be properly isolated during crude oil washing operations, either by double shut-off valves or by clearly identifiable blanks;	Steam Heaters					X		X
(OI) 1.1.4.8.5	Checking that the prescribed means of communications between the deck watch keeper and the cargo control position is operational;	Means of Communication					X		X
(OI) 1.1.4.8.6	Confirming that an overpressure relief device (or other approved arrangement) is fitted to the pumps supplying the crude oil washing system;	Overpressure Relief Device					X		X
(OI) 1.1.4.8.7	Verifying that flexible hoses for supply of oil to the washing machines on combination carriers are of an approved type, are properly stored and are in good condition;	Flexible Hoses			X		X		

**TABLE 3 (continued)**  
**MARPOL Annex 1 (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Survey During Construction or Installation</i>	<i>Survey After Construction or Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(OI) 1.1.4.9	Verifying the effectiveness of the crude oil washing system and, in particular:	COW-Crude Oil Washing: Effectiveness	MARPOL 90/04 Annex I reg. 33						
(OI) 1.1.4.9.1	Checking that the crude oil washing machines are operable and to observe the proper operation of the washing machines by means of the movement indicators and/or sound patterns or other approved methods;						X		X
(OI) 1.1.4.9.2	Checking the effectiveness of the stripping system in appropriate cargo tanks by observing the monitoring equipment and by hand-dipping or other approved means;								X
(OI) 1.1.4.9.3	Verifying by internal tank inspection after crude oil washing that the installation and operational procedures laid down in the Operations and Equipment Manual are satisfactory;								X
(OI) 1.1.4.10	Confirming that, where there is a crude oil washing system, an inert gas system has been installed and tested in accordance with the requirements of SOLAS 74/88/2000 (see (EI) 1.1.4.2 in Annex 1);	COW-Crude Oil Washing: General			X		X		X
(OI) 1.1.4.11	Confirming, as appropriate, that the arrangements for the prevention of oil pollution in the event of collision or stranding are in accordance with the approved plans	Pollution due to Collision or Stranding	MARPOL 90/04 Annex I regs. 19 to 22	X			X		
(OI) 1.1.4.12	Confirming that the piping systems associated with the discharge of dirty ballast water or oil-contaminated water are satisfactory	Pumping, Piping and Discharge	MARPOL 90/04 Annex I reg. 30	X			X		
(OI) 1.1.4.13	Confirming that the observation and discharge control positions for visually observing the discharge of oil-contaminated water, including the testing of the communication system between the two positions are satisfactory	Observation and Discharge Control	MARPOL 90/04 Annex I reg. 30				X		X

**TABLE 3 (continued)**  
**MARPOL Annex 1 (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Survey During Construction or Installation</i>	<i>Survey After Construction or Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(OI) 1.1.4.14	Confirming that the means of draining cargo pumps and cargo lines, including the provision of a stripping device and the connections for pumping to the slop or cargo tanks or ashore are satisfactory	Means of Draining and Stripping	MARPOL 90/04 Annex I reg. 30	X			X		
		Means for pumping ashore/slop/ cargo tanks		X			X		
(OI) 1.1.4.16	Confirming that closing devices installed in the cargo transfer system and cargo piping, as appropriate, are satisfactory	Closing arrangements	MARPOL 90/04 Annex I regs. 23 & 26						X
(OI) 1.1.4.17	Confirming that the subdivision and stability arrangements, in addition to the provision of (OI) 1.1.4.16, to prevent progressive flooding are satisfactory	Stability Manual Tank Arrangement	MARPOL 90/04 Annex I regs. 23 & 26	X			X	X	
(OI) 1.1.4.18	Confirming the arrangements for cargo pump-room bottom protection (double bottom where required)	Tank Arrangements	MARPOL 90/04 Annex I reg. 22	X			X		
<b>Requirements for All Ships</b>									
(OI) 1.1.5.1	Confirming that certificates for type approval for the oil filtering equipment and oil content meters are available	Type Approval Certificates	MARPOL 90/04 Annex I reg. 14		X			X	
(OI) 1.1.5.2	Confirming that the Oil Record Book (Part I) has been provided	Oil Record Book	MARPOL 90/04 Annex I reg. 17					X	
(OI) 1.1.5.3	Confirming that the shipboard oil pollution emergency plan or, in the case of a chemical/product tanker, a shipboard marine pollution emergency plan has been provided	SOPEP/SMPEP	MARPOL 90/04 Annex I reg. 37	X				X	
(OI) 1.1.5.4	Confirming, as appropriate, that the Operating and Maintenance manuals for the 15 ppm bilge separator and 15 ppm bilge alarm are available	Operations Manual						X	
<b>Additional Requirements for Oil Tankers</b>									
(OI) 1.1.6.2	confirming that, if applicable, a Crude Oil Washing Operations and Equipment Manual has been provided	COW-Crude Oil Washing: Operations & Equipment Manual	MARPOL 90/04 Annex I reg. 35	X				X	

**TABLE 3 (continued)**  
**MARPOL Annex 1 (1 July 2010)**

	<i>A.997(25) Requirement</i>	<i>Survey Item</i>	<i>Origin of the Requirement</i>	<i>Correspondence with Approved Drawings/ Documentation</i>	<i>Conformity Verification</i>	<i>Survey During Construction or Installation</i>	<i>Survey After Construction or Installation</i>	<i>Onboard Verification of Documentation</i>	<i>Function Test</i>
(OI) 1.1.6.3	Confirming that an operations manual for the oil discharge monitoring and control system has been provided together with any other documentation requested by the applicable resolution	ODM Operation Manual	MARPOL 90/04 Annex I reg. 31	X				X	
(OI) 1.1.6.4	Confirming that certificates for type approval for the oil content meters, oil discharge monitoring and control system and oil/water interface detectors are available	Type Approval Certificates	MARPOL 90/04 Annex I regs. 31 and 32					X	
(OI) 1.1.6.5	Confirming that an Oil Record Book (Part II) has been provided	Oil Record Book	MARPOL 90/04 Annex I reg. 36					X	
(OI) 1.1.6.7	Confirming that the information and data concerning the loading and damage stability has been provided	Loading and Damage Stability Data	MARPOL 90/04 Annex I reg. 28	X				X	
(OI) 1.1.6.8	Confirming that the shipboard oil pollution emergency plan or in the case of a chemical/product tanker a shipboard marine pollution emergency plan has been provided	SOPEP/SMPEP	MARPOL 90/04 Annex I reg. 37	X				X	
(OI) 1.1.6.9	Confirming, for oil tankers of 5,000 deadweight and above delivered on/after 1 February 2002, that the intact stability has been approved	Stability Information	MARPOL 90/04 Annex I reg. 27	X				X	
(OI) 1.1.6.10	Confirming, for oil tankers of 5,000 deadweight and above, that arrangements are in place to provide prompt access to shore-based damage stability and residual structural strength computerized calculation programmes	Shore based emergency support arrangements	MARPOL 90/04 Annex I reg. 37.4					X	