

RESOLUTION A.326(IX)

*Adopted on 12 November 1975
Agenda item 7(c)*

**AMENDMENTS TO THE DRAFT REGULATIONS CONCERNING
FIRE SAFETY MEASURES FOR TANKERS AND COMBINATION CARRIERS
ANNEXED TO RESOLUTION A.271(VIII)**

THE ASSEMBLY,

NOTING Article 16(i) of the IMCO Convention concerning the functions of the Assembly,

RECALLING that it adopted in Resolution A.271(VIII) the Draft Regulations Concerning Fire Safety Measures for Tankers and Combination Carriers and at the same time instructed the Maritime Safety Committee to continue its study on this subject with a view to developing the requirements further, as regards the provisions in respect of smaller vessels carrying crude oil and vessels of all sizes carrying products other than those described in Regulation 1 of the draft Regulations,

HAVING CONSIDERED the amendments to Resolution A.271(VIII) approved by the Maritime Safety Committee at its thirty-second session,

ADOPTS the above-mentioned amendments to the draft Regulations contained in Resolution A.271(VIII), as set out in the Annex hereto,

INVITES all governments concerned:

- (a) to make known the amendments to the draft Regulations to shipowners and operators under their jurisdiction;
- (b) to make every effort to ensure that the amendments to the draft Regulations are applied as soon as possible; and
- (c) to inform the Organization of measures taken by them in this respect.

ANNEX

**AMENDMENTS TO THE DRAFT REGULATIONS CONCERNING
FIRE SAFETY MEASURES FOR TANKERS AND COMBINATION CARRIERS
ANNEXED TO RESOLUTION A.271(VIII) WITH RESPECT
TO SMALLER VESSELS**

1. *Regulation 8 is amended to read as follows:*

Regulation 8

Cargo Tank Protection

- (a) For crude oil tankers of 100,000 tons deadweight and over and crude oil combination carriers of 50,000 tons deadweight and over, the protection of the cargo tanks deck area and

cargo tanks shall be achieved by a fixed deck froth system and a fixed inert gas system in accordance with the requirements of Regulations 9 and 10 of these Regulations except that in lieu of the above installations the Administration, after having given consideration to the ship arrangement and equipment, may accept other combinations of fixed installations if they afford protection equivalent to the above, in accordance with Regulation 5 of Chapter I of the Convention.

- (b) To be considered equivalent, the system proposed in lieu of the deck froth system shall:
 - (i) be capable of extinguishing spill fires and also preclude ignition of spilled oil not yet ignited; and
 - (ii) be capable of combating fires in ruptured tanks.
- (c) To be considered equivalent, the system proposed in lieu of the fixed inert gas system shall:
 - (i) be capable of preventing dangerous accumulations of explosive mixtures in intact cargo tanks during normal service throughout the ballast voyage and necessary in-tank operations; and
 - (ii) be so designed as to minimize the risk of ignition from the generation of static electricity by the system itself.
- (d) For tankers and combination carriers of a deadweight less than limited in paragraph (a), the protection of the cargo tanks deck area and cargo tanks shall be achieved by:
 - (i) a fixed froth system and a fixed inert gas system in accordance with Regulations 9 and 10; or
 - (ii) a fixed froth system in accordance with Regulation 9A.

2. *The following new Regulation 9A is inserted:*

Regulation 9A

Fixed Deck Froth System

(In ships not fitted with inert gas systems)

- (a) The arrangements for providing froth shall be capable of delivering froth to the entire cargo tank area as well as into any cargo tank, the deck of which has been ruptured.
- (b) The deck froth system shall be capable of simple and rapid operation. The main control station for the system shall be suitably located outside of the cargo tank area, adjacent to the accommodation spaces and readily accessible and operable in the event of fire in the areas protected.
- (c) The rate of supply of froth solution shall be not less than the greater of the following:
 - (i) 0.6 litre per minute per square metre of the cargo deck area, where cargo deck area means the maximum breadth of the ship times the total longitudinal extent of the cargo tank spaces, or
 - (ii) 6 litres per minute per square metre of the horizontal sectional area of the single tank having the largest such area,
 - (iii) 3 litres per minute per square metre of the area protected by the largest monitor, such area being entirely forward of the monitor, but not less than 1,250 litres per minute.

Sufficient froth concentrate shall be supplied to ensure at least 30 minutes of froth generation when using solution rates stipulated in sub-paragraphs (i), (ii) or (iii) of this paragraph, whichever is the greater. The froth expansion ratio (i.e. the ratio of the volume of froth produced to the volume of the mixture of water and froth-making concentrate supplied) shall not generally exceed 12 to 1. Where systems essentially produce low expansion froth but at an

expansion ratio slightly in excess of 12 to 1, the quantity of froth solution available shall be calculated as for 12 to 1 expansion ratio systems. When medium expansion ratio froth (between 50 to 1 and 150 to 1 expansion ratio) is employed the application rate of the froth and the capacity of a monitor installation shall be to the satisfaction of the Administration.

(d) Froth from the fixed froth system shall be supplied by means of monitors and froth applicators. At least 50 per cent of the froth rate required in sub-paragraphs (i) or (ii) of paragraph (c) of this Regulation shall be delivered from each monitor. On tankers of a deadweight less than 4,000 tons the Administration may not require installation of monitors but only applicators. However, in such a case the capacity of each applicator shall be at least 25 per cent of the froth rate required in sub-paragraphs (i) or (ii) of paragraph (c) of this Regulation.

(e) (i) The number and position of monitors shall be such as to comply with paragraph (a) of this Regulation. The capacity of any monitor shall be at least 3 litres per minute of froth solution per square metre of deck area protected by that monitor, such area being entirely forward of the monitor. Such capacity shall be not less than 1,250 litres per minute.

(ii) The distance from the monitor to the farthest extremity of the protected area forward of that monitor shall not be more than 75 per cent of the monitor throw in still air conditions.

(f) A monitor and hose connexion for a froth applicator shall be situated both port and starboard at the poop front or accommodation spaces facing the cargo deck. On tankers of a deadweight of less than 4,000 tons a hose connexion for a froth applicator shall be situated both port and starboard at the poop front or accommodation spaces facing the cargo deck.

(g) Applicators shall be provided for flexibility of action during fire-fighting operations and to cover areas screened from the monitors. The capacity of any applicator shall be not less than 400 litres per minute and the applicator throw in still air conditions shall be not less than 15 metres. The number of froth applicators provided shall be not less than four. The number and disposition of froth main outlets shall be such that froth from at least two applicators can be directed on to any cargo tank deck area.

(h) Valves shall be provided in the froth main, and in the fire main when this is an integral part of the deck froth system, immediately forward of any monitor position to isolate damaged sections of those mains.

(i) Operation of a deck froth system at its required output shall permit the simultaneous use of the minimum required number of jets of water at the required pressure from the fire main.

(j) A total of four sets of fireman's outfits shall be provided, each as specified in Regulation 14 of Chapter II-2 of the International Convention for the Safety of Life at Sea, 1974.

3. *Regulation 12 is amended to read as follows:*

Regulation 12

Fire Main and Hose Nozzles

(a) All hose water nozzles provided shall be of an approved dual purpose type (i.e. spray/jet type) incorporating a shut-off.

(b) Isolation valves shall be fitted in the fire main at poop front in a protected position and on the tank deck at intervals of not more than 40 metres to preserve the integrity of the fire main system in case of fire or explosion.