

S.I. No. 46/1994:

**SEA POLLUTION (CONTROL OF POLLUTION BY NOXIOUS LIQUID
SUBSTANCES IN BULK) REGULATIONS, 1994.**

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S.I. No. 46 of 1994.

SEA POLLUTION (CONTROL OF POLLUTION BY NOXIOUS LIQUID SUBSTANCES IN BULK) REGULATIONS, 1994.

I, DAVID ANDREWS, Minister for the Marine, in exercise of the powers conferred on me by sections 10 of the Sea Pollution Act, 1991 (No. 27 of 1991) and for the purpose of giving effect to the MARPOL Convention, Annex II, hereby make the following Regulations:

PART I General

Citation and commencement.

1. These Regulations may be cited as the Sea Pollution (Control of Pollution by Noxious Liquid Substances in Bulk) Regulations, 1994 and shall come into operation on the 1st day of June, 1994.

Interpretation and application.

2. (1) In these Regulations except where the context otherwise requires:

"the Act" means the Sea Pollution Act, 1991;

"anniversary date" means the day and the month of each year which will correspond to the date of expiry of the International Pollution Prevention Certificate for the carriage of Noxious Liquid Substances in Bulk;

the "Bulk Chemical Code" means the Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk adopted by the Marine Environment Protection Committee of the Organisation by resolution MEPC.20 (22), as amended by resolution MEPC.41 (29) on 16 March, 1990 and as may be amended by the Organisation;

"chemical tanker" means a ship constructed or adapted primarily to carry a cargo of noxious liquid substances in bulk and includes an oil tanker as defined in the Sea Pollution (Prevention of Oil Pollution) Regulations, 1994 (No. 44 of 1994), when carrying a cargo or part cargo of noxious liquid substances in bulk;

"clean ballast" means ballast carried in a tank which, since it was last used to carry a noxious liquid substance in bulk, has been thoroughly cleaned and the residues resulting therefrom have been discharged and the tank emptied in accordance with the appropriate requirements of these Regulations;

"en route" means that the ship is under way at sea on a course, or courses, which so far as practicable for navigational

purposes, will cause any discharge to be spread over as great an area of the sea as is reasonably practicable;

"IPPC Certificate" means an International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk;

"International Bulk Chemical Code" means the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk adopted by the Marine Environment Protection Committee of the Organisation by resolution MEPC 19 (22), as amended by resolution MEPC.40 (29) on 16 March, 1990 and as may be amended by the Organisation;

"liquid substances" are those having a vapour pressure not exceeding 2.8 kp/cm² at a temperature of 37.8°C

a "Marine Notice" means a Notice described as such, issued by the Minister for the Marine and which may be amended or replaced from time to time;

the "MARPOL Convention" means the International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocol thereto, 1978;

"the Minister" means the Minister for the Marine;

"nearest land". The term "from the nearest land" means from the baseline from which the territorial sea of the territory in question is established in accordance with the Convention on the Territorial Sea and the Contiguous Zone, 1958 except that, for the purposes of the present Convention "from the nearest land" off the north-eastern coast of Australia shall mean from a line drawn from a point on the coast of Australia in latitude 11°00' S, longitude 142°08' E to a point in latitude 10°35' S, longitude 141°55' E,

longitude 142°00' E,

thence to a point latitude 10°00' S,

longitude 143°52' E,

thence to a point latitude 9°10' S,

longitude 144°30' E,

thence to a point latitude 9°00' S,

longitude 144°00' E,

thence to a point latitude 13°00' S,

longitude 146°00' E,

thence to a point latitude 15°00' S,

longitude 147°00' E, thence to a point latitude 18°00' S,
longitude 153°00' E, thence to a point latitude 21°00' S,
Australia in latitude 24°42' S, longitude 153°15' E; thence to a point on the coast of

"noxious liquid substances" means the substances listed in the First Schedule (being substances falling into Categories A, B, C and D) and any other liquid substances which are provisionally listed or class-approved as Category A, B, C or D substances and includes residual mixtures;

International Maritime Organisation; the "Organisation" means the

ratified the MARPOL Convention; a "Party" means a State which has

"residual mixtures" means in relation to any category of noxious liquid substances, ballast water, tank washings or other mixtures containing residues of a noxious liquid substance of such category but excludes clean ballast;

"segregated ballast" means ballast water introduced into a tank permanently allocated to the carriage of ballast or to the carriage of ballast or cargoes other than oil or noxious liquid substances as variously defined in the Annexes of the MARPOL Convention, and which is completely separated from the cargo and oil fuel system;

"ship constructed" means a ship the keel of which is laid or which is at a similar stage of construction. A ship converted to a chemical tanker, irrespective of the date of construction, shall be treated as a chemical tanker constructed on the date on which such conversion commenced. This conversion provision shall not apply to the modification of a ship which complies with all of the following conditions:

July, 1986; and (a) the ship is constructed before 1

Bulk Chemical Code to carry only those products identified by the Code as substances with pollution hazards only; (b) the ship is certified under the

means the stage at which: "similar stage of construction"

specific ship begins; and (a) construction identifiable with a

(b) assembly of that ship has commenced comprising at least 50 tons or one per cent of the estimated mass of all structural material, whichever is less;

"special area" means a sea area where for recognised technical reasons in relation to its oceanographic and ecological condition and to the particular character of its traffic the adoption of special mandatory methods for the prevention of sea pollution by noxious liquid substances is required.

Special areas are the Baltic Sea area and the Black Sea area, defined as follows:

"the Baltic Sea area" means the Baltic Sea proper with the Gulf of Bothnia, the Gulf of Finland and the entrance to the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at 57°44.8'N;

"the Black Sea area" means the Black Sea proper with the boundary between the Mediterranean and the Black Sea constituted by the parallel 41°N;

"surveyor" means a surveyor of ships or other competent person appointed under section 20 of the Act for the purposes of section 17 of the Act.

(2) Subject to Section 4 of the Act (which provides for exemptions) and unless expressly provided otherwise, these Regulations apply to all ships carrying noxious liquid substances in bulk;

(3) The Minister may allow any fitting, material, appliance or apparatus to be fitted in a ship as an alternative to that required by these Regulations if such fitting, material, appliance or apparatus is at least as effective as that required by these Regulations. The authority of the Minister shall not extend to the substitution of operational methods to effect the control of discharge of noxious liquid substances as equivalent to those design and construction features which are prescribed by these Regulations;

(4) Any reference in these Regulations to standards and guidelines developed by the Organisation, shall include a reference to any document amending those standards and guidelines which is considered by the Minister to be relevant from time to time and is specified in a Marine Notice.

PART II Categorisation, Listing and Discharge of Noxious Liquid Substances

Noxious liquid substances.

3. (1) For the purpose of these Regulations, noxious liquid substances shall be divided into four categories as follows:

Category A: Noxious liquid substances which if discharged into the sea from tank cleaning or deballasting operations would present a major hazard to either marine resources or human health or cause serious harm to amenities or other legitimate uses of the sea and, therefore, justify the application of stringent anti-pollution measures;

Category B: Noxious liquid substances which if discharged into the sea from tank cleaning or deballasting operations would present a hazard to either marine resources or human health or cause harm to amenities or other legitimate uses of the sea and, therefore, justify the application of special anti-pollution measures;

Category C: Noxious liquid substances which if discharged into the sea from tank cleaning or deballasting operations would present a minor hazard to either marine resources or human health or cause minor harm to amenities or other legitimate uses of the sea and, therefore, require special operational locations;

Category D: Noxious liquid substances which if discharged into the sea from tank cleaning or deballasting operations would present a recognisable hazard to either marine resources or human health or cause minimal harm to amenities or other legitimate uses of the sea and, therefore, require some attention in operational conditions.

(2) Guidelines for use in the categorisation of noxious liquid substances are given in the First Schedule to these Regulations.

(3) The list of noxious liquid substances carried in bulk and presently categorised which are subject to the provisions of these Regulations is set out in the Second Schedule to these Regulations.

(4) References in these Regulations to substances provisionally assessed are to provisional assessments made in accordance with Regulation 3 of Annex II of the MARPOL Convention.

Other liquid substances.

4. (1) The substances listed in the Third Schedule to these Regulations have been evaluated and found to fall outside Categories A, B, C and D because they are presently considered to present no harm to human health, marine resources, amenities or other legitimate uses of the sea, when discharged into the sea from tank cleaning or deballasting operations.

(2) The discharge of bilge or ballast water or other residues or mixtures containing only substances listed in the Third Schedule to these Regulations shall not be subject to any requirement of these Regulations.

(3) The discharge into the sea of clean ballast or segregated ballast shall not be subject to any requirement of these Regulations.

Category A, B and C substances outside special areas and Category D substances in all areas

Discharge of noxious liquid substances.

Section 11 of the Act: 5. Subject to the provisions of

(1) The discharge into the sea of substances in Category A or of those provisionally assessed as such or of residual mixtures, is hereby prohibited.

If tanks, containing such substances or mixtures are to be washed, the resulting residues shall be discharged to a reception facility until the concentration of the substance in the effluent to such facility is at or below the residual concentration prescribed for that substance in column III of the Second Schedule to these Regulations and until the tank is empty.

(2) Any water subsequently added to the tank may be discharged into the sea when all the following conditions are satisfied:

(a) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;

(b) the discharge is made below the waterline, taking into account the location of the seawater intakes; and

(c) the discharge is made at a distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 metres.

(3) The discharge into the sea of substances in Category B or Category C or of those provisionally assessed as such or of residual mixtures, is hereby prohibited except when all of the following conditions are satisfied:

(a) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;

(b) the procedures and arrangements for discharge are approved by the Minister. Such procedures and arrangements shall be based

upon standards developed by the Organisation and shall ensure that the concentration and rate of discharge of the effluent is such that the concentration of the substance in Category B in the wake astern of the ship does not exceed 1 part per million and that the concentration of the substance in Category C in the wake astern of the ship does not exceed 10 parts per million.

(c) the maximum quantity of cargo discharged from each tank and its associated piping system does not exceed the maximum quantity approved in accordance with the procedures referred to in subparagraph (b) of this paragraph, which shall for a substance in Category B in no case exceed the greater of 1 cubic metre or 1/3,000th of the tank capacity in cubic metres and for a substance in Category C, in no case exceed the greater of 3 cubic metres or 1/1,000th of the tank capacity in cubic metres;

(d) the discharge is made below the waterline, taking into account the location of the seawater intakes; and

(e) the discharge is made at a distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 metres.

(4) The discharge into the sea of substances in Category D or of those provisionally assessed as such or of residual mixtures, is hereby prohibited except when all the following conditions are satisfied:

(a) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;

(b) such mixtures are of a concentration not greater than one part of the substance in ten parts of water; and

(c) the discharge is made at a distance of not less than 12 nautical miles from the nearest land.

(5) Ventilation procedures approved by the Minister may be used to remove cargo residues from a tank. Such procedures shall be based upon standards developed by the Organisation. Any water subsequently introduced into the tank shall be regarded as clean and shall not be subject to paragraph (1), (2), (3) or (4) of this Regulation.

(6) The discharge into the sea of substances which have not been categorised, provisionally assessed, or evaluated as referred to in Regulation 4 (1) of these Regulations, or of residual mixtures, is hereby prohibited.

Category A, B and C substances

within special areas

(7) The discharge into the sea of substances in Category A or of those provisionally assessed as such or of residual mixtures, is hereby prohibited.

If tanks containing such substances or mixtures are to be washed the resulting residues shall be discharged to a reception facility which the Parties bordering the special area shall provide in accordance with Regulation 7 of these Regulations until the concentration of the substance in the effluent to such facility is at

or below the residual concentration prescribed for that substance in column IV of the Second Schedule to these Regulations and until the tank is empty. Any water subsequently added to the tank may be discharged into the sea when all the following conditions are satisfied:

(a) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;

(b) the discharge is made below the waterline, taking into account the location of the seawater intakes; and

(c) the discharge is made at a distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 metres.

(8) The discharge into the sea of substances in Category B or of those provisionally assessed as such or of residual mixtures, is hereby prohibited except when all the following conditions are satisfied:

(a) the tank has been prewashed in accordance with the procedure approved by the Minister and based on standards developed by the Organisation and the resulting tank washings have been discharged to a reception facility;

(b) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;

(c) the procedures and arrangements for discharge and washings are approved by the Minister. Such procedures and arrangements shall be based upon standards developed by the Organisation and shall ensure that the concentration and rate of discharge of the effluent is such that the concentration of the substance in the wake astern of the ship does not exceed 1 part per million;

(d) the discharge is made below the waterline, taking into account the location of the seawater intakes; and

(e) the discharge is made at a distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 metres.

(9) The discharge into the sea of substances in Category C or of those provisionally assessed as such or of residual mixtures, is hereby prohibited except when all the following conditions are satisfied:

(a) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;

(b) the procedures and arrangements for discharge are approved by the Minister. Such procedures and arrangements shall be based upon standards developed by the Organisation and shall ensure that the concentration and rate of discharge of the effluent is such that the concentration of the substance in the wake astern of the ship does not exceed 1 part per million;

(c) the maximum quantity of cargo discharged from each tank and its associated piping system does not exceed the maximum quantity approved in accordance with the procedures referred to in subparagraph (b) of this

paragraph which shall in no case exceed the greater of 1 cubic metre or 1/3,000th of the tank capacity in cubic metres;

(d) the discharge is made below the waterline, taking into account the location of the seawater intakes; and

(e) the discharge is made at a distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 metres.

(10) Ventilation procedures approved by the Minister may be used to remove cargo residues from a tank. Such procedures shall be based upon standards developed by the Organisation. Any water subsequently introduced into the tank shall be regarded as clean and shall not be subject to paragraph (7), (8) or (9) of this Regulation.

(11) The discharge into the sea of substances which have not been categorised, provisionally assessed or evaluated as referred to in Regulation 4 (1) of these Regulations, or of residual mixtures, is hereby prohibited.

(12) Nothing in this Regulation shall prohibit the owner and master of a ship from retaining on board the residues from a Category B or C cargo and discharging such residues into the sea outside a special area in accordance with paragraph (3) of this Regulation.

Pumping, piping and unloading arrangements.

6. (1) The owner of every ship constructed on or after 1 July, 1986 shall provide the ship with pumping and piping arrangements to ensure, through testing under favourable pumping conditions, that for each tank designated for the carriage of a Category B substance or a Category C substance, respectively, the quantity of residue retained in the tank's associated piping and in the immediate vicinity of that tank's suction point would not exceed:

(a) in the case of a tank designated for the carriage of a Category B substance, 0.1 cubic metres, or

(b) in the case of a tank designated for the carriage of a Category C substance, 0.3 cubic metres.

(2) Subject to the provisions of paragraph (3) of this Regulation, the owner of every ship constructed before 1 July, 1986 shall provide the ship with pumping and piping arrangements to ensure, through testing under favourable pumping conditions, that for each tank designated for the carriage of a Category B substance or a Category C substance, respectively, the quantity of residue retained in the tank's associated piping and in the immediate vicinity of that tank's suction point would not exceed:

(a) in the case of a tank designated for the carriage of a Category B substance, 0.3 cubic metres, or

(b) in the case of a tank designated for the carriage of a Category C substance, 0.9 cubic metres.

(3) Until 2 October, 1994 ships referred to in paragraph (2) of this Regulation if not in compliance with the requirements of that paragraph shall, as a minimum, be provided with pumping and piping arrangements to ensure, through testing under favourable pumping conditions and surface residue assessment, that each tank designated for the carriage of a Category B substance or a Category C substance the quantity of residue retained in that tank and the associated piping would not exceed:

(a) in the case of a tank designated for the carriage of a Category B substance, 1 cubic metre or 1/3000th of the capacity of the tank in cubic metres, whichever is the greater, or

(b) in the case of a tank designated for the carriage of a Category C substance, 3 cubic metres or 1/1000th of the capacity of the tank in cubic metres, whichever is the greater.

(4) Pumping conditions referred to in paragraphs (1), (2) and (3) of this Regulation shall be approved by the Minister and based on standards developed by the Organisation. Pumping efficiency tests referred to in paragraphs (1), (2) and (3) of this Regulation shall use water as the test medium and shall be approved by the Minister and based on standards developed by the Organisation. The residues on cargo tank surfaces, referred to in paragraph (3) of this Regulation shall be based on standards developed by the Organisation.

(5) (a) Subject to the provisions of subparagraph (b) of this paragraph, the provisions of paragraph (2) of this Regulation need not apply to a ship constructed before 1 July, 1986 which is engaged in restricted voyages as determined by the Minister between:

or other Party;

(i) ports or terminals within the State

or

(ii) ports or terminals of Parties.

(b) The provisions of subparagraph

(a) of this paragraph shall only apply to a ship constructed before 1 July, 1986 if:

(i) each time a tank containing Category B or C substances or mixtures is to be washed or ballasted, the tank is washed in accordance with a pre-wash procedure approved by the Minister and based on standards developed by the Organisation and the tank washings are discharged to a reception facility;

(ii) subsequent washings or ballast water are discharged to a reception facility or at sea in accordance with other provisions of these Regulations;

(iii) the adequacy of the reception facilities at the ports or terminals referred to above, for the purpose of this paragraph, is approved by the Minister or the Administration in case of ports or terminals of other Parties;

(iv) the Certificate required under these Regulations is endorsed to the effect that the ship is solely engaged in such restricted voyages.

(6) For a ship whose constructional and operational features are such that ballasting of cargo tanks is not required

and cargo tank washing is only required for repair or dry-docking, the Minister may allow exemption from the provisions of paragraphs (1), (2) and (3) of this Regulation, provided that all the following conditions are complied with:

(a) the design, construction and equipment of the ship are approved by the Minister, having regard to the service for which it is intended;

(b) any effluent from tank washings which may be carried out before a repair or dry-docking is discharged to a reception facility, the adequacy of which is ascertained by the Minister;

(c) the certificate required under these Regulations indicates:

for the carriage of only one named substance; and

operational manual approved by the Minister.

(i) that each cargo tank is certified

(ii) the particulars of the exemption;

(d) the ship carries a suitable

Reception facilities and cargo unloading terminal arrangements.

7. (1) Harbour authorities and persons having control of a harbour shall provide reception facilities according to the needs of ships using its ports, terminals or repair ports as follows:

(a) cargo loading and unloading ports and terminals shall have facilities adequate for reception without undue delay to ships of such residues and mixtures containing noxious liquid substances as would remain for disposal from ships carrying them as a consequence of the application of these Regulations; and

(b) ship repair ports undertaking repairs to chemical tankers shall have facilities adequate for the reception of residues and mixtures containing noxious liquid substances.

(2) The types of facilities provided for the purpose of paragraph (1) of this Regulation at each cargo loading and unloading port, terminal and ship repair port shall be to the satisfaction of the Minister.

(3) Harbour authorities and persons having control of cargo unloading terminals shall provide arrangements to facilitate stripping of cargo tanks of ships unloading noxious liquid substances at these terminals. Cargo hoses and piping systems of the terminal, containing noxious liquid substances received from ships unloading these substances at the terminal, shall not be drained back to the ship.

(4) The Minister shall notify the Organisation, for transmission to the Parties concerned, of any case where facilities required under paragraph (1) or arrangements required under paragraph (3) of this Regulation are alleged to be inadequate.

Measures of control.

8. (1) (a) The Minister shall appoint or authorise surveyors for the purpose of implementing this Regulation. The surveyors shall execute control as approved by the Minister and based on standards and control procedures developed by the Organisation.

(b) The master of a ship carrying noxious liquid substances in bulk shall ensure that the provisions of Regulation 5 and this Regulation have been complied with and that the Cargo Record Book is completed in accordance with Regulation 9 of these Regulations whenever operations as referred to in that Regulation take place.

Washing tanks which contained

Category A substances—in all areas

(2) With respect to Category A substances a tank which has been unloaded shall, subject to the provisions of paragraph (10) of this Regulation, with respect to Category A substances, be washed in accordance with the requirements of paragraph (3) or (4) of this Regulation before the ship leaves the port of unloading.

(3) If the tank is to be washed in accordance with paragraph (2) of this Regulation, the effluent from the tank washing operation shall be discharged to a reception facility at least until the concentration of the substance in the discharge, as indicated by analyses of samples of the effluent taken by the surveyor, has fallen to the residual concentration specified for that substance in the Second Schedule to these Regulations. When the required residual concentration has been achieved, remaining tank washings shall continue to be discharged to the reception facility until the tank is empty. Appropriate entries of these operations shall be made in the Cargo Record Book and endorsed by the surveyor referred to under paragraph (1) (a) of this Regulation.

(4) Where the Minister is satisfied that it is impracticable to measure the concentration of the substance in the effluent without causing undue delay to the ship, he may accept an alternative procedure as being equivalent to paragraph (3) of this Regulation provided that:

(a) The tank is prewashed in accordance with a procedure approved by the Minister and based on standards developed by the Organisation; and

(b) The surveyor referred to under paragraph (1) (a) of this Regulation certifies in the Cargo Record Book that:

(i) the tank, its pump and piping systems have been emptied; and

(ii) the prewash has been carried out in accordance with the prewash procedure approved by the Minister for that tank and that substance; and

(iii) the tank washings resulting from such prewash have been discharged to a reception facility and the tank is empty.

Washing tanks which contained

Category B and C substances—outside special areas

(5) With respect to Category B and C substances, the following provisions shall apply outside special areas:

A tank which has been unloaded shall, subject to the provisions of paragraph (10) of this Regulation, with respect to Category B and C substances, be prewashed before the ship leaves the port of unloading, whenever:

(i) the substance unloaded is identified in the standards developed by the Organisation as resulting in a residue quantity exceeding the maximum quantity which may be discharged into the sea under Regulation 5 (3) of these Regulations in case of Category B or C substances, respectively; or

(ii) the unloading is not carried out in accordance with the pumping conditions for the tank approved by the Minister and based on standards developed by the Organisation as referred to under Regulation 6 (4) of these Regulations, unless alternative measures are taken to the satisfaction of the surveyor referred to in paragraph (1) (a) of this Regulation, to remove the cargo residues from the ship to quantities specified in Regulation 6 of these Regulations as applicable.

The prewash procedure used shall be approved by the Minister and based on standards developed by the Organisation and the resulting tank washings shall be discharged to a reception facility at the port of unloading.

Washing tanks which contained

Category B substances—within special areas

(6) With respect to Category B substances, the following provisions shall apply within special areas:

(a) A tank which has been unloaded shall, subject to the provisions of subparagraph (b) of this paragraph and paragraph (10) of this Regulation with respect to Category B substances, be prewashed before the ship leaves the port of unloading and the resulting tank washings shall be discharged to a reception facility at the port of unloading. The prewash procedure used shall be approved by the Minister and based on standards developed by the Organisation.

(b) The requirements of subparagraph (a) of this paragraph do not apply when all the following conditions are satisfied:

(i) the Category B substance unloaded is identified in the standards developed by the Organisation as resulting in a residue quantity not exceeding the maximum quantity which may be discharged into the sea outside special areas under Regulation 5 (3) of these Regulations, with respect to Category B substances, and the residues are retained on board for subsequent discharge into the sea outside the special area in compliance with Regulation 5 (3) of these Regulations; and

(ii) the unloading is carried out in accordance with the pumping conditions for the tank approved by the Minister and based on standards developed by the Organisation as referred to under Regulation 6 (4) of these Regulations, or failing to comply with the approved pumping conditions, alternative

measures are taken to the satisfaction of the surveyor referred to in paragraph (1) (a) of this Regulation, to remove the cargo residues from the ship to quantities specified in Regulation 6 of these Regulations as applicable.

Washing tanks which contained

Category C substances — within special areas

(7) With respect of Category C substances, the following provisions shall apply within special areas:

(a) A tank which has been unloaded shall, subject to the provisions of subparagraph (b) of this paragraph and paragraph (10) of this Regulation with respect to Category C substances, be prewashed before the ship leaves the port of unloading, whenever:

(i) the Category C substance unloaded is identified in the standards developed by the Organisation as resulting in a residue quantity exceeding the maximum quantity which may be discharged into the sea under Regulation 5 (9) of these Regulations; or

(ii) the unloading is not carried out in accordance with the pumping conditions for the tank approved by the Minister and based on standards developed by the Organisation as referred to under Regulation 6 (4) of these Regulations, unless alternative measures are taken to the satisfaction of the surveyor referred to in paragraph (1) (a) of this Regulation, to remove the cargo residues from the ship to quantities specified in Regulation 6 of these Regulations as applicable.

The prewash procedure used shall be approved by the Minister and based on standards developed by the Organisation and the resulting tank washings shall be discharged to a reception facility at the port of unloading.

(b) The requirements of subparagraph (a) of this paragraph do not apply when all the following conditions are satisfied:

(i) the Category C substance unloaded is identified in the standards developed by the Organisation as resulting in a residue quantity not exceeding the maximum quantity which may be discharged into the sea outside special areas under Regulation 5 (3) of these Regulations, with respect to Category C substances, and the residues are retained on board for subsequent discharge into the sea outside the special area in compliance with Regulation 5 (3) of these Regulations; and

(ii) the unloading is carried out in accordance with the pumping conditions for the tank approved by the Minister and based on standards developed by the Organisation as referred to under Regulation 6 (4) of these Regulations, or failing to comply with the approved pumping conditions, alternative measures are taken to the satisfaction of the surveyor referred to in paragraph (1) (a) of this Regulation, to remove the cargo residues from the ship to quantities specified in Regulation 6 of these Regulations as applicable.

Washing tanks which contained

Category D substances—all areas

(8) With respect to Category D substances, a tank which has been unloaded shall either be washed and the resulting tank washings shall be discharged to a reception facility, or the remaining residues in the tank shall be diluted and discharged into the sea in accordance with Regulation 5 (4) of these Regulations.

Discharge from a slop tank

(9) Any residues retained on board in a slop tank, including those from cargo pump-room bilges, which contain a Category A substance, or within a special area either a Category A or a Category B substance, shall be discharged to a reception facility in accordance with the provisions of Regulation 5 (1), (2), (7) or (8) of these Regulations, whichever is applicable.

Exemptions—Categories A, B and

C—all areas

(10) At the request of the ship's owner, an exemption from the provisions of this Regulation may be granted by the Minister to a ship engaged in voyages to ports or terminals under the jurisdiction of other Parties. When such an exemption has been granted, the appropriate entry made in the Cargo Record Book shall be endorsed by the surveyor referred to in paragraph (1) (a) of this Regulation.

(a) Category A substances

At the request of the ship's owner, the Minister may exempt a ship from the requirements of paragraph (2) of this Regulation, where satisfied that:

(i) the tank unloaded is to be reloaded with the same substance or another substance compatible with the previous one and that the tank will not be washed or ballasted prior to loading; or

(ii) the tank unloaded is neither washed nor ballasted at sea and the provisions of paragraph (3) or (4) of this Regulation are complied with at another port provided that it has been confirmed in writing that a reception facility at that port is available and is adequate for such a purpose; or

(iii) the cargo residues will be removed by a ventilation procedure approved by the Minister and based on standards developed by the Organisation.

(b) Categories B and C substances

At the request of the ship's owner, the Minister may exempt a ship from the requirements of paragraphs (5), (6) (a) and (7) (a) of this Regulation where satisfied that:

(i) the tank unloaded is to be reloaded with the same substance or another substance compatible with the previous one and that the tank will not be washed or ballasted prior to loading; or

(ii) the tank unloaded is neither washed nor ballasted at sea and the tank is prewashed in accordance with a procedure approved by the Minister and based on standards developed by the Organisation and resulting tank washings are discharged to a reception facility at another port, provided that it has been confirmed in writing that a reception facility at that port is available and adequate for such a purpose; or

(iii) the cargo residues will be removed by a ventilation procedure approved by the Minister and based on standards developed by the Organisation.

PART III Records

Cargo record book.

9. (1) Every ship to which these Regulations apply shall be provided by the owner with a Cargo Record Book, whether as part of the ship's official log book or otherwise, in the form specified in the Fourth Schedule to these Regulations.

(2) The Cargo Record Book shall be completed, on a tank-to-tank basis, whenever any of the following operations with respect to a noxious liquid substance take place in the ship:

- (i) loading of cargo;
- (ii) internal transfer of cargo;
- (iii) unloading of cargo;
- (iv) cleaning of cargo tanks;
- (v) ballasting of cargo tanks;
- (vi) discharge of ballast from cargo

tanks;

- (vii) disposal of residues to reception

facilities;

- (viii) discharge into the sea or

removal by ventilation of residues in accordance with Regulation 5 of these Regulations.

(3) In the event of any discharge of the kind referred to in Article 8 of the MARPOL Convention and section 11 of the Sea Pollution Act, 1991 of any noxious liquid substance or mixture containing such substance, whether intentional or accidental, an entry shall be made in the Cargo Record Book stating the circumstances of, and the reason for, the discharge.

(4) When a surveyor appointed or authorised by the Minister to supervise any operations under these Regulations has inspected a ship, then that surveyor shall make an appropriate entry in the Cargo Record Book.

(5) The entries in the Cargo Record Book shall be in an official language of the State whose flag the ship is entitled to fly, and, for ships holding an IPPC Certificate or a certificate referred to in Regulation 12A of these Regulations, in English or French. The entries in an official national language of the State whose flag the ship is entitled to fly shall prevail in case of a dispute or discrepancy.

(6) The Cargo Record Book shall be kept in such a place as to be readily available for inspection and, except in the case of unmanned ships under tow, shall be kept on board the ship. It shall be retained for a period of three years after the last entry has been made.

(7) The Minister may inspect the Cargo Record Book on board any ship to which these Regulations apply while the ship is in port, and may make a copy of any entry in that book and may require the master of the ship to certify that the copy is a true copy of such entry. Any copy so made which has been certified by the master of the ship as a true copy of an entry in the ship's Cargo Record Book shall be made admissible in any judicial proceedings as evidence of the facts stated in the entry. The inspection of a Cargo Record Book and the taking of a certified copy by the Minister under this paragraph shall be performed as expeditiously as possible without causing the ship to be unduly delayed.

PART IV Surveys and Certification

Surveys.

10. (1) Ships carrying noxious liquid substances in bulk shall be subject to the surveys specified below:

(a) An initial survey before the ship is put in service or before the IPPC Certificate required under regulation 11 of these Regulations is issued for the first time, which shall include a complete survey of its structure, equipment, systems, fittings, arrangements and material in so far as the ship is covered by these Regulations. This survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with the applicable requirements of these Regulations.

(b) a renewal survey at intervals specified by the Minister but not exceeding 5 years, except where Regulation 12 (2), 12 (5), 12 (6) or 12 (7) of these Regulations is applicable. The renewal survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with applicable requirements of these Regulations.

(c) An intermediate survey within 3 months before or after the second anniversary date or within 3 months before or after the third anniversary date of the IPPC Certificate which shall take the place of one of the annual surveys specified in paragraph (1) (d) of this Regulation. The intermediate survey shall be such as to ensure that the equipment and associated pump and piping systems fully comply with the applicable requirements of these Regulations and are in good working order. Such intermediate surveys shall be endorsed on the IPPC Certificate.

(d) An annual survey within 3 months before or after each anniversary date of the IPPC Certificate including a general inspection of the structure, equipment, systems, fittings, arrangements and material referred to in paragraph (1) (a) of this Regulation to ensure that they have been maintained in

accordance with paragraph (3) of this Regulation and that they remain satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the IPPC Certificate.

(e) An additional survey either general or partial, according to the circumstances, shall be made after a repair resulting from investigations prescribed in paragraph (3) of this Regulation, or whenever any important repairs or renewals are made. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship complies in all respects with the requirements of these Regulations.

(2) (a) The condition of the ship and its equipment shall be maintained to conform with the provisions of these Regulations to ensure that the ship in all respects will remain fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment.

(b) After any survey of the ship under paragraph (1) of this Regulation has been completed, no change shall be made in the structure, equipment, systems, fittings, arrangements or material covered by the survey, without the sanction of the Minister, except the direct replacement of such equipment and fittings.

(c) Whenever an accident occurs to a ship or a defect is discovered which substantially affects the integrity of the ship or the efficiency or completeness of its equipment covered by these Regulations, the master and owner of the ship shall report at the earliest opportunity to the Minister, the recognised organisation or the nominated surveyor responsible for issuing the relevant IPPC Certificate, who shall cause investigations to be initiated to determine whether a survey as required under paragraph (1) of this Regulation is necessary. If the ship is in a port of another Party, the master and owner shall also report immediately to the appropriate authorities of the port State and the nominated surveyor or recognised organisation shall ascertain that such report has been made.

Issue or endorsement of certificate.

11. (1) An IPPC Certificate shall be issued, after an initial or renewal survey in accordance with the provisions of regulation 10 of these Regulations, to any ship carrying noxious liquid substances in bulk and which is engaged in voyages to ports or terminals under the jurisdiction of other Parties.

(2) Such IPPC Certificates shall be issued or endorsed either by the Minister or by any person or organisation duly authorised by the Minister. In every case, the Minister assumes full responsibility for the Certificate.

(3) (a) The Government of another Party may, at the request of the Minister, cause a ship to be surveyed and, if satisfied that the provisions of these Regulations are complied with, shall issue or authorise the issue of an IPPC Certificate to the ship and, where appropriate, endorse or authorise the endorsement of that Certificate on the ship, in accordance with these Regulations.

(b) A copy of the IPPC Certificate and a copy of the survey report shall be transmitted as soon as possible to the Minister.

(c) An IPPC Certificate so issued shall contain a statement to the effect that it has been issued at the request of the Minister and it shall have the same force and receive the same recognition as the IPPC Certificate issued under paragraph (1) of this Regulation.

(d) An IPPC Certificate shall not be issued to a ship which is entitled to fly the flag of a State which is not a Party.

(4) The IPPC Certificate shall be drawn up in the form corresponding to the model given in the Fifth Schedule to these Regulations. If the language used is not English, the text shall include a translation into English.

(5) Notwithstanding any other provisions of the amendments to these Regulations adopted by the Marine Environment Protection Committee (MEPC) by resolution MEPC.39 (29), any IPPC Certificate, which is current when these amendments enter into force, shall remain valid until it expires under the terms of these Regulations prior to the amendments entering into force.

Duration and validity of certificate.

12. (1) An IPPC Certificate shall be issued for a period specified by the Minister, which shall not exceed 5 years from the date of issue.

(2) (a) Notwithstanding the requirements of paragraph (1) of this Regulation, when the renewal survey is completed within 3 months before the expiry date of the existing IPPC Certificate, the new IPPC Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing Certificate;

(b) When the renewal survey is completed after the expiry date of the existing IPPC Certificate, the new IPPC Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing Certificate;

(c) When the renewal survey is completed more than 3 months before the expiry date of the existing IPPC Certificate, the new IPPC Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of completion of the renewal survey.

(3) If an IPPC certificate is issued for a period of less than 5 years, the Minister may extend the validity of the Certificate beyond the expiry date to the maximum period specified in paragraph (1) of this Regulation, provided that the surveys referred to in Regulation 10 (1) (c) and 10 (1) (d) of these Regulations applicable when an IPPC Certificate is issued for a period of 5 years are carried out as appropriate.

(4) If a renewal survey has been completed and a new IPPC Certificate cannot be issued or placed on board the ship before the expiry date of the existing IPPC Certificate, the person or organisation authorised by the Minister may endorse the existing IPPC Certificate and such a certificate shall be accepted as valid for a further period which shall not exceed 5 months from the expiry date.

(5) If a ship at the time when an IPPC Certificate expires is not in a port in which it is to be surveyed, the Minister may extend the period of validity of the Certificate but this extension shall be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed, and then only in cases where it appears proper and reasonable to do so. No IPPC Certificate shall be extended for a period longer than 3 months, and a ship to which an extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port without having a new IPPC Certificate. When the renewal survey is completed, the new Certificate shall be valid to a date not exceeding 5 years from the date of expiry of the existing Certificate before the extension was granted.

(6) An IPPC Certificate issued to a ship engaged on short voyages which has not been extended under the foregoing provisions of this Regulation may be extended by the Minister for a period of grace of up to one month from the date of expiry stated on it. When the renewal survey is completed, the new IPPC Certificate shall be valid to a date not exceeding 5 years from the date of expiry of the existing Certificate before the extension was granted.

(7) In special circumstances, as determined by the Minister, a new IPPC Certificate need not be dated from the date of expiry of the existing Certificate as required by paragraph (2) (b), (5) or (6) of this Regulation. In these special circumstances, the new IPPC Certificate shall be valid to a date not exceeding 5 years from the date of completion of the renewal survey.

(8) If an annual or intermediate survey is completed before the period specified in regulation 10 of these Regulations, then:

(a) the anniversary date shown on the IPPC Certificate shall be amended by endorsement to a date which shall not be more than 3 months later than the date on which the survey was completed;

(b) the subsequent annual or intermediate survey required by Regulation 10 of these Regulations shall be completed at the intervals prescribed by that Regulation using the new anniversary date;

(c) the expiry date may remain unchanged, provided one or more annual or intermediate surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by Regulation 10 of these Regulations are not exceeded.

(9) An IPPC Certificate issued under Regulation 11 of these Regulations shall cease to be valid in any of the following cases:

(a) if the relevant surveys are not completed within the periods specified under Regulation 10 (1) of these Regulations;

(*b*) if the Certificate is not endorsed in accordance with Regulation 10 (1) (*c*) or 10 (1) (*d*) of these Regulations;

(*c*) upon transfer of the ship to the flag of another State. A new IPPC Certificate shall only be issued when the Government issuing the new Certificate is fully satisfied that the ship is in compliance with the requirements of Regulation 10 (3) (*a*) and 10 (3) (*b*) of these Regulations. In the case of a ship which has transferred from registry in another Party the Minister may request the Government of that Party within 3 months after the transfer has taken place, to transmit copies of the IPPC Certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports.

Survey and certification of chemical tankers.

12A. Notwithstanding the provisions of Regulations 10, 11 and 12 of these Regulations, chemical tankers which have been surveyed and certified by Parties in accordance with the provisions of the International Bulk Chemical Code or the Bulk Chemical Code, as applicable, shall be deemed to have complied with the provisions of the said Regulations, and the Certificate issued under that Code shall have the same force and receive the same recognition as the IPPC Certificate.

Requirements for minimising accidental pollution.

13. (1) The design, construction, equipment and operation of ships carrying noxious liquid substances of Category A, B or C in bulk, shall be such as to minimise the uncontrolled discharge into the sea of such substances.

(2) Chemical tankers constructed on or after 1 July, 1986 shall comply with the requirements of the International Bulk Chemical Code.

(3) Chemical tankers constructed before 1 July, 1986 shall comply with the following requirements:

(*a*) The following chemical tankers shall comply with the requirements of the Bulk Chemical Code as applicable to ships referred to in 1.7.2 of that Code:

(i) ships for which the building contract was placed on or after 2 November, 1973 and which are engaged on voyages to ports or terminals under the jurisdiction of other Parties; and

(ii) ships constructed on or after 1 July, 1983 which are engaged solely on voyages between ports or terminals within the State the flag of which the ship is entitled to fly.

(*b*) The following chemical tankers shall comply with the requirements of the Bulk Chemical Code as applicable to ships referred to in 1.7.3 of that Code:

(i) ships for which the building contract was placed before 2 November, 1973 and which are engaged on voyages to ports or terminals under the jurisdiction of other Parties; and

(ii) ships constructed before 1 July, 1983 which are engaged on voyages between ports or terminals within the State the flag of which the ship is entitled to fly, except that for ships of less than 1,600 tons gross tonnage compliance with the Code in respect of construction and equipment shall take effect not later than 1 July, 1994.

(4) In respect of ships other than chemical tankers carrying noxious liquid substances of Category A, B or C in bulk, the Minister shall establish appropriate measures based on the Guidelines developed by the Organisation in order to ensure that the provisions of paragraph (1) of this Regulation are complied with.

Carriage and discharge of oil-like substances.

14. Notwithstanding the provisions of other Regulations of these Regulations, noxious liquid substances designated in the Second Schedule to these Regulations as falling under the Category C or D and identified by the Organisation as oil-like substances under the criteria developed by the Organisation, may be carried on an oil-tanker as defined in the Sea Pollution (Prevention of Oil Pollution) Regulations, 1994 (No. 44 of 1994) and discharged in accordance with the provisions of those Regulations provided that all of the following conditions are complied with:

(a) the ship complies with the provisions of the Sea Pollution (Prevention of Oil Pollution) Regulations, 1994 (No. 44 of 1994) as applicable to product carriers as defined in those Regulations;

(b) the ship carries an International Oil Pollution Prevention Certificate and its Supplement B and the Certificate is endorsed to indicate that the ship may carry oil-like substances in conformity with this Regulation and the endorsement includes a list of oil-like substances the ship is allowed to carry;

(c) in the case of Category C substances the ship complies with the ship type 3 damage stability requirements of:

(i) the International Bulk Chemical Code in the case of a ship constructed on or after 1 July, 1986; or
(ii) the Bulk Chemical Code, as applicable under Regulation 13 of these Regulations, in the case of a ship constructed before 1 July, 1986; and

(d) the oil content meter in the oil discharge monitoring and control system of the ship is approved by the Minister for use in monitoring the oil-like substances to be carried.

FIRST SCHEDULE

Guidelines for the Categorisation or
Noxious Liquid Substances

Category A Substances which are bioaccumulated and liable to produce a hazard to aquatic life or human health; or which are highly toxic to aquatic life (as expressed by a Hazard Rating 4, defined by a TLM less than 1 ppm.); and additionally certain substances

which are moderately toxic to aquatic life (as expressed by a Hazard Rating 3, defined by a TLM of 1 ppm or more, but less than 10 ppm) when particular weight is given to additional factors in the hazard profile or to special characteristics of the substance.

Category B Substances which are bioaccumulated with a short retention of the order of one week or less; or which are liable to produce tainting of the sea food; or which are moderately toxic to aquatic life (as expressed by a Hazard Rating 3, defined by a TLM of 1 ppm or more, but less than 10 ppm); and additionally certain substances which are slightly toxic to aquatic life (as expressed by a Hazard Rating 2, defined by a TLM of 10 ppm or more, but less than 100 ppm) when particular weight is given to additional factors in the hazard profile or to special characteristics of the substance.

Category C Substances which are slightly toxic to aquatic life (as expressed by a Hazard Rating 2, defined by a TLM of 10 ppm or more, but less than 100 ppm); and additionally certain substances which are practically non-toxic to aquatic life (as expressed by a Hazard Rating 1, defined by a TLM of 100 ppm or more, but less than 1,000 ppm) when particular weight is given to additional factors in the hazard profile or to special characteristics of the substance.

Category D Substances which are practically non-toxic to aquatic life (as expressed by a Hazard Rating 1, defined by a TLM of 100 ppm or more, but less than 1,000 ppm); or causing deposits blanketing the sea floor with a high biochemical oxygen demand (BOD); or which are highly hazardous to human health, with an LD⁵⁰ of less than 5 mg/kg; or which produce moderate reduction of amenities because of persistency, smell or poisonous or irritant characteristics, possibly interfering with use of beaches; or which are moderately hazardous to human health, with an LD₅₀ of 5 mg/kg or more, but less than 50 mg/kg and produce slight reduction of amenities.

Other Liquid Substances (for the purposes of Regulation 4 of these Regulations)
Substances other than those categorised in Categories A, B, C and D above.

SECOND SCHEDULE

List of noxious liquid substances carried in bulk

Substance category for operational discharge by weight)	UN No.	Pollution Residual concentration (%)
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(Reg. 3 of

Annex II)

(Reg. 5 (1) of

Annex II)

(Reg. 5 (7)

of Annex II)

special areas	Within special areas	Outside
Acetaldehyde	1089	C
Acetic acid	2789	D
Acetic anhydride		D
Acetone cyanohydrin	1541	A
Acrylamide solution (50% or less)	2074	D
Acrylic acid	2218	D
Acrylonitrile	1093	B
Adiponitrile	2205	D
Alcohol (C ₁₂ —C ₁₅) poly (1-3) ethoxylates		A
Alcohol (C ₁₂ —C ₁₅) poly (3-11) ethoxylates		A
Substance		
(Reg. 3 of		
Annex II)		
(Reg. 5 (1) of		

Annex II)

(Reg. 5 (7)

of Annex II)

Alcohol (C₆—C₁₇) (secondary) poly (3–6) ethoxylates

Alcohol (C₆—C₁₇) (secondary) poly (7–12) ethoxylates

Alkyl acrylate/Vinylpyridine copolymer in toluene

Alkyl (C₉—C₁₇) benzenes

Alkyl benzene sulphonic acid

Alkyl benzene sulphonic acid, sodium salt solution

Allyl alcohol

Allyl chloride

Alluminium chloride (30% or less)/Hydrochloric acid (20% or less) solution

Aluminium sulphate solution 2-(2-Aminoethoxy) ethanol

Aminoethylethanolamine

N-Aminoethylpiperazine

2-Amino-2-methyl-1-propanol (90% or less)

Ammonia aqueous (28% or less)

2672*

C

Ammonium nitrate solution (93% or less)

Ammonium sulphate solution

Ammonium sulphide solution (45% or less)

Ammonium thiocyanate(25% or less)/Ammonium thiosulphate (20% or less) solution

Ammonium thiosulphate solution (60% or less)

n-Amyl acetate

sec-Amyl acetate

Amyl acetate, commercial

n-Amyl alcohol

sec-Amyl alcohol

Amyl alcohol, primary

Aniline

Animal and fish oils, n.o.s.

including:

Cod liver oil

Sperm oil

Aviation alkylates

(C₈ paraffins and isoparaffins BPT 95-120°C)

Benzene and mixtures having 10% benzene or more

Benzenesulphonyl chloride

Benzyl acetate

Benzyl alcohol

Benzyl chloride

Brake fluid base mix: (Poly (2-8) alkylene (C₂-C₃) glycols/Polyalkylene (C₂-C₁₀) glycols/
Monoalkyl (C₁-C₄) ethers and their borate esters)

Butene oligomer

n-Butyl acetate

sec-Butyl acetate

n-Butyl acrylate

Butylamine (all isomers)

Butylbenzenes (all isomers)

Butyl benzyl phthalate

n-Butyl butyrate

Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture

Butylene glycol

1,2- Butylene oxide

n-Butyl ether

Butyl lactate

Butyl methacrylate

n-Butyraldehyde

Butyric acid

gamma-Butyrolactone

Calcium alkyl salicylate

Calcium hydroxide slurry

Calcium hypochlorite solution (15% or less)

Calcium hypochlorite solution (more than 15%)

Calcium naphthenate in mineral oil

Camphor oil

epsilon-Caprolactam (molten or aqueous solutions)

Carbolic oil

Carbon disulphide

Carbon tetrachloride

Cashew nut shell oil
(untreated)

Chlorinated paraffins
(C₁₀-C₁₃)

Chloroacetic acid
(80% or less)

Chlorobenzene

Chloroform

Chlorohydrins (crude)

o—Chloronitrobenzene

2-or 3-Chloropropionic acid

Chlorosulphonic acid

m-Chlorotoluene

o-Chlorotoluene

p-Chlorotoluene

Chlorotoluenes

(mixed isomers)

Choline chloride solutions

Citric acid

Coal tar

Coal tar naphtha solvent

Coal tar pitch (molten)

Cobalt naphthenate in solvent naphtha

Coconut oil fatty acid

Coconut oil fatty acid methyl ester

Creosote (coal tar)

Creosote (wood)

Cresols (all isomers)

Cresylic acid, sodium salt solution

Crotonaldehyde

Cycloheptane

Cyclohexane

Cyclohexanol

Cyclohexanone

Cyclohexyl acetate

Cyclohexylamine

1,3- Cyclopentadiene dimer (molten)

Cyclopentane

Cyclopentene

p-Cymene

Decahydronaphthalene

Decanoic acid

Decene

Decyl acrylate

Decyl alcohol (all isomers)

Decylbenzene

Diacetone alcohol

Dialkyl (C₇-C₁₃) phthalates

Dibutylamine

Dibutyl phthalate

Dichlorobenzenes (all isomers)

1,1-Dichloroethane

Dichloroethyl ether

1,6-Dichlorohexane

2,2'-Dichloroisopropyl ether

Dichloromethane

2,4-Dichlorophenol

2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution

2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution (70% or less)

2,4- Dichlorophenoxyacetic acid, triisopropanolamine salt solution

1,1-Dichloropropane

1,2-Dichloropropane

1,3-Dichloropropane

1,3-Dichloropropene

Dichloropropene/

Dichloropropane mixtures

2,2- Dichloropropionic acid

Diethylamine

Diethylaminoethanol

Diethylbenzene

Diethylene glycol butyl ether acetate

Diethylene glycol dibutyl ether

Diethylene glycol ethyl ether acetate

Diethylene glycol methyl ether

Diethylene glycol methyl ether acetate

Diethylenetriamine

Di-(2-ethylhexyl) adipate

Di-(2-ethylhexyl) phosphoric acid

Diethyl phthalate

Diethyl sulphate

Diglycidyl ether of bisphenol A

Diglycidyl ether of bisphenol F

Di-n-hexyl adipate

1, 4-Dihydro-9, 10- dihydroxy anthracene, disodium salt solution

Diisobutylamine

Diisobutylene

Diisobutyl ketone

Diisobutyl phthalate

Diisodecyl phthalate

Diisononyl adipate

Diisopropanolamine

Diisopropylamine

Diisopropylbenzene (all isomers)

Diisopropyl naphthalene

N, N-Dimethylacetamide solution (40% or less)

Dimethyl adipate

Dimethylamine solution (45% or less)

Dimethylamine solution (greater than 45% but not greater than 55%)

Dimethylamine solution (greater than 55% but not greater than 65%)

N, N-Dimethylcyclohexylamine

Dimethylethanolamine

Dimethylformamide

Dimethyl glutarate

Dimethyl octanoic acid

Dimethyl phthalate

2,2-Dimethylpropane-1,3- diol

Dimethyl succinate

Dinitrotoluene (molten)

Dinonyl phthalate

1,4-Dioxane

Dipentene

Diphenyl

Diphenyl/Diphenyl ether mixtures

Diphenyl ether

Diphenyl ether/Diphenyl phenyl ether mixture

Diphenylmethane diisocyanate

Diphenylol propane- epichlorohydrin resins

Di-n-propylamine

Dipropylene glycol methyl ether

Ditridecyl phthalate

Diundecyl phthalate

Dodecene (all isomers)

Dodecenyl succinic acid,

dipotassium salt solution

Dodecyl alcohol

Dodecyl diphenyl ether

disulphonate solution

Dodecyl phenol

Drilling brines, containing zinc salts

Epichlorohydrin

Ethanolamine

2-Ethoxyethanol

2-Ethoxyethyl acetate

Ethyl acetate

Ethyl acetoacetate

Ethyl acrylate

Ethylamine

Ethylamine solutions (72% or less)

Ethyl amyl ketone

Ethylbenzene

N-Ethylbutylamine

Ethyl butyrate

Ethylcyclohexane

N-Ethylcyclohexylamine

Ethylene chlorohydrin

Ethylene cyanohydrin

Ethylenediamine

Ethylenediamine, tetraacetic acid, tetrasodium salt solution

Ethylene dibromide

Ethylene dichloride

Ethylene glycol

Ethylene glycol acetate

Ethylene glycol butyl ether acetate

Ethylene glycol diacetate

Ethylene glycol isopropyl ether

Ethylene glycol methyl butyl ether

Ethylene glycol methyl ether

Ethylene glycol methyl ether acetate

Ethylene glycol phenyl ether

Ethylene glycol phenyl ether/Diethylene glycol phenyl ether mixture

Ethylene oxide/Propylene oxide mixture with an ethylene oxide content of not more than 30% in weight

2-Ethylhexanoic acid

2-Ethylhexyl acrylate

2-Ethylhexylamine

Ethylidene norbornene

Ethyl methacrylate

o-Ethylphenol

Ethyl propionate

2-Ethyl-3-propylacrolein

Ethyltoluene

Ferric chloride solutions

Ferric hydroxyethyl ethylenediamine triacetic acid, trisodium salt solution

Ferric nitrate/Nitric acid solution

Formaldehyde solutions

(45% or less)

Formamide

Formic acid

Fumaric adduct of rosin, water dispersion

Furfural

Furfuryl alcohol

Glutaraldehyde solutions

(50% or less)

Glycidyl ester of C₁₀ trialkylacetic acid

Glyoxal solution (40% or less)

Heptane (all isomers)

n-Heptanoic acid

Heptanol (all isomers)

Heptene (all isomers)

Heptyl acetate

Hexamethylenediamine adipate (50% in water)

Hexamethylenediamine solution

Hexamethyleneimine

Hexamethylenetetramine solutions

Hexane (all isomers)

Hexanoic acid

Hexanol

Hexene (all isomers)

Hexyl acetate

Hydrochloric acid

Hydrogen peroxide solutions (over 8% but not

over 60%)

Hydrogen peroxide⁰ solutions (over 60% but not over 70%)

2-Hydroxyethyl acrylate

N-(Hydroxyethyl) ethylenediamine triacetic acid, trisodium salt solution

Isoamyl acetate

Isoamyl alcohol

Isobutyl acetate

Isobutyl acrylate

Isobutyl formate

Isobutyraldehyde

Isophorone

Isophoronediamine

Isophorone diisocyanate

Isoprene

Isopropanolamine

Isopropylamine

Isopropylbenzene

Isopropylcyclohexane

Isopropyl ether

Isovaleraldehyde

Lactic acid

Lactonitrile solution (80% or less)

Latex (ammonia inhibited)

Lauric acid

Maleic anhydride

Mercaptobenzothiazol, sodium salt solution

Mesityl oxide

Metam sodium solution

Methacrylic acid

Methacrylic resin in 1,2- dichloroethane solution

Methacrylonitrile

3-Methoxybutyl acetate

Methyl acetoacetate

Methyl acrylate

Methylamine solutions (42% or less)

Methylamyl acetate

Methylamyl alcohol

Methyl amyl ketone

Methyl butenol

Methyl tert-butyl ether

Methyl butyl ketone

Methylbutynol

Methyl butyrate

Methylcyclohexane

Methylcyclopentadiene dimer

2-Methyl-6-ethyl aniline

2-Methyl-5-ethylpyridine

Methyl formate

Methyl heptyl ketone

Methyl isobutyl ketone

Methyl methacrylate

Methylnaphthalene

2-Methyl-1-pentene

Methyl propyl ketone

2-Methylpyridine

4-Methylpyridine

N-Methyl-2-pyrrolidone

Methyl salicylate

alpha-Methylstyrene

Morpholine

Motor fuel anti-knock compounds

Naphthalene (molten)

Naphthalene sulphonic acidformaldehyde copolymer, sodium salt solution

Naphthenic acids

Neodecanoic acid

Nitrating acid (mixture of sulphuric and nitric acids)

Nitric acid (less than 70%)

Nitric acid (70% and over)

Nitrilotriacetic acid,
trisodium salt solution

Nitrobenzene

o-Nitrophenol (molten)

1- or 2-Nitropropane

Nitropropane (60%)/ Nitroethane (40%) mixture

o- or p-Nitrotoluenes

Nonane (all isomers)

Nonanoic acid (all isomers)

Nonene

Nonyl alcohol (all isomers)

Nonyl methacrylate
monomer

Nonylphenol

Nonyl phenol poly (4-12) ethoxylates

Octane (all isomers)

Octanoic acid (all isomers)

Octanol (all isomers)

Octene (all isomers)

n-Octyl acetate

Octyl aldehydes

Octyl nitrates (all isomers)

Olefin mixtures (C₅-C₇)

Olefin mixtures (C₅-C₁₅)

alpha-Olefins (C₆-C₁₈)
mixtures

Oleic acid

Oleum

Palm nut oil fatty acid

Palm oil fatty acid methyl ester

Palm stearin

Paraldehyde

Pentachloroethane

1,3-Pentadiene

Pentaethylenhexamine

Pentane (all isomers)

Pentanoic acid

Pentene (all isomers)

Perchloroethylene

Phenol

1-Phenyl-1-xylol ethane

Phosphoric acid

Phosphorus, yellow or white

Phthalic anhydride (molten)

Pinene

Polyalkylene glycol butyl ether

Polyethylene polyamines

Polyferric sulphate solution

Polymethylene polyphenyl isocyanate

Polypropylene glycol

Potassium hydroxide solution

n-Propanolamine

beta-Propiolactone

Propionaldehyde

Propionic acid

Propionic anhydride

Propionitrile

n-Propyl acetate

n-Propylamine

n-Propylbenzene

n-Propyl chloride

Propylene dimer

Propylene glycol ethyl ether

Propylene glycol methyl ether

Propylene glycol monoalkyl ether

Propylene oxide

Propylene tetramer

Propylene trimer

Pyridine

Rosin

Rosin soap

(disproportionated) solution

Silicon tetrachloride

Sodium aluminate solution

Sodium borohydride (15% or less)/Sodium hydroxide solution

Sodium carbonate solution

Sodium dichromate solution
(70% or less)

Sodium hydrogen sulphite solution (35% or less)

Sodium hydrosulphide/

Ammonium sulphide solution

Sodium hydrosulphide solution (45% or less)

Sodium hydroxide solution

Sodium hypochlorite solution (15% or less)

Sodium nitrite solution

Sodium silicate solution

Sodium sulphide solution

Sodium sulphite solution

Sodium thiocyanate solution (56% or less)

Styrene monomer

Sulpholane

Sulphuric acid

Sulphuric acid, spent

Tall oil (crude and distilled)

Tall oil fatty acid (resin acids less than 20%)

Tall oil soap
(disproportionated) solution

Tallow

Tallow fatty acid

Tetrachloroethane

Tetraethylenepentamine

Tetrahydrofuran

Tetrahydronaphthalene

1,2,3,5-Tetramethylbenzene

Titanium tetrachloride

Toluene

Toluenediamine

Toluene diisocyanate

o-Toluidine

Tributyl phosphate

1,2,4-Trichlorobenzene

1,1,1-Trichloroethane

1,1,2-Trichloroethane

Trichloroethylene

1,2,3-Trichloropropane

1,1,2-Trichloro-1,2,2-trifluoro-ethane

Tricresyl phosphate (containing less than 1% ortho-isomer)

Tricresyl phosphate
(containing 1% or more ortho-isomer)

Triethanolamine

Triethylamine

Triethylbenzene

Triethylene glycol ethyl ether

Triethylene glycol methyl ether

Triethylenetetramine

Trimethylacetic acid

Trimethylamine

Trimethyl benzenes (all isomers)

Trimethylhexamethylene diamine (2,2,4- and 2, 4, 4-isomers)

Trimethylhexamethylene diisocyanate (2,2,4- and 2,4,4-isomers)

Trimethylol propane polyethoxylate

2,2,4-Trimethyl-1,3-pentane-diol-

1-isobutyrate

Tripropylene glycol methyl ether

Trixylyl phosphate

Turpentine

Undecanoic acid

1-Undecane

Undecyl alcohol

Urea/Ammonium mono- and di-hydrogen phosphite/Potassium chloride solution

Urea/Ammonium nitrate solution

Urea/Ammonium solution (containing aqua ammonia)

Urea/Ammonium phosphate solution

n-Valeraldehyde

Vegetable oil, n.o.s., including:

Castor oil

Coconut oil

Corn oil

Cottonseed oil

Groundnut oil

Linseed oil

Olive oil

Palm nut oil

Palm oil

Rape seed oil

Rice bran oil

Safflower oil

Sesame oil

Soya bean oil

Sunflower oil

Tung oil

Vinyl acetate

Vinyl ethyl ether

Vinylidene chloride

Vinyl neodecanoate

Vinyltoluene

White spirit, low (15-20%) aromatic

Xylenes

Xylenol

*UN no. refers to 10-35%.

†UN no. 1114 applies to benzene.

*UN no. 2574 applies to tricresyl phosphate containing more than 3% ortho-isomer.

Pollution Category in brackets indicates that the substance has been provisionally included in this list and that further data are necessary in order to complete the evaluation of its

environmental hazards, particularly in relation to living resources. Until the hazard evaluation is completed the Pollution Category assigned shall be used.

THIRD SCHEDULE

List of other liquid substances

Substance

Acetone

Acetonitrile

Alcoholic beverages, n.o.s.

Alcohols (C₁₃ and above)

Aminoethyldiethanolamine/Aminoethylethanolamine solution 2-Amino-2-hydroxymethyl-1,3-propanediol solution (40% or less) tert-Amyl alcohol

1105

Apple juice

Behenyl alcohol

Benzene tricarboxylic acid, trioctyl ester

n-Butyl alcohol

sec-Butyl alcohol

tert-Butyl alcohol

Butyl stearate

Calcium carbonate slurry

Calcium nitrate/Magnesium nitrate/Potassium chloride solution

Cetyl/Eicosyl methacrylate mixture

Cetyl/Stearyl alcohol

Chlorinated paraffins (C₁₄-C₁₇) (with 52% chlorine)

Clay slurry

Coal Slurry

Dextrose solution

Diethanolamine

Diethyl ether

Diethylene glycol

Diethylene glycol butyl ether

Diethylene glycol diethyl ether

Diethylene glycol ethyl ether

Diethylenetriamine pentaacetic acid, pentasodium salt solution

Diheptyl phthalate

Dihexyl phthalate

Diisooctyl phthalate

Dioctyl phthalate

Dipropylene glycol

Dodecane (all isomers)

Dodecylbenzene

Dodecyl methacrylate

Dodecyl/Pentadecyl methacrylate mixture

Drilling brines:

Calcium bromide solution

Calcium chloride solution

Sodium chloride solution

Ethyl alcohol

Ethylene carbonate

Ethylene glycol butyl ether

Ethylene glycol tert-butyl ether

Ethylene-vinyl acetate copolymer (emulsion)

Fatty acid (saturated, C₁₃ and above)

Glucose solution

Glycerine

Glycerol polyalkoxylate

Glyceryl triacetate

Glycine, sodium salt solution

Hexamethylene glycol

Hexylene glycol

Isobutyl alcohol

Isopropyl acetate

Isopropyl alcohol

Kaolin slurry

Lard

Latex:

Carboxylated styrene-butadiene copolymer

Styrene-butadiene rubber

Lignin sulphonic acid, sodium salt solution

Magnesium chloride solution

Magnesium hydroxide slurry

3-methoxy-1-butanol

Methyl acetate

Methyl alcohol

Methyl ethyl ketone

2-Methyl-2-hydroxy-3-butyne

3-Methyl-3-methoxy butanol

3-Methyl-3-methoxy butyl acetate

Molasses

Octyl decyl adipate

alpha-Olefins (C₁₃-C₁₈)

Olefins (C₁₃ and above, all isomers)

n-Paraffins (C₁₀-C₂₀)

Paraffin wax

Petrolatum

Polyaluminium chloride solution

Polybutene

Polyethylene glycol dimethyl ether

Polyethylene glycols

Polypropylene glycol methyl ether

Polysiloxane

n-Propyl alcohol

Propylene glycol

Propylene-butylene copolymer

Sodium aluminosilicate slurry

Sodium chlorate solution (50% or less)

Sorbitol solution

Surphur (molten)

Tetraethylene glycol

Tridecane

Tridecanoic acid

Triethylene glycol

Triethylene glycol butyl ether

Triisopropanolamine

Tripropylene glycol

Urea formaldehyde resin solution

Urea solution

Vegetable protein solution (hydrolyzed)

Water

FOURTH SCHEDULE

Form of Cargo Record Book

Cargo Record Book for Ships Carrying Noxious Liquid Substances in Bulk

Name of ship

.....

Distinctive number or letters

.....

Gross tonnage

.....

Period from to

.....

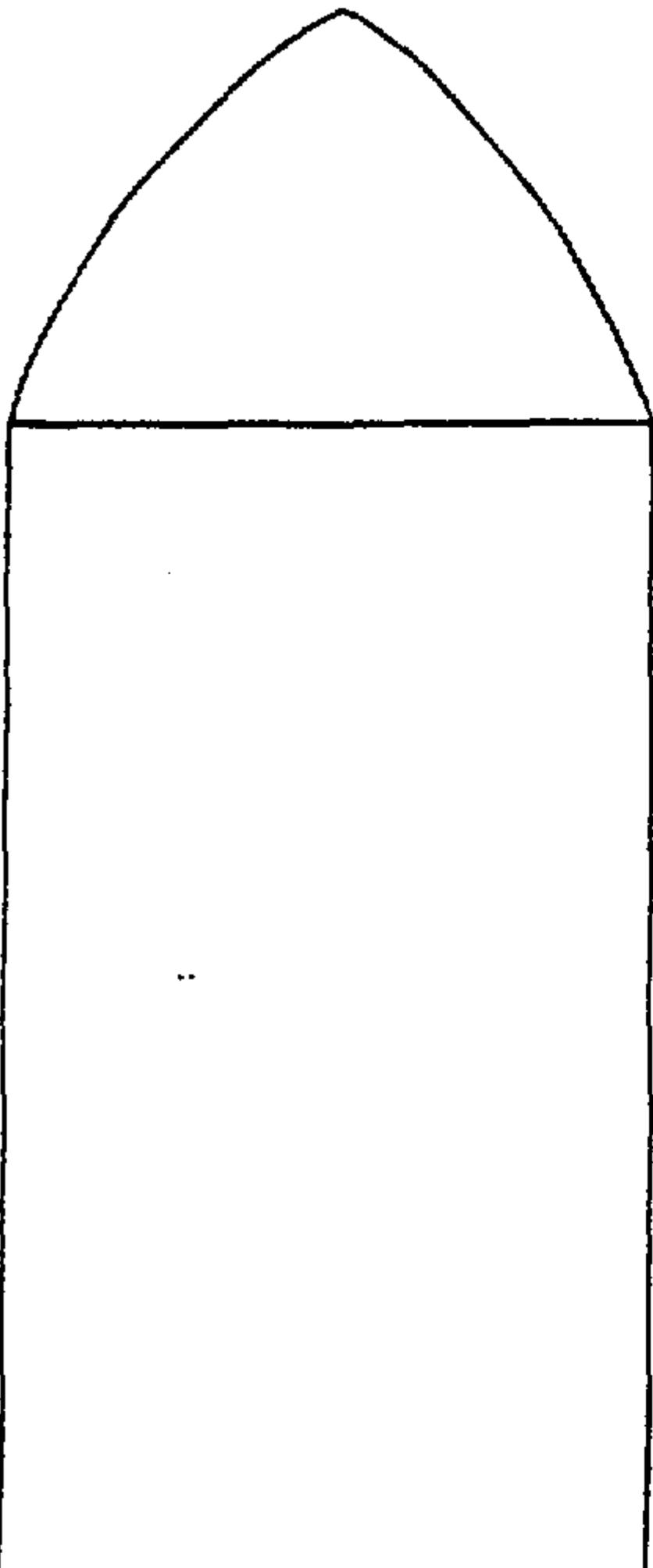
Note: Every ship carrying noxious liquid substances in bulk shall be provided by the owner with a Cargo Record Book to record relevant cargo/ballast operations.

Name of ship

Distinctive number or letters

Plan View of Cargo and Slop Tanks

(to be completed on board)



Ideas

INTRODUCTION

The following pages show a comprehensive list of items of cargo and ballast operations which are, when appropriate, to be recorded in the Cargo Record Book on a tank-to-tank basis in accordance with paragraph (2) of Regulation 9 of Annex II of the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 relating thereto (Marpol 73/78). The items have been grouped into operational sections, each of which is denoted by a letter.

When making entries in the Cargo Record Book, the date, operational code and item number shall be inserted in the appropriate columns and the required particulars shall be recorded chronologically in the blank spaces.

Each completed operation shall be signed for and dated by the officer or officers in charge and, if applicable, by a surveyor authorised by the competent authority of the State in which the ship is unloading.

Each completed page shall be countersigned by the master of the ship. Entries in the Cargo Record Book are required only for operations involving Categories A, B, C and D substances.

List of items to be recorded

Entries are required only for operations involving Categories A, B, C and D substances.

(A) Loading of cargo

1. Place of loading.
2. Identify tank(s), name of substance(s) and category(ies).

(B) Internal transfer of cargo

3. Name and category of cargo(es) transferred.
4. Identity of tanks:

.1 from:

.2 to:

5. Was (were) tank(s) in 4.1 emptied?
6. If not, quantity remaining in tank(s).

(C) Unloading of cargo

7. Place of unloading.
8. Identity of tank(s) unloaded.
9. Was (were) tank(s) emptied?

- .1 If yes, confirm that the procedure for emptying and stripping has been performed in accordance with the ship's Procedures and Arrangements Manual (i.e. list, trim, stripping temperature).
- .2 If not, quantity remaining in tank(s).

10. Does the ship's Procedures and Arrangements Manual require a prewash with subsequent disposal to reception facilities?

11. Failure of pumping and/or stripping system:

- .1 time and nature of failure;
- .2 reasons for failure;
- .3 time when the system has been made operational.

(D) Mandatory prewash in accordance with the ship's Procedures and Arrangements Manual

12. Identify tank(s), substance(s) and category(ies).

13. Washing method:

- .1 number of washing machines per tank;
- .2 duration of wash/washing cycles;
- .3 hot/cold wash.

14. Prewash slops transferred to:

- .1 reception facility in unloading port (identify port);
- .2 reception facility otherwise (identify port).

(E) Cleaning of cargo tanks except mandatory prewash (other prewash operations, final wash, ventilation etc.)

15. State time, identify tank(s), substance(s) and category(ies) and state:

- .1 washing procedure used;
- .2 cleaning agent(s) (identify agent(s) and quantities);
- .3 dilution of cargo residues with water (state how much water used (only Category D substances));
- .4 ventilation procedure used (state number of fans used, duration of ventilation).

16. Tank washings transferred:

- .1 into the sea;
- .2 to reception facility (identify port);
- .3 to slops collecting tank (identify tank).

(F) Discharge into the sea of tank washings

17. Identify tank(s):

- .1 Were tank washings discharged during cleaning of tank(s)? If so at what rate?
- .2 Were tank washing(s) discharged from a slops collecting tank? If so, state quantity and rate of discharge.

18. Time pumping commenced and stopped.

19. Ship's speed during discharge.

(G) Ballasting of cargo tanks

20. Identity of tank(s) ballasted.

21. Time at start of ballasting.

(H) Discharge of ballast water from cargo tanks

22. Identity of tank(s).

23. Discharge of ballast:

- .1 into the sea;
- .2 to reception facilities (identify port).

24. Time ballast discharge commenced and stopped.

25. Ship's speed during discharge.

(I) Accidental or other exceptional discharge

26. Time of occurrence.

27. Approximate quantity, substance(s) and category(ies).

28. Circumstances of discharge or escape and general remarks.

(J) Control by authorised surveyors

29. Identify port.

30. Identify tank(s), substance(s), category(ies) discharged ashore.

31. Have tank(s), pump(s), and piping system(s) been emptied?

32. Has a prewash in accordance with the ship's Procedures and Arrangements Manual been carried out?

33. Have tank washings resulting from the prewash been discharged ashore and is the tank empty?

34. An exemption has been granted from mandatory prewash.

35. Reasons for exemption.

36. Name and signature of authorised surveyor.

37. Organization, company, government agency for which surveyor works.

(K) Additional operational procedures and remarks

Name of ship.....

Distinctive number or letters.....

Cargo/Ballast Operations

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge/name of and signature of authorised surveyor
------	---------------	---------------	---

Signature of master.....

FIFTH SCHEDULE

Form of Certificate

International Pollution Prevention

Certificate for the Carriage of

Noxious Liquid Substances in Bulk

(Official Stamp)

Endorsement for Annual and Intermediate Surveys

THIS IS TO CERTIFY that at a survey required by regulation 10 of Annex II of the Convention the ship was found to comply with the relevant provisions of the regulation:

Annual survey: Signed.....

(Signature of duly authorised official)

(Official Stamp)

Date.....

Annual*/Intermediate* Survey

(Official Stamp)

Annual*/intermediate* Survey

(Official Stamp)

Annual*/Intermediate* Survey

(Official Stamp)

Place.....

Signed.....

(Signature of)

Place.....

Date.....

Signed.....

(Signature of)

Place.....

Date.....

Signed.....

(Signature of)

Place.....

Date.....

*Delete as appropriate.

GIVEN under my Official Seal, this 18th day of February, 1994.

DAVID ANDREWS,

Minister for the Marine.

EXPLANATORY NOTE.

These Regulations (S.I. No. 46 of 1994) give effect to Annex II of the International Convention for the Prevention of Pollution from Ships adopted by the International Maritime Organisation on 2 November, 1973 and as amended by its Protocol adopted on 17 February, 1978, and as further amended by resolutions adopted by the Marine Environment Protection Committee (MEPC) of the International Maritime Organisation.

The Regulations apply to all Irish ships carrying noxious liquid substances in bulk wherever they may be and to all other ships carrying noxious liquid substances in bulk when they are in the territorial waters of the State.

Noxious liquid substances are divided into four categories A, B, C and D according to the severity of the hazard which they present to human health and the marine environment,

category A presenting the worst hazard and category D the least. Under the Regulations discharges into the sea of these substances or mixtures of them are prohibited except when the discharges are made under specified conditions. These conditions vary according to the degree of hazard posed to the marine environment. The most stringent controls apply in two recognised "special areas", namely the Baltic Sea and the Black Sea.

The Regulations require ships to follow specified procedures when washing cargo tanks in accordance with the category of the substance and the geographical location. They also provide for adequate facilities at ports, terminals or repair ports for the reception of residues or mixtures of noxious liquid substances.

Under the Regulations ships are required to be surveyed, to carry an International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk, and to be maintained in accordance with that Certificate. Ships are also required to carry a Cargo Record Book in which to record operations involving cargoes of noxious liquid substances.

Section 29 of the Sea Pollution Act, 1991 provides for penalties for breaches of these Regulations.