



CHINA CLASSIFICATION SOCIETY

**CCS Rule Change Notice For:  
Rules for Construction and Equipment of Ships Carrying  
Liquefied Gases in Bulk**

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### CHAPTER A2 CLASSIFICATION AND SURVEYS

#### Section 3 SURVEYS

##### A2.3.2 Surveys after construction

###### A2.3.2.1 General requirements

(1) The surveys after construction are, in addition to complying with the requirements of the Rules, to be carried out in compliance with the applicable requirements of Sections 1 to 4, Section 6 and Section 16 of Chapter 5 of PART ONE of CCS Rules for Classification of Sea-Going Steel Ships.

(2) The surveys of the outside of the ship's bottom and related items, machinery surveys, electrical installations surveys, screwshaft and tubeshaft surveys, and periodical surveys of boilers are to be carried out in compliance with Sections 9, 10, 11, 12 and 13 of Chapter 5 of PART ONE of CCS Rules for Classification of Sea-Going Steel Ships.

###### A2.3.2.2 Annual surveys

(1) The applicable requirements of 5.4.2, 5.6.2, 5.9.2, 5.10.2 and 5.16.2 of Chapter 5 of PART ONE of CCS Rules for Classification of Sea-Going Steel Ships are to be complied with.

~~(2) To confirm, when appropriate, that the requisite arrangements to regain steering capability in the event of the prescribed single failure are being maintained.~~

~~(3)~~ (2) To confirm that any special arrangements to survive condition of damage are in order.

~~(4)~~ (3) To confirm that wheelhouse doors and windows, sidescuttles and windows in superstructure and deckhouse ends facing the cargo area are in a satisfactory condition.

~~(5)~~ (4) To examine the cargo pump rooms and cargo compressor rooms.

~~(6)~~ (5) To confirm that the manually operated emergency shutdown system together with the automatic shutdown of the cargo pumps and compressors are satisfactory.

~~(7)~~ (6) To examine the cargo control room.

~~(8)~~ (7) To examine the gas detection arrangements for cargo control rooms and the measures taken to exclude ignition sources where such spaces are not gas-safe.

~~(9)~~ (8) To confirm the arrangements for the air locks are being properly maintained.

~~(10)~~ (9) To examine, as far as practicable, the bilge, ballast and oil fuel arrangements.

~~(11)~~ (10) To examine, when applicable, the bow or stern loading and unloading arrangements with particular reference to the electrical equipment, fire-fighting arrangements and means of communication between the cargo control room and the shore location.

~~(12)~~ (11) To confirm that the sealing arrangements at the gas domes are satisfactory.

~~(13)~~ (12) To confirm that the portable or fixed drip trays or deck insulation for cargo leakage is in order.

~~(14)~~ (13) To examine the cargo and process piping, including the expansion arrangements, insulation from the hull structure, pressure relief and drainage arrangements.

~~(15)~~ (14) To confirm that the cargo tank and interbarrier space pressure and relief valves, including safety systems and alarms, are satisfactory.

~~(16)~~ (15) To confirm that any liquid and vapour hoses are suitable for their intended purpose and, where appropriate, type-approved or marked with date of testing.

(17) To examine the arrangements for the cargo pressure/temperature control including, when fitted, any refrigeration system and to confirm that any associated alarms are satisfactory.

(18) To examine the cargo, bunker, ballast and vent piping systems, including vent masts and protective screens, as far as practicable.

(19) To confirm that arrangements are made for sufficient inert gas to be carried to compensate for normal losses and that means are provided for monitoring the spaces.

(19) To confirm that the use of inert gas has not increased beyond that needed to compensate for normal losses by examining records of inert gas usage.

~~(28) To examine and confirm the satisfactory operation of, the arrangements for the mechanical ventilation of spaces normally entered.~~ To examine and confirm the satisfactory operation of, the arrangements for the mechanical ventilation of spaces normally entered other than those covered by (27).

#### A2.3.2.3 Intermediate surveys

(1) The applicable provisions of 5.4.3, 5.6.3, 5.9.3, 5.10.3 and 5.16.3 in Chapter 5 of PART ONE of CCS Rules for Classification of Sea-Going Steel Ships.

~~(5) To confirm that spares are provided for cargo area mechanical ventilation fans.~~

(6) To confirm that the heating arrangements, if any, for steel structures are satisfactory.

(7) Instrumentation and safety systems

① The instrumentation of the cargo installations with regard to pressure, temperature and liquid level is to be visually examined and to be tested by changing the pressure, temperature and level as applicable and comparing with test instruments. Simulated testing may be accepted for sensors which are not accessible or for sensors located within cargo tanks or inerted hold spaces. The testing is to include testing of alarm and safety functions.

② The piping of the gas detection system is to be visually inspected for corrosion and damage as far as practicable. The integrity of the suction lines between suction points and analyzing units is to be verified as far as possible. Gas Detectors are to be calibrated or verified with sample gases.

③ The emergency shutdown system is to be tested, without flow in the pipe lines, to verify that the system will cause the cargo pumps and compressors to stop.

(8) Electrical equipment: Electrical equipment in gas-dangerous spaces and zones is to be examined as far as practicable with particular respect to the following:

① protective earthing (spot check);

② integrity of flameproof enclosures;

③ damage of outer sheath of cables;

④ function testing of pressurized equipment and of associated alarms;

⑤ testing of systems for de-energizing non-certified safe electrical equipment located in spaces protected by air locks, such as electrical motor-rooms, cargo control rooms, etc.;

⑥ testing of insulation resistance of circuits.

(9) Miscellaneous

The instrumentation and safety systems for burning cargo as fuel are to be examined.

#### A2.3.2.4 Special surveys

(1) The applicable provisions of 5.4.4, 5.6.4, 5.9.4, 5.10.4 and 5.16.4 in Chapter 5 of PART ONE of CCS Rules for Classification of Sea-Going Steel Ships.

(2) The provisions of A2.3.2.3 (2) to (9) of the Rules.