STATUTORY INSTRUMENTS

# 1987 No. 551

# **MARINE POLLUTION**

The Merchant Shipping (Control of Pollution by Noxious Liquid Substances in Bulk) Regulations 1987

Made	-	-	-	-		26th March 1987
Coming	into	force		-	-	6th April 1987

The Secretary of State for Transport, in exercise of the powers conferred on him by article 3 of the Merchant Shipping (Prevention and Control of Pollution) Order 1987(1) and of all other powers enabling him in that behalf, hereby makes the following Regulations:—

# PART I

# GENERAL

## Citation, commencement and interpretation

**1.**—(1) These Regulations may be cited as the Merchant Shipping (Control of Pollution by Noxious Liquid Substances in Bulk) Regulations 1987 and shall come into force on 6th April 1987.

(2) In these Regulations—

"BCH Code" means the Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (1986 edition) published by IMO;

"BCH Code Certificate" means a certificate of compliance with the BCH Code issued in accordance with the BCH Code Regulations;

"BCH Code Regulations" means the Merchant Shipping (BCH Code) Regulations 1987(2);

"Category A substance", "Category B substance", "Category C substance" and

"Category D substance" mean respectively any substance listed in the column of Schedule 1 headed "Substance" and identified as falling into Category A, B, C or D as the case may be by an entry of "A", "B", "C" or "D" as the case may be in column II of that schedule; and any substance which is provisionally listed or class-approved as a Category A, B, C or D substance as the case may be; and a reference to any such substance shall include a reference to any

<sup>(1)</sup> S.I.1987/470.

<sup>(2)</sup> S.I. 1987/550.

mixture containing such substance, other than a residual mixture or a mixture which is itself a substance of another Category;

"chemical tanker" means a ship constructed or adapted primarily to carry a cargo of noxious liquid substances in bulk and an oil tanker when carrying a cargo or part cargo of noxious liquid substances in bulk;

"class-approved" means, in relation to a substance of a particular category or a non-polluting substance,

- (a) having been assessed as a substance falling into one of the classes of not otherwise specified substances listed in Table 3 of Merchant Shipping Notice No. M1270 and therein identified as a class of substances falling into that category or as a class of nonpolluting substances as the case may be, and
- (b) having had the assessment referred to in sub-paragraph (a) approved by or on behalf of the Secretary of State or by or on behalf of the government of a state party to MARPOL 1973/78.

"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;

"constructed" means, in relation to a ship, having its keel laid or being at a similar stage of construction; and "similar stage of construction" means the stage at which

- (a) construction identifiable with a specific ship begins, and
- (b) assembly of that ship is commenced comprising at least 50 tonnes or 1 per cent of the estimated mass of all structural material, whichever is the less;

provided that a ship which has been converted into a chemical tanker shall, irrespective of its date of construction, be treated as a chemical tanker constructed on the date on which such conversion commenced;

"high residue substance" means, in relation to a Category B or Category C substance, a substance identified in the ship's Procedures and Arrangements Manual as likely, due to its viscosity or melting point at its unloading temperature, to result in a residue quantity from any tank which exceeds, in the case of a Category B substance, 1 cubic metre or 1/3,000th of the capacity of that tank or, in the case of a Category C substance, 3 cubic metres or 1/1,000th of the capacity of that tank, whichever is the greater;

"IBC Code" means the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (1986 edition) published by IMO;

"IBC Code Certificate" means a certificate of compliance with the IBC Code issued in accordance with the IBC Code Regulations;

"IBC Code Regulations" means the Merchant Shipping (IBC Code) Regulations 1987(3);

"IMO" means the International Maritime Organization;

"IMO Standards" means the Standards for Procedures and Arrangements for the Discharge of Noxious Liquid Substances adopted by the Marine Environ-ment Protection Committee of IMO by Resolution MEPC 18(22) on 5th December 1985;

"INLS Certificate" means an International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk issued under MARPOL 1973/78 and, in the case of a United Kingdom ship, in accordance with regulation 24, in the form set out in Appendix V to Annex II to MARPOL 1973/78;

<sup>(</sup>**3**) S.I. 1987/549.

"IOPP Certificate" means an International Oil Pollution Prevention Certificate issued in accordance with MARPOL 1973/78 and, in the case of a United Kingdom ship, pursuant to the Prevention of Oil Pollution Regulations;

"liquid substance" means a substance having a vapour pressure not exceeding 2.8 bar at a temperature of 37.8 degrees C;

"MARPOL 1973/78" means the International Convention for the Prevention of Pollution from Ships, 1973, as amended(4);

"Marpol surveyor" means a surveyor appointed by the Secretary of State or by or on behalf of the government of a state party to MARPOL 1973/78;

"nearest land": in relation to all land other than the part of Australia specified below, "from the nearest land" means from the nearest baseline from which the territorial sea of any territory is established in accordance with the Geneva Convention on the Territorial Sea and the Contiguous Zone 1958(**5**); and in relation to the part of the north-eastern coast of Australia which lies between the points 11° 00'S, 142° 08'E and 24° 42'S, 153° 15'E, "from the nearest land" means from the nearest of the straight lines joining consecutively the following points: 11° 00'S, 142° 08'E; 10° 35'S, 141° 55'E; 10° 00'S, 142° 00'E; 9° 10'S, 143° 52'E; 9° 00'S, 144° 30'E; 13° 00'S, 144° 00'E; 15° 00'S, 146° 00'E; 18° 00'S, 147° 00'E; 21° 00'S, 153° 00'E and 24° 42'S, 153° 15'E;

"non-polluting substance" means a substance listed in Schedule 2 or provisionally listed or class-approved as a non-polluting substance;

"noxious liquid substances" means the substances listed in Schedule 1 (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;

"oil tanker" means a ship constructed or adapted primarily to carry oil in bulk in its cargo spaces and includes a combination carrier when it is carrying a cargo or part cargo of oil in bulk;

"oil-like substance" means a substance listed in Schedule 3 or provisionally listed as an oillike substance;

"Prevention of Oil Pollution Regulations" means the Merchant Shipping (Prevention of Oil Pollution) Regulations 1983(6);

"pre-washed" means washed in accordance with the relevant pre-wash procedures specified in the ship's Procedures and Arrangements Manual;

"Procedures and Arrangements Manual" means a manual complying with the requirements of regulation 19(1);

"provisionally listed" means, in relation to a substance of a particular category or a nonpolluting substance or an oil-like substance, listed in Merchant Shipping Notice No. M.1270 and therein identified as a substance falling into that category or as a non-polluting substance or as an oil-like substance as the case may be;

"reception facility" means a tank or similar facility provided at a port or place for the reception of residual mixtures or other liquid wastes containing noxious liquid substances;

"residual mixture" 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;

"sea" includes all waters navigable by sea-going ships;

<sup>(4)</sup> Cmnd. 5748; the Convention was amended in 1978 (Cmnd. 7347) and by amendments adopted by the Marine Environment Protection Committee of the International Maritime Organization on 5th December 1985.

<sup>(5)</sup> Cmnd. 2511.

<sup>(6)</sup> S.I. 1983/1398, amended by S.I. 1985/2040.

"segregated ballast" means ballast water introduced into a tank which is permanently allocated to the carriage of ballast or to the carriage of ballast or cargoes other than oil or noxious liquid substances and which is completely separated from the cargo pumping and piping system and from the fuel oil pumping and piping system;

"ship" means a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, hovercraft, submersibles and floating craft and also fixed or floating platforms except when they are actually engaged in exploration or exploitation of the sea-bed or associated off-shore processing of sea-bed mineral resources;

"Special Area" means either the Baltic Sea area or the Black Sea area, defined as follows:

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

"UKOPP Certificate" means a United Kingdom Oil Pollution Prevention Certificate issued pursuant to the Prevention of Oil Pollution Regulations;

"unassessed liquid substance" means a liquid substance which is neither a noxious liquid substance nor a non-polluting substance and is not oil as defined in the Prevention of Oil Pollution Regulations;

"United Kingdom ship" means a ship which-

- (a) is registered in the United Kingdom, or
- (b) is not registered under the law of any country but is wholly owned by persons each of whom is a British citizen or a body corporate which is established under the law of a part of the United Kingdom and has its principal place of business in the United Kingdom.

(3) Any reference to a particular Merchant Shipping Notice includes a reference to any subsequent Merchant Shipping Notice amending or replacing it and specifying the date on which such subsequent Notice is to take effect.

#### Application

**2.**—(1) These Regulations apply to ships carrying in bulk noxious liquid substances or unassessed liquid substances; provided that ships constructed before 1st July 1986 shall not be required to comply with regulations 5(c) or 11(d) before 1st January 1988.

(2) These Regulations apply to United Kingdom ships wherever they may be and to other ships while they are in the United Kingdom or the territorial waters thereof.

# PART II

# DISCHARGE AND WASHING OF TANKS

## Category A substances—discharge

3. The discharge into the sea of a Category A substance is prohibited.

#### Category A-tank washing in all areas

**4.**—(1) A tank from which a Category A substance has been unloaded shall be washed before the ship leaves the port of unloading.

(2) The resulting tank washings shall be discharged into a reception facility at that port and washing and discharge shall, subject to paragraph (5), continue until the washings at the point of discharge into the reception facility are at or below the concentration ("the prescribed concentration") prescribed for the substance in question—

- (a) if the ship is not in a Special Area, in column III of Schedule 1 hereto; or
- (b) if the ship is in a Special Area, in column IV of Schedule 1 hereto.

(3) After the tank washings at the point of discharge into the reception facility reach a level of concentration at or below the prescribed concentration, discharge from the tank shall be continued until the tank is empty.

(4) The level of concentration of the Category A substance in the washings at the point of discharge shall be ascertained by analysis of samples taken at that point and verified by a Marpol surveyor or, where there is no Marpol surveyor at that port, by the master.

(5) Where a Marpol surveyor at the port of unloading, or where there is no Marpol surveyor at that port, the master, is satisfied that it is not practicable to measure such level of concentration without undue delay to the ship at that port, the requirements of paragraph (2) shall be sufficiently complied with if—

- (a) the tank is pre-washed in accordance with the procedures specified for that tank and substance in the Procedures and Arrangements Manual, and
- (b) the Marpol surveyor at the port of unloading or, where there is no Marpol surveyor at that port, the master, records in the Cargo Record Book that
  - (i) the tank and its pumps and piping systems have been emptied, and
  - (ii) the pre-wash has been carried out in accordance with the pre-wash procedure approved for that tank and that substance in the ship's Procedures and Arrangements Manual, and
  - (iii) the tank washings resulting from such pre-wash have been discharged to a reception facility and the tank is empty.

#### Category A residual mixtures—discharge

5. The discharge into the sea of a Category A residual mixture is prohibited except where all the following conditions are satisfied:

- (a) the effluent consists solely of water added to the tank after it has been emptied in accordance with regulation 4(3) or 4(5); and
- (b) the ship is proceeding at a speed of at least 7 knots in the case of a self-propelled ship or at least 4 knots in the case of a ship which is not self-propelled; and
- (c) the discharge is made below the water line; and
- (d) 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.

## Category B and C substances—discharge

6. The discharge into the sea of a Category B or Category C substance is prohibited.

## Category B and C—unloading in all areas

7. Whenever a Category B substance or a Category C substance is unloaded, unloading shall if possible be carried out in accordance with the relevant provisions of the ship's Procedures and Arrangements Manual.

#### Category B and C—tank washing outside Special Areas

**8.** Where a Category B substance or a Category C substance is unloaded at a port which is not within a Special Area, then—

- (a) if it was impossible for unloading to be carried out as required by regulation 7 or to the satisfaction of a Marpol surveyor, or
- (b) in any case where the substance in question is a high residue substance,

every tank from which such substance has been unloaded shall be pre-washed and the resulting tank washings shall be discharged into a reception facility at the port of unloading.

#### Category B-tank washing in Special Areas

**9.** Where a Category B substance is unloaded at a port in a Special Area, every tank from which such substance has been unloaded shall be pre-washed and the resulting tank washings shall be discharged into a reception facility at the port of unloading unless—

- (a) unloading was carried out as required by regulation 7 or to the satisfaction of a Marpol surveyor, and
- (b) the substance is not a high residue substance, and
- (c) the residues are to be retained on board for discharge outside a Special Area.

## Category C-tank washing in Special Areas

**10.** Where a Category C substance is unloaded at a port in a Special Area every tank from which such substance has been unloaded shall be pre-washed and the resulting tank washings shall be discharged to a reception facility at the port of unloading unless—

- (a) unloading was carried out as required by regulation 7 or to the satisfaction of a Marpol surveyor, and
- (b) either
  - (i) the substance is a Category C substance identified in the ship's Procedures and Arrangements Manual as likely to result in a residue quantity from any one tank which does not exceed one cubic metre or 1/3,000th of the capacity of that tank, whichever is the greater, or
  - (ii) the substance is not a high residue substance and the residues are to be retained on board for discharge outside a Special Area.

## Category B and C residual mixtures—discharge

**11.**—(1) The discharge into the sea of a Category B residual mixture or a Category C residual mixture is prohibited except where all the following conditions are complied with:

- (a) all relevant requirements of regulations 7 to 10 have been complied with;
- (b) the concentration of the substance in, and the rate of discharge of, the effluent is in accordance with the procedures and arrangements specified in respect of substances of the category in question in the ship's Procedures and Arrangements Manual;
- (c) the ship is proceeding at a speed of at least 7 knots in the case of a self-propelled ship or at least 4 knots in the case of a ship which is not self-propelled;
- (d) the discharge is made below the water line;
- (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; and

- (f) (i) if the ship is in a Special Area and the substance in question is a Category B substance, the tank from which the discharge is made has been pre-washed (whether or not such pre-wash was required by regulation 9) in accordance with the procedure specified in the ship's Procedures and Arrangements Manual for the substance in question and the resulting tank washings have been discharged to a reception facility; or
  - (ii) if the ship is in a Special Area and the substance is a Category C substance the maximum quantity of the substance discharged from any one tank and its associated piping system does not exceed the maximum quantity approved in the ship's Procedures and Arrangements Manual for discharge of Category C substances in a Special Area.

(2) Where a tank which contained a Category B or Category C residual mixture has been emptied by a discharge made in accordance with paragraph (1), water thereafter added to that tank may be discharged notwithstanding that the ship is not proceeding as required by sub-paragraph (1)(c), provided that all the other requirements of that paragraph are complied with.

## Category D substances—discharge

12. The discharge into the sea of a Category D substance is prohibited.

## Category D residual mixtures—discharge

13. The discharge into the sea of a Category D residual mixture is prohibited except where—

- (a) (i) the ship is proceeding on its way at a speed of at least 7 knots in the case of a self-propelled ship or at least 4 knots in the case of a ship which is not self-propelled;
  - (ii) the concentration of the substance in the effluent is not greater than one part of the substance to ten parts of water; and
  - (iii) the discharge is made at a distance of not less than 12 nautical miles from the nearest land; or
- (b) the discharge is made in accordance with regulation 11 as it applies to Category C residual mixtures.

## Unassessed liquid substances—discharge

**14.** The discharge into the sea of any unassessed liquid substance carried in bulk, or of a residual mixture containing any such substance, is prohibited except where—

- (a) the Secretary of State has given written approval to its carriage; and
- (b) any conditions relating to discharge and subject to which that approval was given are complied with.

#### Clean and segregated ballast and non-polluting liquid substances—discharge

**15.** Nothing in these Regulations shall prohibit the discharge of clean ballast, segregated ballast or any non-polluting substance.

## **Emergency discharges**

**16.** Regulations 3, 5, 6 and 11 to 14 shall not apply to any discharge into the sea of a noxious liquid substance or unassessed liquid substance or mixture containing any such substance—

(a) which is necessary for the purpose of securing the safety of a ship or saving life at sea, or

- (b) which results from damage to a ship or its equipment, provided that
  - (i) all reasonable precautions were taken after the occurrence of the damage or discovery of the discharge to prevent or minimise the discharge; and
  - (ii) neither the owner nor the master acted either with intent to cause damage, or recklessly and with knowledge that damage would probably result, or
- (c) where the substance or mixture in question is approved by the Secretary of State for use in combating specific pollution incidents in order to minimise the damage from pollution and the discharge is made with the approval of the Secretary of State or, if the discharge is to be made in waters within the jurisdiction of a state other than the United Kingdom, with the approval of the government of that state.

#### Exemption—Categories A, B and C

**17.** Notwithstanding the provisions of regulations 3—11 any tank from which a Category A or Category B or Category C substance has been unloaded shall not be required to be washed and the resultant washings discharged before the ship leaves the port of unloading as required by those regulations if a Marpol surveyor at the port of unloading exempts the ship from those regulations on one of the following grounds:—

- (a) the tank is to be re-loaded with the same substance or another substance compatible with it and the tank will not be washed or ballasted before such re-loading;
- (b) (i) the tank is neither to be washed nor ballasted at sea; and
  - (ii) the requirements for washing and discharge will be complied with in respect of that tank at another port; and
  - (iii) it has been confirmed in writing to the satisfaction of the Secretary of State, or if the port is not in the United Kingdom, of the government or other proper authority of the state in which the port is situated, that an adequate reception facility will be available for the purpose at that other port; or
- (c) the substance is one for which cleaning by ventilation is stated to be appropriate in the ship's Procedures and Arrangements Manual or is approved by the Secretary of State.

## **Oil-like substances**

**18.** Notwithstanding the provisions of regulations 6—13 an oil-like substance may be carried on an oil tanker and discharged in accordance with regulation 13 of the Prevention of Oil Pollution Regulations provided that:

- (a) the ship complies with the requirements of those regulations applicable to product carriers as therein defined (oil tankers engaged in the trade of carrying oil other than crude oil); and
- (b) (i) where the substance in question is a Category C substance and the ship was constructed on or after 1st July 1986, it complies with the damage stability requirements for a Type 3 ship specified in the IBC Code; or
  - (ii) where the substance in question is a Category C substance and the ship is
    - (I) a ship for which the building contract was placed on or after 2nd November 1973 and which is engaged wholly or partly on voyages to ports or terminals under the jurisdiction of states parties to MARPOL 1973/78 other than the state in which the ship is registered, or
    - (II) a United Kingdom ship constructed on or after 1st July 1983 engaged solely on voyages between ports or terminals in the United Kingdom, the Channel Islands and the Isle of Man,

it complies with the damage stability requirements for a Type 3 ship specified in the BCH Code; and

- (c) the oil content meter in the ship's oil discharge and monitoring system required by regulation 15(3) of the Prevention of Oil Pollution Regulations is approved by the Secretary of State, or by or on behalf of the government of the state in which the ship is registered, for use in monitoring the concentration of the substance in question; and
- (d) the ship carries an IOPP Certificate or a UKOPP Certificate, in either case with the supplement thereto entitled "Record of Construction and Equipment for Oil Tankers"; and
- (e) the IOPP Certificate or the UKOPP Certificate as the case may be is endorsed by the Secretary of State, or by or on behalf of the government of the state in which the ship is registered, to indicate that the ship may carry oil-like substances in conformity with Regulation 14 of Annex II to MARPOL 1973/78 and the list in such endorsement of the oil-like substances which the ship is permitted to carry includes the substance in question.

# PART III

## DOCUMENTS

#### **Procedures and Arrangements Manual**

**19.**—(1) Every ship shall be provided with a Procedures and Arrangements Manual complying with the IMO Standards.

(2) Such manual shall be approved, in the case of a United Kingdom ship, by the Secretary of State or, in the case of a ship registered in a state party to MARPOL 1973/78, by or on behalf of the government of that state.

(3) A manual approved in accordance with paragraph (2) shall be deemed to comply with the IMO Standards.

(4) The Procedure and Arrangements Manual shall be kept on board the ship in such a place as to be radily available for inspection.

(5) The Procedure and Arrangements Manual shall, in the case of a United Kingdom ship, be in English and, in the case of any other ship, be in, or include a translation into, English or French.

## **Cargo Record Book**

**20.**—(1) Every ship shall be provided with a Cargo Record Book in the form specified in Appendix IV to Annex II to MARPOL 1973/78.

(2) Whenever any of the following operations takes place in respect of any noxious liquid substance a record of the operation shall be made in the Cargo Record Book in relation to each tank affected by the operation:

(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 of residues into the sea in accordance with regulations 5, 11, 13, 14 or 16;

(ix) removal of residues by ventilation.

(3) In the event that any discharge of the kind referred to in regulation 16 of any noxious liquid substance or mixture containing such substance is made or occurs, an entry shall be made without delay in the Cargo Record Book stating the circumstances of, and the reason for, the discharge.

(4) The entries in the Cargo Record Book, in the case of a United Kingdom ship, shall be in English and, in the case of any other ship, in an official language of the state in which the ship is registered and, where that language is neither English nor French, in English or French. Each entry shall be signed by the officer or officers in charge of the operation and each page shall be signed by the master.

(5) 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 on board the ship for a period of 3 years after the last entry in it has been made.

# PART IV

# CONSTRUCTION AND EQUIPMENT

#### **Pumping arrangements**

**21.**—(1) In every ship constructed on or after 1st July 1986 the pumping and piping arrangements serving any tank designated for the carriage of a Category B substance or a Category C substance shall be such that, if the tank were filled with water and pumped out under favourable pumping conditions, the quantity of residue retained in the tank's associated piping and in the immediate vicinity of the 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) In every ship constructed before 1st July 1986 the pumping and piping arrangements serving any tank designated for the carriage of a Category B substance or a Category C substance shall be such that if the tank were filled with water and pumped out under favourable pumping conditions—

- (a) the quantity of residue retained in the tank's associated piping and in the immediate vicinity of the tank's suction point would not exceed—
  - (i) in the case of a tank designated for the carriage of a Category B substance, 0.3 cubic metres, or
  - (ii) in the case of a tank designated for the carriage of a Category C substance, 0.9 cubic metres; or
- (b) until 2nd October 1994 (on which date this sub-paragraph shall cease to have effect) the quantity of residue retained in the tank and its associated pumping system, when added to the surface residue assessment of the tank calculated in accordance with Appendix A to the IMO Standards would not exceed—
  - (i) in the case of a tank designated for the carriage of a Category B substance, 1 cubic metre or 1/3,000th of the capacity of the tank, whichever is the greater, or
  - (ii) in the case of a tank designated for the carriage of a Category C substance, 3 cubic metres or 1/1,000th for the capacity of the tank, whichever is the greater.

(3) The Secretary of State may exempt from any of the requirements of this regulation any ship which is so constructed and operated that—

- (a) ballasting of cargo tanks is not required, and
- (b) cargo tank washing is required only for the purposes of repair or dry docking,

subject to such conditions as he thinks fit.

(4) An exemption granted in accordance with Regulation 5A(6) or (7) of MARPOL 1973/78 by or on behalf of a state party to MARPOL 1973/78 to a ship registered in that state shall be treated as equivalent to an exemption granted by the Secretary of State.

## **Equipment and arrangements**

**22.** Every ship shall be provided with the equipment and arrangements identified in its Procedures and Arrangements Manual and, where such manual does not comply with regulation 19, with any other equipment and arrangements required to conform to the IMO Standards.

# PART V

## SURVEYS AND RELATED MATTERS

## **Survey requirements**

**23.**—(1) The structure, equipment, systems, fittings, arrangements and materials of a ship shall be subjected to the following surveys:

- (a) an initial survey before the INLS Certificate is issued for the first time, which shall include a complete examination of its structure, equipment, systems, fittings, arrangements and materials in so far as the ship is covered by these Regulations; an initial survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and materials comply with the applicable provisions of these Regulations;
- (b) a periodical survey at intervals not exceeding 5 years which shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and materials comply with the applicable provisions of these Regulations;
- (c) a minimum of one intermediate survey during the period of validity of the INLS Certificate; in cases where only one such intermediate survey is carried out in any one certificate validity period, it shall be held not before 6 months prior to, nor later than 6 months after, the half-way date of the certificate's period of validity; intermediate surveys, shall be such as to ensure that the equipment and associated pumps and piping systems comply with the applicable provisions of these Regulations and are in good working order; a record of such surveys in the form appropriate to an intermediate survey included in the form entitled "Endorsement for Annual and Intermediate Surveys" set out in Appendix V of Annex II to MARPOL 1973/78 shall be endorsed by the surveyor on the INLS Certificate;
- (d) an annual survey within 3 months before or after the anniversary date of the INLS Certificate which shall include a general examination to ensure that the structure, equipment, systems, fittings, arrangements and materials remain in all respects satisfactory for the service for which the ship is intended; a record of such survey in the form appropriate to an annual survey included in the form entitled "Endorsement for Annual and Intermediate Surveys" set out in Appendix V of Annex II to MARPOL 1973/78 shall be endorsed by the survey on the INLS Certificate;
- (e) an additional survey, either general or partial according to the circumstances, shall be made when it has been determined under regulation 25(3) to be necessary, or whenever any important repairs or renewals are made; such a survey shall ensure that the necessary

repairs or renewals have been effectively made, that the materials and workmanship of such repairs or renewals are satisfactory, and that the ship is fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment; a record of such survey shall be endorsed by the surveyor on the INLS Certificate, stating that on completion of the survey the ship complied with the relevant provisions of Annex II to MARPOL 1973/78.

(2) Every such survey in the case of a United Kingdom ship shall be carried out by a surveyor appointed by the Secretary of State; and application for such a survey shall be made by or on behalf of the owner to the Secretary of State.

(3) In the case of a chemical tanker in respect of which a BCH Code Certificate or an IBC Code Certificate has been or is to be issued any initial, periodical, intermediate, annual or additional survey required by this regulation may be combined respectively with an initial, periodical, intermediate, annual or additional survey required by regulation 4 of the BCH Code Regulations or regulation 4 of the IBC Code Regulations as the case may be; and in such case references in paragraphs (1)(a) to (e) to the INLS Certificate shall be construed as references to the BCH Code Certificate or IBC Code Certificate as the case may be.

## **Issue of INLS Certificate**

**24.**—(1) Upon satisfactory completion of an initial or periodical survey the Secretary of State shall issue to a ship which complies with the relevant requirements of these Regulations (except one to which a BCH Code Certificate or an IBC Code Certificate is to be issued) an INLS Certificate. Such certificate shall be issued for a period not exceeding 5 years beginning on the date of completion of the survey in question.

(2) Where a chemical tanker in respect of which a BCH Code Certificate or an IBC Code Certificate has been or is to be issued is so constructed, equipped and arranged that it would, but for the exception contained in paragraph (1), be entitled under that paragraph to an INLS certificate covering substances other than those listed in the BCH Code or the IBC Code as the case may be, the Secretary of State shall, if the owner of the chemical tanker so requests, include in the BCH Code Certificate or IBC Code Certificate as the case may be, provisions covering carriage of those substances by that chemical tanker.

(3) An INLS Certificate shall cease to be valid-

- (a) if any survey required by regulation 23(1)(c) or (d) is not completed within the period specified for that survey; or
- (b) if any survey required by regulation 23(1)(e) is not completed within such reasonable time as the surveyor may specify; or
- (c) upon transfer of the ship to registry in another state.

(4) In either of the cases specified in sub-paragraphs (a) or (b) of paragraph (2) the owner shall deliver up the certificate issued in relation to the ship to the Secretary of State on demand.

(5) In the case of a ship which has transferred from registry in another state party to MARPOL 1973/78 to registry in the United Kingdom the Secretary of State may, subject to such requirements as to survey or otherwise as he may think fit, if he is satisfied that, notwithstanding that the surveys were not carried out by a surveyor appointed by the Secretary of State as required by regulation 23(2)—

- (a) the ship has already been subjected to a satisfactory initial or periodical survey and to any intermediate, annual or additional surveys required; and
- (b) the ship was issued by or on behalf of the government of that other state with an INLS Certificate which would, but for the change of registry, have remained valid; and
- (c) the condition of the ship and its equipment has been maintained in conformity with the provisions of these Regulations; and

 (d) since completion of the surveys referred to in sub-paragraph (a) no change has been made in the structure, equipment, systems, fittings, arrangements and materials covered by those surveys without the sanction of the government of that other state or of the Secretary of State, except by direct replacement;

issue to that ship an INLS Certificate for a period to be determined by the Secretary of State, but expiring not later than the expiry date of the certificate referred to in sub-paragraph (b).

(6) The INLS Certificate shall be kept on board the ship and shall be available for inspection at all reasonable times.

#### Maintenance of condition after survey

**25.**—(1) The condition of the ship and its equipment shall be maintained so as to conform to the provisions of these Regulations.

(2) After any survey of the ship under regulation 23 has been completed, no change shall be made in the structure, equipment, systems, fittings, arrangements and materials covered by the survey, without the sanction of the Secretary of State, except by direct replacement.

(3) Whenever an accident occurs to a ship or a defect is discovered, either of which substantially affects the integrity of the ship or the efficiency or completeness of the equipment required by these Regulations, the master or owner of the ship shall report at the earliest opportunity to the Secretary of State, who shall, in the case of a United Kingdom ship, determine whether an additional survey is necessary. If the ship is in a port of another state the master or owner shall also report immediately to the appropriate authority of the government of the state in which the port is situated.

#### Equivalents

**26.** Where these Regulations require that a particular fitting, material, appliance or apparatus should be fitted in a ship, the Secretary of State may allow any other fitting, material, appliance or apparatus to be fitted if he is satisfied that such fitting, material, appliance or apparatus is at least as effective as that required by these Regulations.

### **Exemptions**

**27.** The Secretary of State may exempt any ship or class or description of ship from any of the requirements of these Regulations, subject to such conditions as he may specify, and may alter or cancel any exemption so granted.

# PART VI

## OFFENCES AND PENALTIES

#### Prohibition on uncertificated carriage

**28.**—(1) No ship shall load in bulk or carry in bulk any Category A, B, C or D substance unless—

- (a) (i) there is in force in respect of that ship a valid INLS Certificate or BCH Code Certificate or IBC Code Certificate covering the substance in question or, where the substance is class-approved, the class in question, and
  - (ii) the loading and carriage is in accordance with the terms of that certificate, and
  - (iii) where the substance is class-approved, there is on board the ship documentary evidence of the assessment and approval referred to in sub-paragraphs (a) and (b) respectively of the definition of "class-approved" in regulation 1(2); or

- (b) the substance is an oil-like substance and
  - (i) there is in force in respect of the ship a valid IOPP Certificate or UKOPP Certificate with the endorsement specified in regulation 18(e) covering the substance in question, and
  - (ii) the loading and carriage is in accordance with the terms of that certificate and endorsement.

(2) No ship shall carry a class-approved non-polluting substance unless there is on board the ship documentary evidence of the assessment and approval referred to in sub-paragraphs (a) and (b) respectively of the definition of "class approved" in regulation 1(2).

- (3) No ship shall carry an unassessed liquid substance in bulk unless—
  - (a) either the Secretary of State, or the government of a state party to MARPOL 1973/78 with the concurrence of the Secretary of State, has given written permission for its carriage; and
  - (b) any conditions subject to which that permission was given are complied with.

#### Penalties

**29.**—(1) If any ship fails to comply with any of the requirements of these Regulations the owner and master of the ship shall each be guilty of an offence punishable on summary conviction by a fine not exceeding  $\pounds 1,000$  or, on conviction on indictment, by a fine.

(2) It shall be a defence for a person charged under this regulation to show that he took all reasonable steps to ensure that the Regulations were complied with.

#### Detention

**30.** In any case where a ship does not comply with the requirements of these Regulations the ship shall be liable to be detained and section 692(1) to (3) of the Merchant Shipping Act 1894(7) (which relates to the detention of a ship) shall have effect in relation to the ship, subject to the modification that for the words "this Act" wherever they appear, there shall be substituted "the Merchant Shipping (Prevention of Pollution by Noxious Liquid Substances in Bulk) Regulations 1987".

Signed by authority of the Secretary of State

Michael Spicer Parliamentary Under Secretary of State, Department of Transport

26th March 1987

## SCHEDULE 1

Regs 1(2), 2 to 13, 16, 17 and 28

# LIST OF NOXIOUS LIQUID SUBSTANCES CARRIED IN BULK

Substance	UN Number I	Pollution Category for operational discharge II	Residual concentration (percent by weight) III Outside special areas	IV Within special areas
Acetaldehyde	1089	С	1	1
Acetic acid	2789** 2790**	С		
Acetic anhydride	1715	С		
Acetone cyanohydrin	1541	А	0.1	0.05
Acetophenone		D		
Acetyl chloride	1717	С		
Acrylamide solution (50% or less)	2074	D		
Acrylic acid	2218	D		
Acrylonitrile	1093	В		
Adiponitrile	2205	D		
Alcohols, $C_4$ , $C_5$ , $C_6$ mixtures		D		
Alcohols, $C_5$ , $C_6$ as individual alcohols		D		
Alcohols, $C_7$ , $C_8$ , $C_9$ as individuals and mixtures		С		
Alcohols, $C_{10}$ , $C_{11}$ , $C_{12}$ as individuals and mixtures		В		
Alcohol ethoxylate (higher secondary)		D		

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution	Residual	
		Category for operational	concentration (percent by	
	Ι	discharge II	weight) III Outside	IV Within
Alashal (C /		В	special areas	special areas
Alcohol ( $C_{13}$ / $C_{15}$ ) poly(3—11) ethoxylates		D		
Alkyl acrylate vinyl pyridine copolymer in toluene		С		
Alkylamine mixtures		С		
Alkyl (C <sub>9</sub> — C <sub>17</sub> ) benzene mixtures (straight or branched chain)		D		
Alkyl benzene sulphonate (branched chain)		В		
Alkyl benzene sulphonate (straight chain)		С		
Alkyl benzene sulphonic acid	2584 2586	С		
Allyl alcohol	1098	В		
Allyl chloride	1100	В		
2-(2- Aminoethoxy) ethanol	3055	D		
Aminoethylethanc	olamine	D		
<i>N</i> - Aminoethylpipera	2815 zine	D		
Ammonia aqueous (28% or less)	2672****	С		

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution Category for operational discharge	Residual concentration (percent by weight)	
	Ι	II	III Outside special areas	IV Within special areas
Ammonium nitrate solution (93% or less)	2426	D		
Ammonium sulphate solution		D		
Ammonium sulphide solution (45% or less)	2683	В		
Amyl acetate, commercial	1104	С		
<i>n</i> -Amyl acetate	1104	С		
sec-Amyl acetate	1104	С		
<i>n</i> -Amyl alcohol	1105	D		
sec-Amyl alcohol	1105	D		
Amyl alcohol, primary	1105	D		
Aniline	1547	С		
Benzaldehyde	С			
Benzene and mixtures having 10% benzene or more	1114*****	С		
Benzene sulphonyl chloride	2225	D		
Benzyl acetate		С		
Benzyl alcohol		С		
Benzyl chloride	1738	В		
Butene oligomer		D		
<i>n</i> -Butyl acetate	1123	С		
sec-Butyl acetate	1123	D		
<i>n</i> -Butyl acrylate	2348	D		

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number I	Pollution Category for operational discharge II	Residual concentration (percent by weight) III Outside	IV Within
	1		special areas	special areas
Butylamine (all isomers)	1125 (normal) 1214 (iso)	С		
Butyl benzyl phthalate		А	0.1	0.05
<i>n</i> -Butyl butyrate		В		
Butyl/Decyl/ Cetyl/Eicosyl methacrylate mixture		D		
Butylene glycol		D		
1,2-Butylene oxide	3022	С		
<i>n</i> -Butyl ether	1149	С		
Butyl lactate		D		
Butyl methacrylate		D		
<i>n</i> -Butyraldehyde	1129	В		
Butyric acid	2820	В		
gamma- Butyrolactone		D		
Calcium alkyl salicylate		D		
Calcium chloride solution		D		
Calcium hydroxide solution		D		
Calcium hypochlorite solution		В		
Calcium naphthenate in mineral oil		A	0.1	0.05

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution Category for	Residual concentration	
		operational	(percent by	
	Ι	discharge II	weight) III Outside	IV Within
	1	11	special areas	special areas
Camphor oil	1130	В		
Caprolactam		D		
Carbolic oil		А	0.1	0.05
Carbon disulphide	1131	А	0.01	0.005
Carbon tetrachloride	1846	В		
Cashew nut shell oil (untreated)		D		
Castor oil		D		
Chloroacetic acid	1750	С		
Chloroacetone	1695	С		
Chlorobenzene	1134	В		
Chloroform	1888	В		
1-Chloroheptane		А	0.1	0.05
Chlorohydrins, crude		D		
<i>o</i> - Chloronitrobenzen	1578 ne	В		
2- Chloropropionic acid	2511	С		
3- Chloropropionic acid		С		
Chlorosulphonic acid	1754	С		
<i>m</i> -Chlorotoluene	2238	В		
o-Chlorotoluene	2238	А	0.1	0.05
<i>p</i> -Chlorotoluene	2238	В		

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number I	Pollution Category for operational discharge II	Residual concentration (percent by weight) III Outside special areas	IV Within special areas
Chlorotoluene (mixed isomers)	2238	А	0.1	0.05
Choline chloride solution		D		
Citric acid		D		
Coal tar naphtha solvent		В		
Cobalt naphthenate in solvent naphtha		A	0.1	0.05
Coconut oil		D		
Coconut oil, fatty acid methyl ester		D		
Cod liver oil		D		
Corn oil		D		
Cotton seed oil		D		
Creosote (coal tar)		С		
Creosote (wood)		А	0.1	0.05
Cresol (mixed isomers)	2076	А	0.1	0.05
Cresyl diphenyl phosphate		А	0.1	0.05
Cresylic acid	2022	А	0.1	0.05
Crotonaldehyde	1143	В		
Cycloheptane	2241	D		
Cyclohexane	1145	С		
Cyclohexane/ Cyclohexanol mixture		С		
Cyclohexanol		С		

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution Category for	Residual concentration	
		operational	(percent by	
	Ι	discharge II	weight) III Outside	IV Within
	1	11	special areas	special areas
Cyclohexanone	1915	D		
Cyclohexylamine	2357	С		
<i>p</i> -Cymene	2046	С		
Decahydronaphtha	lene7	D		
<i>n</i> -Decaldehyde	В			
Decane		D		
Decene		В		
Decyl acrylate		А	0.1	0.05
Decyl alcohol (all isomers)		В		
Diacetone alcohol	1148	D		
Dialkyl (C <sub>7</sub> —C <sub>9</sub> ) phthalates		D		
Dialkyl (C <sub>9</sub> —C <sub>13</sub> ) phthalates		D		
Dibenzyl ether		С		
Dibutylamine		С		
Dibutyl phthalate		А	0.1	0.05
<i>m</i> - Dichlorobenzene		В		
<i>o-</i> Dichlorobenzene	1591	В		
1,1- Dichloroethane	2362	В		
1,2- Dichloroethylene	1150	D		
Dichloroethyl ether	1916	В		
1,6- Dichlorohexane		В		

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution Category for operational discharge	Residual concentration (percent by weight)	<b>11 / 11</b> /-1 ·
	Ι	II	III Outside special areas	IV Within special areas
2,2- Dichloroisopropyl ether	2490	С	•	-
Dichloromethane	1593	D		
2,4- Dichlorophenol	2021	Α	0.1	0.05
2,4- Dichlorophenoxya acid	cetic	Α	0.1	0.05
2,4- Dichlorophenoxya acid, diethanolamine salt solution	cetic	А	0.1	0.05
2,4- Dichlorophenoxya acid, dimethylamine salt (70% or less) solution	cetic	А	0.1	0.05
2,4- Dichlorophenoxya acid, triisopropanolamir salt solution		A	0.1	0.05
1,1- Dichloropropane		В		
1,2- Dichloropropane	1279	В		
1,3- Dichloropropane		В		
1,3- Dichloropropene	2047	В		
Dichloropropene/ Dichloropropane mixtures	В			

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution Category for	Residual concentration	
		operational	(percent by	
	-	discharge	weight)	
	Ι	II	III Outside special areas	IV Within special areas
2,2- Dichloropropionic acid		D		Speerin areas
Dichloropropyl ether		В		
Diethylamine	1154	С		
Diethylaminoethar	ഫ്686	С		
Diethylbenzene	2049	С		
Diethyl carbonate	2366	D		
Diethylene glycol dibutyl ether		D		
Diethylene glycol butyl ether acetate		D		
Diethylene glycol ethyl ether acetate		D		
Diethylene glycol methyl ether		С		
Diethylene glycol methyl ether acetate		D		
Diethylenetriamine	e 2079	D		
Di(2-ethylhexyl) adipate		D		
Di(2-ethylhexyl) phosphoric acid	1902	С		
Di(2-ethylhexyl) phthalate		D		
Diethyl malonate		С		
Diethyl phthalate		С		
Diethyl sulphate	1594	В		
Diglycidyl ether	В			

of Bisphenol A

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10-35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution Category for operational discharge	Residual concentration (percent by weight)	
	Ι	II	III Outside special areas	IV Within special areas
1,4-Dihydro-9,10- dihydroxy anthracene, disodium salt solution		D		
Diisobutylamine	2361	С		
Diisobutylene	2050	В		
Diisobutyl ketone	1157	D		
Diisobutyl phthalate		В		
Diisodecyl phthalate		D		
Diisononyl adipate		D		
Diisononyl phthalate		D		
Diisopropanolamir	ie	С		
Diisopropylamine	1158	С		
Diisopropylbenzen (all isomers)	e	Α	0.1	0.05
Diisopropyl naphthalene		D		
Dimethyl acetamide		В		
Dimethylamine solution (45% or less)	1160	С		
Dimethylamine solution (greater than 45% but not greater than 55%)	1160	С		
Dimethylamine solution (greater	1160	С		

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

0.1.4				
Substance	UN Number	Pollution Category for operational discharge	Residual concentration (percent by weight)	
	Ι	II	III Outside special areas	IV Within special areas
than 55% but not greater than 65%)				
<i>N,N</i> - Dimethylcyclohex	2264 ylamine	С		
Dimethylethanola	m <b>205</b> 1	D		
Dimethylformamie	d@265	D		
Dimethyl phthalate		С		
Dinitrotoluene (molten)	1600	В		
Dinonyl phthalate		D		
1,4-Dioxane	1165	D		
Dipentene	2052	С		
Diphenyl/ Diphenyl oxide mixtures		А	0.1	0.05
Diphenyl ether		А	0.1	0.05
Diphenylmethane diisocyanate	2489	В		
Diphenyl oxide/ Diphenyl ether mixture		А	0.1	0.05
Di— <i>n</i> - propylamine	2383	С		
Dipropylene glycol methyl ether		D		
Ditridecyl phthalate		D		
Diundecyl phthalate		D		
Divinyl acetylene		D		

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution Category for operational discharge	Residual concentration (percent by weight)	
	Ι	II	III Outside special areas	IV Within special areas
Dodecane		D		
Dodecene (all isomers)		В		
Dodecyl alcohol		В		
Dodecylbenzene		С		
Dodecyl diphenyl oxide disulphonate solution		В		
Dodecylphenol		А	0.1	0.05
Epichlorohydrin	2023	С		
Ethanolamine	2491	D		
2-Ethoxyethanol	1171	D		
2-Ethoxyethyl acetate	1172	С		
Ethyl acetate	1173	D		
Ethyl acetoacetate		D		
Ethyl acrylate	1917	В		
Ethylamine	1036	С		
Ethylamine solutions (72% or less)	2270	С		
Ethyl amyl ketone	2271	С		
Ethylbenzene	1175	С		
<i>N</i> - Ethylbutylamine	С			
Ethylcyclohexane	D			
<i>N</i> - Ethylcyclohexylan	nine	D		
Ethylene chlorohydrin	1135	С		

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution Category for operational discharge	Residual concentration (percent by weight)	
	Ι	II	III Outside special areas	IV Within special areas
Ethylene cyanohydrin		D		
Ethylenediamine	1604	С		
Ethylenediamine, tetraacetic acid, tetrasodium salt solution		D		
Ethylene dibromide	1605	В		
Ethylene dichloride	1184	В		
Ethylene glycol		D		
Ethylene glycol methyl butyl ether		D		
Ethylene glycol acetate		D		
Ethylene glycol butyl ether acetate		D		
Ethylene glycol methyl ether	1188	D		
Ethylene glycol methyl ether acetate	1189	D		
Ethylene glycol phenyl ether		D		
Ethylene glycol phenyl ether/ Diethylene glycol phenyl ether mixture		D		
Ethylene oxide/ Propylene oxide mixtures with an ethylene oxide content of not	2983	D		

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution Category for operational discharge	Residual concentration (percent by weight)	
	Ι	II	III Outside special areas	IV Within special areas
more than 30% by weight			1	1
2-Ethylhexanoic acid		D		
2-Ethylhexyl acrylate		D		
2- Ethylhexylamine	2276	В		
Ethylidene norbornene		В		
Ethyl lactate	1192	D		
Ethyl methacrylate	2277	D		
o-Ethyl phenol		А	0.1	0.05
2-Ethyl-3- propylacrolein		В		
Ethyltoluene		В		
Fatty alcohols $(C_{12} - C_{20})$		В		
Ferric chloride solution	2582	С		
Ferric hydroxyethyl ethylenediamine triacetic acid, trisodium salt solution		D		
Fish oil		D		
Formaldehyde solutions (45% or less)	1198 2209	С		
Formamide		D		
Formic acid	1779	D		

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution Category for operational discharge	Residual concentration (percent by weight)	
	Ι	II	III Outside special areas	IV Within special areas
Fumaric adduct of rosin, water dispersion		В		1
Furfural	1199	С		
Furfuryl alcohol	2874	С		
Glutaraldehyde solutions (50% or less)		D		
Glycidyl ester of C <sub>10</sub> tryalkyl acetic acid		В		
Ground nut oil		D		
Heptanoic acid		D		
Heptanol (all isomers)		С		
Heptene (mixed isomers)		С		
Heptyl acetate		В		
Hexahydrocymene	;	С		
Hexamethylenedia solution	n1i7a&3	С		
Hexamethylenedia adipate (50% in water)	mine	D		
Hexamethyleneimi	in2493	С		
1-Hexanol	2282	D		
1-Hexene	2370	С		
Hexyl acetate	1233	В		
Hydrochloric acid	1789	D		
Hydrogen peroxide solutions (over	2015	С		

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number I	Pollution Category for operational discharge II	Residual concentration (percent by weight) III Outside special areas	IV Within special areas
60% but not over 70%)				
Hydrogen peroxide solutions (over 8% but not over 60%)	2014 2984	С		
2-Hydroxyethyl acrylate		В		
<i>N</i> -(Hydroxyethyl) ethylene diamine triacetic acid, trisodium salt solution		D		
Iron chloride, copper chloride mixture		А	0.1	0.05
Isoamyl acetate	1104	С		
Isoamyl alcohol	1105	D		
Isobutyl acetate	1213	С		
Isobutyl acrylate	2527	D		
Isobutyl formate	2393	D		
Isobutyl formate/ Isobutanol mixtures		С		
Isobutyl methacrylate	2283	D		
Isobutyraldehyde	2045	С		
Isodecaldehyde		С		
Isodecyl acrylate		А	0.1	0.05
Isononanoic acid		D		
Isooctane	1262	D		
Isopentane	1265	D		

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

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Substance	UN Number	Pollution Category for operational discharge	Residual concentration (percent by weight)	
	Ι	II	III Outside special areas	IV Within special areas
Isophorone		D		
Isophorone diamine	2289	D		
Isophorone diisocyanate	2290	В		
Isoprene	1218	С		
Isopropanolamine		С		
Isopropylamine	1221	С		
Isopropylbenzene	1918	В		
Isopropyl cyclohexane		D		
Isopropyl ether	1159	D		
Isovaleraldehyde	2058	С		
Lactic acid		D		
Lactonitrile solution (80% or less)		В		
Latex (ammonia inhibited)		D		
Linseed oil		D		
Maleic anhydride	2215	D		
Mercaptobenzothia sodium salt solution	azol,	В		
Mesityl oxide	1229	D		
Methacrylic acid	2531	D		
Methacrylic resin in 1,2- Dichloroethane solution		D		
Methacrylonitrile		В		

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number I	Pollution Category for operational discharge II	Residual concentration (percent by weight) III Outside special areas	IV Within special areas
Methanethiol		А	0.1	0.05
3-Methoxybutyl acetate	2708	D		
Methyl acrylate	1919	С		
Methylamine solutions (42% or less)	1235	С		
Methylamyl acetate	1233	С		
Methylamyl alcohol	2053	С		
Methyl amyl ketone	1110	С		
Methyl benzoate	2938	В		
Methyl <i>tert</i> -butyl ether	2398	D		
2-Methyl butyraldehyde		С		
4,4'-Methylene dianiline and its higher molecular weight polymers/o- Dichlorobenzene mixtures		В		
Methylethanolami	ne	С		
2-Methyl-6- ethylaniline	С			
Methyl ethyl ketone	1193	D		
2-Methyl-5-ethyl pyridine	2300	В		
Methyl formate	1243	D		

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution	Residual	
Substance		Category for operational discharge	concentration (percent by weight)	
	Ι	II	III Outside special areas	IV Within special areas
Methyl isobutyl ketone	1245	D		
Methyl methacrylate	1247	D		
<i>alpha-</i> Methylnaphthalene	A	0.1	0.05	
<i>beta-</i> Methylnaphthalene	e	А	0.1	0.05
Methyl naphthalene		А	0.1	0.05
2-Methyl-1- pentene	2288	С		
Methylpropyl ketone	1249	D		
2-Methylpyridine	2313	В		
4-Methylpyridine	2313	В		
<i>N</i> -Methyl-2- pyrrolidone		В		
Methyl salicylate		В		
<i>alpha-</i> Methylstyrene	2303	А	0.1	0.05
Morpholine	2054	D		
Motor fuel anti- knock compounds	1649	А	0.1	0.05
Naphthalene (molten)	2304	А	0.1	0.05
Naphthenic acids		А	0.1	0.05
Neodecanoic acid		В		
Nitrating acid (mixture of sulphuric and nitric acids)	1796	С		

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number I	Pollution Category for operational discharge II	Residual concentration (percent by weight) III Outside	IV Within
Nitric acid (less than 70%)	2031	С	special areas	special areas
Nitric acid (70% and over)	2031	С	2032	
Nitrilotriacetic acid, trisodium salt solution		D		
Nitrobenzene	1662	В		
Nitroethane	2842	D		
Nitromethane	1261	D		
<i>o</i> -Nitrophenol (molten)	1663	В		
1-or 2- Nitropropane	2608	D		
Nitropropane (60%)/ Nitroethane (40%) mixture	1993	D		
Nitrotoluenes	1664	С		
Nonane	1920	D		
Nonanoic acid		D		
Nonene		В		
Nonyl alcohol		С		
Nonylphenol		А	0.1	0.05
Nonylphenol poly (4—12) ethoxylates		В		
9,12- Octadecadienoic acid (Linoleic acid)		D		
9,12,15- Octadecatrienoic		D		

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

	-	_		
Substance	UN Number	Pollution Category for operational discharge	Residual concentration (percent by weight)	
	Ι	II	III Outside special areas	IV Within special areas
acid (Linolenic acid)			special areas	special areas
Octane	1262	D		
Octanol (all isomers)		С		
Octene (all isomers)		В		
<i>n</i> -Octyl acetate		D		
Octyl decyl phthalate		D		
Olefins, straight chain, mixtures		В		
Olefins (C <sub>6</sub> —C <sub>8</sub> mixtures)		В		
<i>alpha</i> Olefins $(C_6 - C_{18})$ mixtures		В		
Oleic acid		D		
Oleum	1831	С		
Olive oil		D		
Oxalic acid (10— 25%)		D		
Palm nut oil		D		
Palm oil		D		
Palm oil, methyl ester		D		
Palm stearin		D		
<i>n</i> -Paraffins (C <sub>10</sub> - C <sub>20</sub> )		D		
Paraldehyde	1264	С		
Pentachloroethane	1669	В		

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number I	Pollution Category for operational discharge II	Residual concentration (percent by weight) III Outside	IV Within
1,3-Pentadiene		С	special areas	special areas
Pentaethylenehexa Tetraethylenepenta mixture		D		
<i>n</i> -Pentane	1265	С		
1-Pentanol	1105	D		
2-Pentanol	1105	D		
3-Pentanol	1105	D		
Pentene (all isomers)		С		
Perchloroethylene	1897	В		
Phenol	2312	В		
1-Phenyl-1-xylyl ethane		С		
Phosphoric acid	1805	D		
Phosphorus, yellow or white	2447	А	0.01	0.005
Phosphorus oxy- chloride	1810	D		
Phosphorus trichloride	1809	D		
Phthalic anhydride	2214	С		
Pinene	2368	А	0.1	0.05
Polyalkylene glycol butyl ether		D		
Polyethylene polyamines	2734 2735	С		
Polymethylene polyphenyl isocyanate	2206 2207	D		

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution Category for	Residual concentration	
		operational	(percent by	
	Ι	discharge II	weight) III Outside	IV Within
	1	11	special areas	special areas
Polypropylene glycols		D		
Potassium hydroxide solution	1814	С		
Potassium silicate solution		D		
<i>n</i> -Propanolamine		С		
<i>beta-</i> Propiolactone		D		
Propionaldehyde	1275	D		
Propionic acid	1848	D		
Propionic anhydride	2496	С		
Propionitrile	2404	С		
<i>n</i> -Propyl acetate	1276	D		
<i>n</i> -Propyl alcohol	1274	D		
<i>n</i> -Propylamine	1277	С		
<i>n</i> -Propyl benzene	2364	С		
<i>n</i> -Propyl chloride	1278	В		
Propylene dimer		С		
Propylene glycol ethyl ether		D		
Propylene glycol methyl ether		D		
Propylene oxide	1280	D		
Propylene trimer	2057	В		
Pyridine	1282	В		
Rape seed oil		D		
Rice bran oil		D		

 $\star$   $\,$   $\,$  UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number I	Pollution Category for operational discharge II	Residual concentration (percent by weight) III Outside special areas	IV Within special areas
Rosin		A	0.1	0.05
Rosin soap (disproportionated) solution	)	В		
Safflower oil		D		
Sesame oil		D		
Silicon tetrachloride	1818	D		
Sodium aluminate solution	1819	С		
Sodium borohydride (15% or less)/Sodium hydroxide solution		С		
Sodium dichromate solution (70% or less)		В		
Sodium hydrogen sulphite solution	2693	D		
Sodium hydrosulphide solution (45% or less)	2949	В		
Sodium hydrosulphide/ Ammonium sulphide solution		В		
Sodium hydroxide solution	1824	D		
Sodium hypochlorite	1791	В		

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution	Residual	
		Category for operational	(percent by	
	Ŧ	discharge	weight)	TT 7 TT 7' .1 *
	Ι	II	III Outside special areas	IV Within special areas
solution (15% or less)			*	
Sodium nitrite solution	1577	В		
Sodium silicate solution		D		
Sodium sulphide solution	1849	В		
Sodium sulphite solution		С		
Soya bean oil		D		
Sperm oil		D		
Styrene monomer	2055	В		
Sulphuric acid	1830	С		
Sulphuric acid, spent	1832	С		
Sulphurous acid	1833	С		
Sunflower oil		D		
Tall oil, crude and distilled		А	0.1	0.05
Tall oil fatty acid (resin acids less than 20%)		С		
Tall oil soap (disproportionated solution	)	В		
Tallow		D		
Tannic acid		С		
Tetrachloroethane	1702	В		
Tetraethylenepenta	und 3120	D		
Tetrahydrofuran	2056	D		

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number I	Pollution Category for operational discharge II	Residual concentration (percent by weight) III Outside	IV Within
Tetrahydronaphtha	llene	С	special areas	special areas
1,2,3,5- Tetramethyl benzene		С		
Titanium tetrachloride	1838	D		
Toluene	1294	С		
Toluenediamine	1709	С		
Toluene diisocyanate	2078	С		
o-Toluidine	1708	С		
Tributyl phosphate		В		
1,2,4- Trichlorobenzene	2321	В		
1,1,1- Trichloroethane	2831	В		
1,1,2- Trichloroethane	В			
Trichloroethylene	1710	В		
1,2,3- Trichloropropane		В		
1,1,2- Trichloro-1,2,2- trifluoroethane		С		
Tricresyl phosphate (containing less than 1% ortho- isomer)		Α	0.1	0.05
Tricresyl phosphate (containing 1%	2574****	А	0.1	0.05

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

		_	_	
Substance	UN Number	Pollution Category for operational discharge	Residual concentration (percent by weight)	
	Ι	II	III Outside special areas	IV Within special areas
or more ortho- isomer)				
Triethanolamine		D		
Triethylamine	1296	С		
Triethylbenzene		А	0.1	0.05
Triethylene glycol methyl ether		D		
Triethylenetetrami	n <b>∂</b> 259	D		
Triethyl phosphate		D		
Triisopropanolami	ne	D		
Trimethylacetic acid		D		
Trimethylamine		С		
1,2,3- Trimethylbenzene		В		
1,2,4- Trimethylbenzene		В		
1,3,5- Trimethylbenzene	2325	В		
Trimethylhexamet diamine (2,2,4- and 2,4,4- isomers)	hŷBede	D		
Trimethylhexamet diisocyanate (2,2,4-and 2,4,4- isomers)	հջԹոջ	В		
Trimethylol propane polyethyoxylate		D		
2,2,4- Trimethyl-1,3-		С		

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10-35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution	Residual	
		Category for operational	concentration (percent by	
	Ι	discharge II	weight) III Outside	IV Within
pentanediol-1- isobutyrate			special areas	special areas
Tripropylene glycol methyl ether		D		
Trixylyl phosphate		А	0.1	0.05
Tung oil		D		
Turpentine	1299	В		
Undecane	2330	D		
1-Undecene		В		
Undecyl alcohol		В		
Urea, ammonium nitrate solution		D		
Urea, ammonium phosphate solution		D		
Urea, ammonium nitrate solution (containing aqua ammonia)		С		
<i>n</i> -Valeraldehyde	2058	D		
Vinyl acetate	1301	С		
Vinyl ethyl ether	1302	С		
Vinylidene chloride	1303	В		
Vinyl neodecanoate		С		
Vinyl toluene	2618	А	0.1	0.05
White spirit, low (15—20%) aromatic	1300	В		

\* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.

\*\* UN number refers to 10—35%.

\*\*\* UN number 1114 applies to Benzene.

Substance	UN Number	Pollution Category for operational discharge	Residual concentration (percent by weight)	
	Ι	II	III Outside special areas	IV Within special areas
Xylene	1307	С		
Xylenol	2261	В		
* UN number 2789 refers to more than 80% solution and 2790 to between 10% and 80% solution.				
** UN number refers to 10—35%.				

\*\*\* UN number 1114 applies to Benzene.

\*\*\*\* UN number 2574 applies to Tricresyl phosphate containing more than 3% ortho-isomer.

# SCHEDULE 2

Regs 1(2) and 15

# LIST OF NON-POLLUTING LIQUID SUBSTANCES CARRIED IN BULK

Substance	UN Number
Acetone	1090
Acetonitrile	1648
Alcohols, $C_1$ , $C_2$ , $C_3$ as individuals and mixtures	
Alcohols, C4	
Alcohols, C <sub>13</sub> and above as individuals and mixtures	
Alum (15% solution)	
tert-Amyl alcohol	1105
<i>n</i> -Butyl alcohol	1120
sec-Butyl alcohol	1120
tert-Butyl alcohol	1120
Butyl stearate	
Calcium bromide solution	
Cetyl/Eicosyl methacrylate mixture	
Citric juice	
Dextrose solution	
Dibutyl sebacate	
Dicyclopentadiene	2048
Diethanolamine	
Diethylene glycol	

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Substance	UN Number
Diethylene glycol diethyl ether	
Diethylene glycol butyl ether	
Diethylene glycol ethyl ether	
Diethylenetriamine pentaacetic acid, pentasodium salt solution	
Diethyl ether	1155
Diethyl ketone	1156
Diheptyl phthalate	
Dihexyl phthalate	
Diisooctyl phthalate	
Dioctyl phthalate	
Dipropylene glycol	
Dodecyl methacrylate	
Dodecyl/Pentadecyl methacrylate mixture	
Ethyl alcohol	1170
Ethylene carbonate	
Ethylene glycol butyl ether	2369
Ethylene glycol <i>tert</i> -butyl ether	
Ethylene-vinylacetate copolymer (emulsion)	
Glycerin	
Glycine sodium salt solution	
1-Heptadecene	
<i>n</i> -Heptane	1206
1-Hexadecene	
<i>n</i> -Hexane	1208
Hexylene glycol	
Isobutyl alcohol	1212
Isopropyl acetate	1220
Isopropyl alcohol	1219
Lard	
Latex (carboxylated styrene/butadiene copolymer)	
Lignin sulphonic acid, salt (low COD) solution	
Magnesium chloride solution	
Magnesium hydroxide slurry	

Substance	UN Number
3-Methoxy-1-butanol	
Methyl acetate	1231
Methyl alcohol	1230
2-Methyl-2-hydroxy-3-butyne	
3-Methyl-3-methoxy butanol	
3-Methyl-3-methoxy butyl acetate	
2-Methylpentane	1208
Milk	
Molasses	
1-Octadecanol	
Olefins ( $C_{13}$ and above, all isomers)	
Paraffin wax	
1-Pentadecene	
Petroleum spirit	1271
Polyaluminium chloride solution	
Polybutene	
Polyethylene glycols	
Polyethylene glycol dimethyl ether	
Polypropylene glycol methyl ether	
Polysiloxane	
1,2-Propylene glycol	
Propylene tetramer	2850
Sodium alumino silicate slurry	
Sodium chlorate solution (50% or less)	2428
Sodium salicylate	
Sorbitol	
Sulpholane	
Sulphur (molten)	2448
1-Tetradecanol	
Tetradecene	
Tridecanol	
Tridecene	
Triethylene glycol	
Triethylene glycol butyl ether	

UN Number
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# SCHEDULE 3

Regs 1(2), 18 and 28

# OIL-LIKE SUBSTANCES

#### Category C Substances

Cyclohexane p-Cymene Diethylbenzene Dipentene Dodecylbenzene Ethylbenzene Heptene (mixed isomers) 1-Hexene 2-Methyl-1-pentene*n*-Pentane Pentene (all isomers) 1-Phenyl-1-xylyl ethane Propylene dimer Tetrahydronaphthalene Toluene Xylene

# Category D Substances

Alkyl (C<sub>9</sub>-C<sub>17</sub>) benzene mixtures (straight or branched chain) Butene oligomer Diisopropyl naphthalene Dodecane Ethylcyclohexane Isopentane Nonane Octane*n*-Paraffins (C<sub>10</sub>-C<sub>20</sub>)

# **EXPLANATORY NOTE**

(This note is not part of the Regulations)

These Regulations, with the Merchant Shipping IBC Code Regulations 1987 and the Merchant Shipping BCH Code Regulations 1987, give effect to Annex II to the International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocol of 1978 thereto and as further amended by the amendments thereto adopted by the Marine Environment Protection Committee (the MEPC) of the International Maritime Organization on December 5th 1985.

The Regulations apply to ships carrying noxious liquid substances in bulk. They apply to United Kingdom ships wherever they may be and to other ships when they are in United Kingdom waters.

Noxious liquid substances are divided into four categories, A, B, C and D, in accordance with 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.

Discharges into the sea of noxious liquid substances or mixtures containing them are prohibited; and discharges into the sea of liquid wastes containing residues of such substances are strictly controlled (Regulations 3, 5, 6, 11, 12 and 13). The worse the hazard which the category of substances presents, the stricter are the controls. Controls are also more stringent in two special areas, namely the Black Sea and the Baltic Sea.

The Regulations also prohibit (regulation 14) the discharge of liquid substances which, though not identified as noxious, have not been evaluated and found to be harmless to the marine environment, except with written permission from the government of the state or states concerned.

The Regulations require ships to follow specified procedures when washing cargo tanks (regulations 4 and 8 to 10). The procedures depend on the category of substance carried and on whether or not unloading takes place in a special area. Certain oil-like substances are allowed to be carried and their residues discharged in accordance with the Merchant Shipping (Prevention of Oil Pollution) Regulations 1983 instead of in accordance with these Regulations, provided (a) that the ship meets extra stability requirements and (b) that its International Prevention of Oil Pollution Certificate is endorsed to indicate the ship's conformity with relevant requirements of these Regulations (regulation 18).

All ships are required to carry a Procedures and Arrangements Manual complying with the Standards for Procedures and Arrangements adopted by the MEPC (regulation 19), and to be provided with the equipment and arrangements specified in that manual (regulation 22). They are also required to carry a Cargo Record Book in which operations involving cargoes of noxious liquid substances have to be recorded (regulation 20).

Every tank designated to carry a Category B or C substance is required to have a pumping system capable of emptying the tank so that the residues remaining after unloading is complete do not exceed, in the case of a new ship,  $0.1m^3$  for a Category B and  $0.3m^3$  for a Category C substance and, in the case of an existing ship,  $0.3m^3$  for a Category B and  $0.9m^3$  for a Category C substance (regulation 21).

Ships are required to be surveyed for the purposes of the regulations, 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 (regulations 23–25).

Carriage of noxious or unassessed liquid substances in bulk is prohibited except where the ship has the appropriate certificate (regulation 28).

Penalties are prescribed for breaches of the regulations and provision is made for ships to be detained where a breach occurs (regulations 29 and 30).

Copies of the Convention and Codes referred to in the regulations are obtainable from the International Maritime Organization, 4 Albert Embankment, London SE17SR.