

ANNEX 7

RESOLUTION MEPC.85(44)
adopted on 13 March 2000**GUIDELINES FOR THE DEVELOPMENT OF SHIPBOARD MARINE POLLUTION
EMERGENCY PLANS FOR OIL AND/OR NOXIOUS LIQUID SUBSTANCES**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the function of the Committee,

NOTING that regulation 26 of Annex I and regulation 16 of Annex II of MARPOL 73/78 require ships to carry a shipboard oil pollution emergency plan, a shipboard marine pollution emergency plan for noxious liquid substances and/or a shipboard marine pollution emergency plan in accordance with the Guidelines developed by the Organization,

RECOGNIZING the urgent need for developing such Guidelines in order to ensure uniform application of these regulations,

HAVING CONSIDERED at its thirty-second session proposals for the Guidelines for the development of shipboard oil pollution emergency plans and at its forty-fourth session further proposals for Guidelines for the development of shipboard marine pollution emergency plans for oil and/or noxious liquid substances,

1. ADOPTS the Guidelines for the development of the shipboard marine pollution emergency plans for oil and/or noxious liquid substances, the text of which is set out at the annex to the present resolution;
2. URGES Governments to ensure that the shipboard oil pollution emergency plans, the shipboard marine pollution emergency plans for noxious liquid substances and/or the shipboard marine pollution emergency plan are developed in accordance with these Guidelines when approving them under the provisions of regulation 26 of Annex I and/or regulation 16 of Annex II of MARPOL 73/78, pending their entry into force.

GUIDELINES FOR THE DEVELOPMENT OF SHIPBOARD MARINE POLLUTION EMERGENCY PLANS FOR OIL AND/OR NOXIOUS LIQUID SUBSTANCES

1 INTRODUCTION

1.1 These Guidelines have been developed to assist with the preparation of shipboard oil pollution emergency plans, shipboard marine pollution emergency plans for noxious liquid substances and/or a shipboard marine pollution emergency plan (hereafter referred to as the "Plan(s)") that are required by regulation 26 of Annex I and/or regulation 16 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) (hereafter referred to as the "Convention"). The Plan (s) must be approved in accordance with these regulations.

1.2 The Guidelines are comprised of three primary sections:

- .1 Introduction: This section provides a general overview of the subject-matter and introduces the reader to the basic concept of the Guidelines and the Plans that are expected to be developed from them.
- .2 Mandatory provisions: This section provides guidance to ensure that the mandatory provisions of regulation 26 of Annex I and regulation 16 of Annex II of the Convention are met.
- .3 Non-mandatory provisions: This section provides guidance concerning the inclusion of other information in the Plan. This information, although not required under regulation 26 of Annex I and regulation 16 of Annex II of the Convention, may be required by local authorities in ports visited by the ship, or it may be added to provide additional assistance to the ship's master when responding to an emergency situation. This section also provides guidance on updating and exercising of the Plan.

1.3 Concept of the Guidelines: The Guidelines are intended to provide a starting point for the preparation of the Plans for specific ships. The broad spectrum of ships for which Plans are required makes it impractical to provide specific guidelines for each ship type. Plan writers are cautioned that they must consider in their Plans the many variables that apply to their ships. Some of these variables include: type and size of ship, cargo, cargo's physical properties (applicable only to ships certified to carry noxious liquid substances (NLSs) in bulk as defined in regulation 16 of Annex II of the Convention. Hereafter referred to as "ships certified to carry NLSs"), route, and shore-based management structure. The Guidelines are not intended to be a compilation of menu items from which the Plan writer can select certain sections and produce a workable Plan. For a Plan to be effective and to comply with regulation 26 of Annex I and/or regulation 16 of Annex II of the Convention, it must be carefully tailored to the particular ship for which it is intended. Properly used, the Guidelines will ensure that all appropriate issues are considered in developing the Plan.

1.4 Concept of the Plan: The Plan is available to assist personnel in dealing with an unexpected discharge of oil or other noxious liquid substance. Its primary purpose is to set in motion the necessary actions to stop or minimize the discharge and to mitigate its effects. Effective planning ensures that the necessary actions are taken in a structured, logical, safe and timely manner.

1.4.1 The Plan must go beyond providing for operational spills. It must include guidance to assist the master in meeting the demands of a catastrophic discharge, should the ship become involved in one.

1.4.2 The need for a predetermined and properly structured Plan is clear when one considers the pressures and multiple tasks facing personnel confronted with an emergency situation. In the heat of the moment, lack of planning will often result in confusion, mistakes, and failure to advise key people. Delays will be incurred and time will be wasted; time during which the situation may well worsen. As a consequence, the ship and its personnel may be exposed to increasing hazards and greater environmental damage may occur.

1.4.3 For the Plan to accomplish its purpose, it must be:

- .1 realistic, practical, and easy to use;
- .2 understood by ship management personnel, both on board and ashore; and
- .3 evaluated, reviewed, and updated regularly.

1.4.4 The Plans envisioned by regulation 26 of Annex I and/or regulation 16 of Annex II of the Convention are intended to be simple documents. Use of summarizing flowcharts or checklists to guide the master through the various actions and decisions required during an incident response is highly encouraged. These can provide a quickly visible and logically sequenced form of information which can reduce error and oversight during emergency situations. Inclusion of extensive background information on the ship, cargo, etc., should be avoided as this is generally available elsewhere. If such information is relevant, it should be kept in annexes where it will not dilute the ability of ship's personnel to locate operative parts of the Plan.

1.4.5 An example of a summarizing flowchart referred to in paragraph 1.4.4 is included in the Example Format for a Shipboard Marine Pollution Emergency Plan at appendix II.

1.4.6 The Plan is likely to be a document used on board by the master and officers of the ship. It must therefore be available in a working language or languages understood by the master and officers. A change in the master and officers which brings about an attendant change in their working language or languages understood would require the issuance of the Plan in the new language(s).

1.4.7 The Plan should clearly underline the following:

"Without interfering with shipowners' liability, some coastal States consider that it is their responsibility to define techniques and means to be taken against a marine pollution incident and approve such operations which might cause further pollution, i.e. lightening. States are in general entitled to do so under the International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969 (1969 Intervention Convention) and the Protocol relating to Intervention on the High Seas in Cases of Pollution by Substances other than Oil, 1973 (1973 Intervention Protocol)."

2 MANDATORY PROVISIONS OF REGULATION 26 OF ANNEX I AND REGULATION 16 OF ANNEX II TO THE CONVENTION

2.1 This section provides individual guidelines for each of the four mandatory provisions of regulation 26 of Annex I and regulation 16 of Annex II of the Convention.

2.2 Regulation 26 of Annex I and regulation 16 of Annex II of the Convention provide that the Plan shall consist at least of:

- "(a) the procedure to be followed by the master or other persons having charge of the ship to report an oil or noxious liquid substance pollution incident, as required in article 8 and Protocol I of the present Convention¹, based on Guidelines developed by the Organization²;
- (b) the list of authorities or persons to be contacted in the event of an oil or noxious liquid substance pollution incident;
- (c) a detailed description of the action to be taken immediately by persons on board to reduce or control the discharge of oil or noxious liquid substance following the incident; and
- (d) the procedures and point of contact on the ship for co-ordinating shipboard activities with national and local authorities in combating oil or noxious liquid substance pollution."

2.3 The coastal State report: Article 8 and Protocol I of the Convention require that the nearest coastal State be notified of actual or probable discharges. The intent of this requirement is to ensure that coastal States are informed without delay, of any incident giving rise to pollution, or threat of pollution, of the marine environment, as well as of assistance and salvage measures, so that appropriate action may be taken.

2.3.1 When required: The Plan should provide clear, concise guidance to enable the master to determine when a report to the coastal State is required.

2.3.1.1 Actual discharge: A report to the nearest coastal State is required whenever there is:

- .1 a discharge above the permitted level of oil or noxious liquid substance for whatever reason including those for the purpose of securing the safety of the ship or saving life at sea; or
- .2 a discharge during the operation of the ship of oil or noxious liquid substance in excess of the quantity or instantaneous rate permitted under the present Convention¹.

2.3.1.2 Probable discharge: The Plan should give the master guidance to evaluate a situation which, though not involving an actual discharge, would qualify as a probable discharge and thus require a report. In judging whether there is such a probability and whether the report should be made, the following factors, as a minimum, should be taken into account:

- .1 the nature of the damage, failure or breakdown of the ship, machinery or equipment;

¹ i.e. MARPOL 73/78

² Refer to "General principles for ship reporting system and ship reporting requirements, including Guidelines for reporting incidents involving dangerous goods, harmful substances and/or marine pollutants" adopted by the Organization resolution A.648(16). For ease of reference, see IMO publication "Provisions concerning the Reporting of Incidents Involving Harmful Substances under MARPOL 73/78".

- .2 ship location and proximity to land or other navigational hazards;
- .3 weather, tide, current and sea state; and
- .4 traffic density.

2.3.1.3 It is impracticable to lay down precise definitions of all types of situations involving probable discharge which would warrant an obligation to report. As a general guideline, the master should make a report in cases of:

- .1 damage, failure or breakdown which affects the safety of ships; examples of such situations are collision, grounding, fire, explosion, structural failure, flooding, cargo shifting; and
- .2 failure or breakdown of machinery or equipment which results in impairment of the safety of navigation; examples of such incidents are failure or breakdown of steering gear, propulsion, electrical generating system, essential shipborne navigational aids.

2.3.2 Information required: The Plan must specify, in appropriate detail, the procedure for making the initial report to the coastal State. The Organization's Guidelines in resolution A.648(16) provide necessary detail for the Plan writer. The Plan should include a prepared message form, an example of which is included at appendix II to these Guidelines. Coastal States are encouraged to take note of table 1 of appendix II and accept this as sufficient initial information. Supplementary or follow-up reports should as far as possible use the same format.

2.4 List of persons to be contacted

2.4.1 The ship involved in an oil or noxious liquid substance pollution incident will have to communicate with both coastal State or port contacts and ship interest contacts.

2.4.2 When compiling contact lists, due account must be taken of the need to provide 24-hour contact information and to provide alternates to the designated contact. These details must be routinely updated to take account of personnel changes and changes in telephone, telex, and telefax numbers. Clear guidance should also be provided regarding the preferred means of communication (telex, telephone, telefax, etc.).

2.4.3 Coastal State contacts

2.4.3.1 In order to expedite response and minimize damage from an oil or noxious liquid substance pollution incident, it is essential that appropriate coastal States should be notified without delay. This process is begun with the initial report required by article 8 and Protocol I of the Convention. Guidelines for making this report are provided in section 2.3.

2.4.3.2 The Plan should include as an appendix the list of agencies or officials of administrations responsible for receiving and processing reports as developed and updated by the Organization in conformance with article 8 of the Convention. In the absence of a listed focal point, or should any undue delay be experienced in contacting the responsible authority by direct means, the master should be advised to contact the nearest coastal radio station, designated ship movement reporting station or rescue co-ordination centre (RCC) by the quickest available means.

2.4.4 Port contacts

2.4.4.1 For ships in port, notification of local agencies will speed response. The variety of trades in which ships engage makes it impractical to specify in these Guidelines a definitive approach to listing these agencies in the Plan. Information on regularly visited ports should be included as an appendix to the Plan. Where this is not feasible, the Plan should require the master to obtain details concerning local reporting procedures upon arriving in port.

2.4.5 Ship interest contacts

2.4.5.1 The Plan should provide details of all parties with an interest in the ship to be advised in the event of an incident. This information should be provided in the form of a contact list. When compiling such lists, it should be remembered that in the event of a serious incident, ship's personnel will be fully engaged in saving life and taking steps to control and minimize the effects of the casualty. They should therefore not be hampered by having onerous communications requirements imposed on them.

2.4.5.2 Procedures will vary between companies but it is important that the Plan clearly specifies who will be responsible for informing the various interested parties such as cargo owners, insurers and salvage interests. It is also essential that both the ship's Plan and its company's shoreside Plan are co-ordinated to guarantee that all parties having an interest are advised and that duplication of reports is avoided.

2.5 Steps to control discharge

2.5.1 Ship personnel will almost always be in the best position to take quick action to mitigate or control the discharge of oil or noxious liquid substance from their ship. The Plan should provide the master with clear guidance on how to accomplish this mitigation for a variety of situations. The Plan should not only outline action to be taken, but it should also identify who on board is responsible so that confusion during the emergency can be avoided.

2.5.2 This section of the Plan will vary widely from ship to ship. Differences in ship type, construction, cargo, equipment, manning, and even route may result in shifting emphasis being placed on various aspects of this section. As a minimum, the Plan should provide the master with guidance to address the following:

- .1 Operational spills: The Plan should outline the procedures for safe removal of oil or noxious liquid substance spilled and contained on deck. This may be through the use of on-board resources or by hiring a clean-up company. In either case the Plan should provide guidance to ensure proper disposal of removed oil, noxious liquid substances and clean-up materials.
 - .1.1 Pipe leakage: The Plan should provide specific guidance for dealing with pipe leakage.
 - .1.2 Tank overflow: Procedures for dealing with tank overflows should be included. Alternatives such as lowering cargo or bunkers back to empty or slack tanks or readying pumps to transfer the excess ashore should be outlined.

- .1.3 Hull leakage: The Plan should provide guidance for responding to spillage due to suspected hull leakage. This may involve guidance on measures to be taken to reduce the head of cargo in the tank involved either by internal transfer or discharge ashore. Procedures to handle situations where it is not possible to identify the specific tank from which leakage is occurring should also be provided. Procedures for dealing with suspected hull fractures should be included and they should carry appropriate cautions regarding attention to the effect corrective actions may have on hull stress and stability.
- .2 Spills resulting from casualties: Casualties should be treated in the Plan as a separate section. The Plan should include various checklists or other means which will ensure that the master considers all appropriate factors when addressing the specific casualty³. These checklists must be tailored to the specific ship and to the specific product or product types. Especially for the ships certified to carry NLSs, the checklists or other means e.g., "Characteristics of Liquid Chemicals Proposed for Marine Transport in Bulk" (Data Sheet), should identify physical properties, special protective equipment or unusual response techniques in a format consistent with the requirements of section 1.4.4 of these Guidelines. Reference may be made to Data Sheet or similar documents that identify characteristics of NLS. A copy of such document should be kept with the plan, but need not be part of the approved plan. In addition to the checklists, specific personnel assignments for anticipated tasks must be identified. Reference to existing fire control plans and muster lists is sufficient to identify personnel responsibilities. The following are examples of casualties which should be considered:
- .2.1 grounding;
 - .2.2 fire/explosion;
 - .2.3 collision (with fixed or moving object);
 - .2.4 hull failure;
 - .2.5 excessive list;
 - .2.6 containment system failure;
 - .2.7 dangerous reactions of cargo (for ships certified to carry NLSs);
 - .2.8 other dangerous cargo release (for ships certified to carry NLSs);
 - .2.9 loss of tank environmental control (for ships certified to carry NLSs);
 - .2.10 submerged/foundered;
 - .2.11 wrecked/stranded;
 - .2.12 cargo contamination yielding a hazardous condition (for ships certified to carry NLSs); and
 - .2.13 hazardous vapour release.

³ Reference is made to the International Safety Management (ISM) Code, Section 8.

2.5.3 In addition to the checklists and personnel duty assignments mentioned in paragraph 2.5.2, the Plan should provide the master with guidance concerning priority actions, stability and stress considerations, lightening and mitigating activities.

2.5.3.1 Priority actions: This section provides some general considerations that apply to a wide range of casualties. The Plan should provide ship-specific guidance to the master concerning these broad topics.

- .1 In responding to a casualty, the master's priority will be to ensure the safety of personnel and the ship and to take action to prevent escalation of the incident. In casualties involving spills, immediate consideration should be given to measures aimed at preventing fire, personnel exposure to toxic vapours, and explosion, such as altering course so that the ship is upwind of the spilled cargo, shutting down non-essential air intakes, etc. If the ship is aground, and cannot therefore manoeuvre, all possible sources of ignition should be eliminated and action should be taken to prevent toxic vapours or flammable vapours entering accommodation and engine-room spaces. When it is possible to manoeuvre, the master, in conjunction with the appropriate shore authorities, may consider moving his ship to a more suitable location in order, for example, to facilitate emergency repair work or lightening operations, or to reduce the threat posed to any particularly sensitive shoreline areas. Such manoeuvring may be subject to coastal State jurisdiction (see paragraph 1.4.7).
- .2 Prior to considering remedial action, the master will need to obtain detailed information on the damage sustained by his ship. A visual inspection should be carried out and all cargo tanks, bunker tanks, and other compartments should be sounded. Due regard should be paid to the indiscriminate opening of ullage plugs or sighting ports, especially when the ship is aground, as loss of buoyancy could result.
- .3 Having assessed the damage sustained by the ship, the master will be in a position to decide what action should be taken to prevent or minimize further discharge. When bottom damage is sustained, hydrostatic balance will be achieved (depending on physical properties) fairly rapidly, especially if the damage is severe, in which case the time available for preventive action will often be limited. When significant side damage is sustained in the way of fuel/lubrication and/or cargo tanks, bunkers or cargo will be released fairly rapidly until hydrostatic balance is achieved and the rate of release will then reduce and be governed by the rate at which bunkers or cargo is displaced by water flowing in under the bunkers or cargo. When the damage is fairly limited and restricted, for example, to one or two compartments, consideration may be given to transferring the substance involved internally from damaged to intact tanks. When considering the transfer of oil or noxious liquid substances from a damaged tank to an intact tank, the master should consider (see paragraph 1.4.7):
 - .3.1 the extent of the damage;
 - .3.2 hydrostatic balance;
 - .3.3 the ship's ability to transfer cargo; and

- .3.4 the physical properties of the substance(s) (for ships certified to carry NLSs) involved such as:
 - .1 solubility;
 - .2 density;
 - .3 water reactivity;
 - .4 solidification; and
 - .5 compatibility.

2.5.3.2 Stability and strength considerations: Great care in casualty response must be taken to consider stability and strength when taking actions to mitigate the spillage of oil or noxious liquid substance or to free the ship if aground. The Plan should provide the master with detailed guidance to ensure that these aspects are properly considered. Nothing in this section shall be construed as creating a requirement for damage stability plans or calculations beyond those required by relevant international conventions.

- .1 Internal transfers should be undertaken only with a full appreciation of the likely impact on the ship's overall longitudinal strength and stability. When the damage sustained is extensive, the impact of internal transfers on stress and stability may be impossible for the ship to assess. Contact may have to be made with the owner or operator or other entity in order that information can be provided so that damage stability and damage longitudinal strength assessments may be made. These could be made within the head office technical departments. In other cases, classification societies or independent organizations may need to be contacted. The Plan should clearly indicate who the master should contact in order to gain access to these facilities. Additionally, in the case of ships certified to carry NLSs, consideration as to the compatibility of all substances involved such as cargoes, bunkers, tanks, coatings, piping, etc., must also be considered before such an operation is undertaken.
- .2 Where appropriate, the Plan should provide a list of information required for making damage stability and damage longitudinal strength assessments.

2.5.3.3 Lightening: Should the ship sustain extensive structural damage, it may be necessary to transfer all or part of the cargo to another ship. The Plan should provide guidance on procedures to be followed for ship-to-ship transfer of cargo. Reference may be made in the Plan to existing company guides. A copy of such company procedures for ship-to-ship transfer operations should be kept with the Plan. The Plan should address the need for co-ordinating this activity with the coastal State, as such operation may be subject to its jurisdiction.

2.5.3.4 Mitigating activities: When the safety of both the ship and personnel has been addressed, the master can initiate mitigating activities according to the guidance given by the plan. The plan should address such aspects as:

- .1 assessment and monitoring requirements;
- .2 personnel protection issues:
 - .1 protective equipment; and
 - .2 threats to health and safety.

- .3 physical properties of the substance (for ships certified to carry NLSs) involved such as:
 - .1 solubility;
 - .2 density;
 - .3 water reactivity;
 - .4 solidification; and
 - .5 compatibility
- .4 containment and other response techniques (e.g. dispersing, absorbing, neutralization);
- .5 isolation procedures;
- .6 decontamination of personnel; and
- .7 disposal of removed oil, noxious liquid substances and clean-up materials.

2.5.4 In order to have the necessary information available to respond to the situations referred to in paragraph 2.5.2, certain plans, drawings, and ship-specific details such as, a layout of a general arrangement plan, a tank plan, etc., should be appended. The Plan should show where current cargo, bunker and ballast information, including quantities and specifications, are available.

2.6 National and local co-ordination: Quick, efficient co-ordination between the ship and coastal State or other involved parties becomes vital in mitigating the effects of an oil or noxious liquid substances pollution incident. The Plan should address the need to contact the coastal State for authorization prior to undertaking mitigating actions (see paragraph 1.4.7).

2.6.1 The identities and roles of various national and local authorities involved vary widely from State to State and even from port to port. Approaches to responsibility for discharge response also vary. Some coastal States have agencies that take charge of response immediately and subsequently bill the owner for the cost. In other coastal States, responsibility for initiating response is placed on the shipowner. In the case of the latter the Plan will require greater detail and guidance to assist the master in organizing this response.

3 NON-MANDATORY PROVISIONS

3.1 In addition to the provisions required by regulation 26 of Annex I and/or regulation 16 of Annex I of the Convention, local requirements, insurance company, or owner/operator policies, etc., may dictate that other guidance be provided in the Plan. These topics may include: provision of diagrams and drawings; ship-carried response equipment; public affairs; record-keeping; product specific response information (for ships certified to carry NLSs) and reference materials.

3.2 Plans and diagrams: In addition to the plans required by paragraph 2.5.4 above, other details concerning the ship's design and construction may be appended to the Plan or their location identified.

3.3 **Response equipment:** Some ships may carry on board equipment to assist in pollution response. The type and quantity of this equipment may vary widely. The Plan should indicate an inventory of such equipment, if carried. It should also provide directions for safe use and guidelines to assist the master in determining when such use is warranted. Care should be exercised to ensure that the use of such equipment by the crew is practical and consistent with safety considerations. When such equipment is carried, the Plan should establish personnel responsibilities for its deployment, oversight, and maintenance. In order to ensure safe and effective use of such equipment, the Plan should also provide for crew training in the use of it. The Plan should include a provision that no chemical agent should be used for response to pollution on the sea without authorization of the appropriate coastal State and that such authorization should also be requested, when required, for use of containment or recovery equipment (see paragraph 1.4.7).

3.4 **Shoreside Spill Response Co-ordinator or Qualified Individual:** Guidance for the master for requesting and co-ordinating initial response actions with the person responsible for mobilizing shoreside response personnel and equipment.

3.5 **Potential Oil or Noxious Liquid Substance Spill Response Contractors:** Some coastal States require ships to have contracts with "response contractors" when ships enter into such States' ports. When ships sail toward such States, it is recommended that response resources (personnel and equipment) and capabilities are identified in advance for each potential port State. In other States, in particular, those referred to in paragraph 1.4.7, such requirements do not exist in general.

3.6 **Planning Standards:** To facilitate forethought about the amount of response resources which should be requested, possible scenarios should be analyzed and accordingly planned for (see paragraph 1.4.7).

3.7 **Public affairs:** The owners may want to include in the Plan guidance for the master in dealing with the distribution of information to the news media. Such guidance should be fashioned to reduce the burden on ship's personnel already busy with the emergency at hand.

3.8 **Record-keeping:** As with any other incident that will eventually involve liability, compensation and reimbursement issues, the owner may want to include in his Plan guidance for the keeping of appropriate records of the oil or noxious liquid substances pollution incident. Apart from detailing all actions taken on board, records might include communications with outside authorities, owners, and other parties, as well as a brief summary of decisions and information passed and received. Guidance on collecting of samples of spilled oil or noxious liquid substance as well as that carried on board may also be provided.

3.9 **Plan review:** Regular review of the Plan by the owner, operator or master is recommended to ensure that the specific information contained therein is current. A feedback system should be employed which will allow quick capture of changing information and incorporation of it into the Plan. This feedback system should incorporate the following two means:

- .1 periodic review: the Plan should be reviewed by the owner or operator at least yearly to capture changes in local law or policy, contact names and numbers, ship characteristics, or company policy;
- .2 event review: after any use of the Plan in response to an incident, its effectiveness should be evaluated by the owner or operator and modifications made accordingly.

3.10 Plan testing: The Plan will be of little value if it is not made familiar to the personnel who will use it. Regular exercises will ensure that the Plan functions as expected and that the contacts and communications specified are accurate. Such exercises may be held in conjunction with other shipboard exercises and appropriately logged. Where ships carry response equipment, hands-on experience with it by crew members will greatly enhance safety and effectiveness in an emergency situation. Procedures for training and exercise may be defined.

3.11 Salvage: The plan should contain information on what the crew's responsibilities are in a casualty where a vessel is partially or fully disabled, and what constitutes dangerous conditions. A decision process should be outlined in the plan that will aid the master in determining when salvage assistance should be obtained. The decision process should include, but not be limited to the following:

- .1 Nearest land or hazard to navigation;
- .2 Vessel's set and drift;
- .3 Location and time of impact with hazard based on vessel's set and drift;
- .4 Estimated time of casualty repair; and
- .5 Determination of the nearest capable assistance and its response time (i.e. for tug assistance, the time it will take to get on scene and secure the tow). When a casualty occurs to a vessel underway that reduces its manoeuvrability, the master needs to determine his window of opportunity considering the response time of assistance, regardless of the estimated time of repair. It would not be prudent to hesitate in calling for assistance when the time needed to repair something goes beyond the window of opportunity.

APPENDIX I

Additional references for the development of shipboard marine pollution emergency plans

The following publications are suggested to provide additional assistance in the preparation of Plans:

Manual on Oil Pollution, Section II, Contingency Planning

International Maritime Organization (IMO)

ISBN 92 801 1330 5

Available in English, French, and Spanish from IMO Publications Section,
4 Albert Embankment, London SE1 7SR, United Kingdom

Provisions Concerning the Reporting of Incidents Involving Harmful Substances under
MARPOL 73/78

IMO

ISBN 92 801 1261 9

Available in English, French and Spanish

Manual on Chemical Pollution (Section 1 - Problem assessment and response arrangements)

IMO

ISBN 92 801 1223 6

Available in English, French and Spanish

Medical First Aid Guide for Use in Accidents Involving Dangerous Goods (MFAG)

IMO

ISBN 92 801 1269 4

Available in English, French, and Spanish

International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in
Bulk (IBC) Code

IMO

ISBN 92 801 1315 1

Available in English, French, Russian and Spanish

Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (BCH)
Code

IMO

ISBN 92 801 1302 X

Available in English, French, Russian and Spanish

International Safety Management Code (ISM Code)

IMO

ISBN 92 801 1311 8

Available in English

Response to Marine Oil Spills

International Tanker Owners Pollution Federation (ITOPF)

ISBN 0 948691 51 4

Available in English, French, and Spanish from Witherby & Co. Ltd.,
32-36 Aylesbury Street, London EC1R OET, United Kingdom

International Safety Guide for Oil Tankers and Terminals
ISBN 0 948691 62 X
Available from Witherby & Co. Ltd., London

Peril at Sea and Salvage -- A Guide for Masters
International Chamber of Shipping and Oil Companies International Marine Forum (ICS/OCIMF)
ISBN 0 948691 46 8
Available from Witherby & Co. Ltd., London

Ship to Ship Transfer Guide (Petroleum)
ICS/OCIMF
ISBN 0 948691 36 0
Available from Witherby & Co. Ltd., London

Guidelines for the Preparation of Shipboard Oil Spill Contingency Plans
OCIMF/ITOPF
ISBN 1 85609 016 7
Available from Witherby & Co. Ltd., London

Tanker Safety Guide (Chemicals) - International Chamber of Shipping (ICS)
12 Carthusian Street, London EC1M 6EB, United Kingdom

Ship to Ship Transfer Guide (Liquefied Gases)
ICS/OCIMF/SIGTTO
ISBN 1 85609 0825
Available from Witherby and Co. Ltd., London

Model Shipboard Oil Pollution Emergency Plan
International Chamber of Shipping (ICS)
12 Carthusian Street, London EC1M 6EB, United Kingdom

U.S. Code of Federal Regulations, Title 46, Part 150, Compatibility of Chemicals
Available from Superintendent of Documents, Government Printing Office, Washington, DC 20402,
United States

Chemical Hazards Response Information System (CHRIS) Hazardous Data Manual
Available from Superintendent of Documents, Government Printing Office, Washington, DC

APPENDIX II

**EXAMPLE FORMAT FOR A SHIPBOARD MARINE POLLUTION EMERGENCY PLAN
(FOR OIL AND/OR NOXIOUS LIQUID SUBSTANCES)⁴**

All shipboard marine pollution emergency plans (for oil and/or noxious liquid substances) should contain the following introductory text:

"INTRODUCTION

1 This Plan is written in accordance with the requirements of regulation 26 of Annex I and/or regulation 16 of Annex II of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto.

2 The purpose of the Plan is to provide guidance to the master and officers on board the ship with respect to the steps to be taken when an oil and/or noxious liquid substance pollution incident has occurred or is likely to occur.

3 The Plan contains all information and operational instructions required by the Guidelines. The appendices contain names, telephone, telex numbers, etc., of all contacts referenced in the Plan, as well as other reference material.

4 This Plan has been approved by the Administration and, except as provided below, no alteration or revision shall be made to any part of it without the prior approval of the Administration.

5 Changes to Section 5 and the appendices will not be required to be approved by the Administration. The appendices should be maintained up to date by the owners, operators and managers."

⁴ Please provide an appropriate title for the shipboard pollution emergency plan : for oil only, 'shipboard oil pollution emergency plan', for noxious liquid substances only 'shipboard marine pollution emergency plan for noxious liquid substances, and for a combined oil and noxious liquid substances plan, 'shipboard marine pollution emergency plan' by referring to regulation 26 of Annex I and/or regulation 16 of Annex II of the Convention.

INDEX OF SECTIONS

Section	Title
1	Preamble
2	Reporting requirements
2.1	When to report
2.2	Information required
2.3	Who to contact
3	Steps to control discharge
3.1	Operational spills
3.2	Spills resulting from casualties
4	National and local co-ordination
5	Additional information (non-mandatory)

Appendices

SECTION 1: PREAMBLE

1 This section should contain an explanation of the purpose and use of the Plan and indicate how the shipboard Plan relates to other shore-based plans (refer Section 1.4 of the Guidelines).

SECTION 2: REPORTING REQUIREMENTS

2 This section should ensure that the reporting requirements of regulation 26 of Annex I and/or regulation 16 of Annex II of MARPOL 73/78 are complied with and should include information relating to the following:

2.1 When to report

This section should contain guidance on when to report actual and/or probable discharges (see section 2.3.1 of the Guidelines).

2.2 Information required

This section should contain details of the information required for the initial report and supplementary or follow-up reports. Reference should be made to resolution A.648(16) (see section 2.3.2 of the Guidelines). This section should include an example of reporting format as illustrated in table 1.

TABLE 1

SHIPBOARD MARINE POLLUTION EMERGENCY PLAN (FOR OIL AND/OR NOXIOUS LIQUID SUBSTANCES ⁵) SAMPLE FORMAT FOR INITIAL NOTIFICATION	
AA (SHIP NAME, CALL SIGN, FLAG)	
BB (DATE AND TIME OF EVENT, UTC) <div style="display: flex; justify-content: center; gap: 10px;"> [] [] [] [] [] [] D D H H M M </div>	
CC (POSITION, LAT, LONG) OR DD (BEARING, DISTANCE FROM LANDMARK) <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <div style="display: flex; justify-content: center; gap: 5px;"> [] [] [] [] [] [] d d m m </div> <div style="display: flex; justify-content: center; gap: 5px;"> [] [] N S </div> </div> <div style="width: 45%;"> <div style="display: flex; justify-content: center; gap: 10px;"> [] [] [] [] d d d </div> <div style="display: flex; justify-content: center; gap: 10px;"> [] [] [] [] N miles </div> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;"> <div style="display: flex; justify-content: center; gap: 5px;"> [] [] [] [] [] [] d d d m m </div> <div style="display: flex; justify-content: center; gap: 5px;"> [] [] E W </div> </div> <div style="width: 45%;"></div> </div>	
EE (COURSE) <div style="display: flex; justify-content: center; gap: 5px;"> [] [] [] [] d d d </div>	FF (SPEED, KNOTS) <div style="display: flex; justify-content: center; gap: 5px;"> [] [] [] [] kn kn 1/10 </div>
LL (INTENDED TRACK)	
MM (RADIO STATIONS(S) GUARDED)	
NN (DATE AND TIME OF NEXT REPORT, UTC) <div style="display: flex; justify-content: center; gap: 10px;"> [] [] [] [] [] [] D D H H M M </div>	
PP (TYPE AND QUANTITY OF CARGO/BUNKERS ON BOARD)	
QQ (BRIEF DETAILS OF DEFECTS/DEFICIENCIES/DAMAGE)	
RR (BRIEF DETAILS OF POLLUTION, INCLUDING ESTIMATE OF QUANTITY LOST)	
SS (BRIEF DETAILS OF WEATHER AND SEA CONDITIONS) <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;"> <p>WIND</p> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <p>direction</p> [] [] [] [] </div> <div style="text-align: center;"> <p>speed (Beaufort)</p> [] [] [] [] </div> </div> </div> <div style="width: 45%;"> <p>SWELL</p> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <p>direction</p> [] [] [] [] </div> <div style="text-align: center;"> <p>height (m)</p> [] [] [] [] </div> </div> </div> </div>	
TT (CONTACT DETAILS OF SHIP'S OWNER/OPERATOR/AGENT)	
UU (SHIP SIZE AND TYPE) LENGTH: (m) BREADTH: (m) DRAUGHT: (m) TYPE:	
XX (ADDITIONAL INFORMATION) BRIEF DETAILS OF INCIDENT: NEED FOR OUTSIDE ASSISTANCE: ACTIONS BEING TAKEN: NUMBER OF CREW AND DETAILS OF ANY INJURIES: DETAILS OF P&I CLUB & LOCAL CORRESPONDENT: OTHERS:	

Footnote: The alphabetical reference letters in the above format are from "General principles for ship reporting systems and ship reporting requirements, including Guidelines for reporting incidents involving dangerous goods, harmful substances and/or marine pollutants" adopted by the International Maritime Organization by resolution A.648(16). The letters do not follow the complete alphabetical sequence as certain letters are used to designate information required for other standard reporting formats, e.g., those used to transmit route information.

⁵ See footnote No. 4.

2.3 Whom to contact

This section should refer the Plan user to appendices separately listing contacts for the following:

- .1 coastal State contacts (see section 2.4.3 of the Guidelines);
- .2 port contacts (see section 2.4.4 of the Guidelines); and
- .3 ship interest contacts (see section 2.4.5 of the Guidelines).

Examples of how this information could be depicted are included in the appendices.

SECTION 3: STEPS TO CONTROL DISCHARGE

3 This section should ensure that the provisions of regulation 26 of Annex I and/or regulation 16 of Annex II of MARPOL 73/78 regarding steps to control discharge are complied with and should include information relating to the following:

3.1 Operational spills

This section should contain ship-specific information concerning actions to be taken in response to operational spills (see section 2.5.2.1). As a minimum, procedures to address spills resulting from pipe leakage, tank overflow and hull leakage should be included.

3.2 Spills resulting from casualties

This section should contain ship-specific and company-specific information concerning actions to be taken to address, as a minimum, the following casualty scenarios: grounding, fire/explosion, collision (with fixed or moving object), hull failure, excessive list, containment system failure, submerged/foundered, wrecked/stranded, hazardous vapour release, and especially for ships certified to carry NLSs, dangerous reactions of cargo, other dangerous cargo release, loss of tank environmental control and cargo contamination yielding a hazardous condition (see section 2.5.2.2 of the Guidelines). This section should also provide guidance on priority actions to be taken (see Section 2.5 of the Guidelines). Consideration should be given to providing some of the necessary information in the form of checklists/flowcharts where considered applicable. An example of presentation of information relating to response activities and personnel responsibilities is given in table 2 below:

TABLE 2

Operational spill type	Action to be taken	Designated crew member (state rank/rating only)
<i>Pipe leakage</i>	<i>Stop product flow</i>	<i>Chief officer</i>

Where appropriate this section should provide a list of information required for making damage stability and damage longitudinal strength assessments.

SECTION 4: NATIONAL AND LOCAL CO-ORDINATION

4 This section should contain information to assist the master in initiating action by coastal State, local government or other involved parties (see section 2.6 of the Guidelines). Dependent on the ship's trade, this Section should include information and guidance to assist the master with organizing a response to the incident should such response not be organized by shore authorities. Detailed information for specific areas may be included as appendices to the Plan.

SECTION 5: ADDITIONAL INFORMATION (NON-MANDATORY)

5 This section should contain additional information included in the Plan at the owners' discretion. This information, although not required by regulation 26 of Annex I and regulation 16 of Annex II of MARPOL 73/78, may be required by local authorities in ports visited by the vessel, or it may be included to provide additional assistance to the ship's master when responding to an emergency situation. This information may include:

- .1 plan review procedures;
- .2 training and drill procedures;
- .3 record-keeping procedures;
- .4 public affairs policy of the owners/operators;
- .5 etc.

(See section 3 of the Guidelines.)

APPENDICES

6 The following appendices should be attached to the Plan, as a minimum:

- .1 list of coastal State contacts (see section 2.4.3 of the Guidelines)
- .2 list of port contacts as appropriate (see section 2.4.4 of the Guidelines)
- .3 list of ship interest contacts (see section 2.4.5 of the Guidelines)
- .4 ship's plans and drawings (see section 2.5.4 of the Guidelines).

6.1 Additionally the following information could be attached:

- .1 summary flowchart (consideration should be given to adapting the flowchart for bulkhead display on board)
- .2 information relevant to roles and responsibilities of national and local authorities
- .3 other reference material

APPENDIX ...

SHIP INTEREST CONTACTS

The following table provides an example of how ship interest contact information could be presented:

(a) Owner/operator contacts

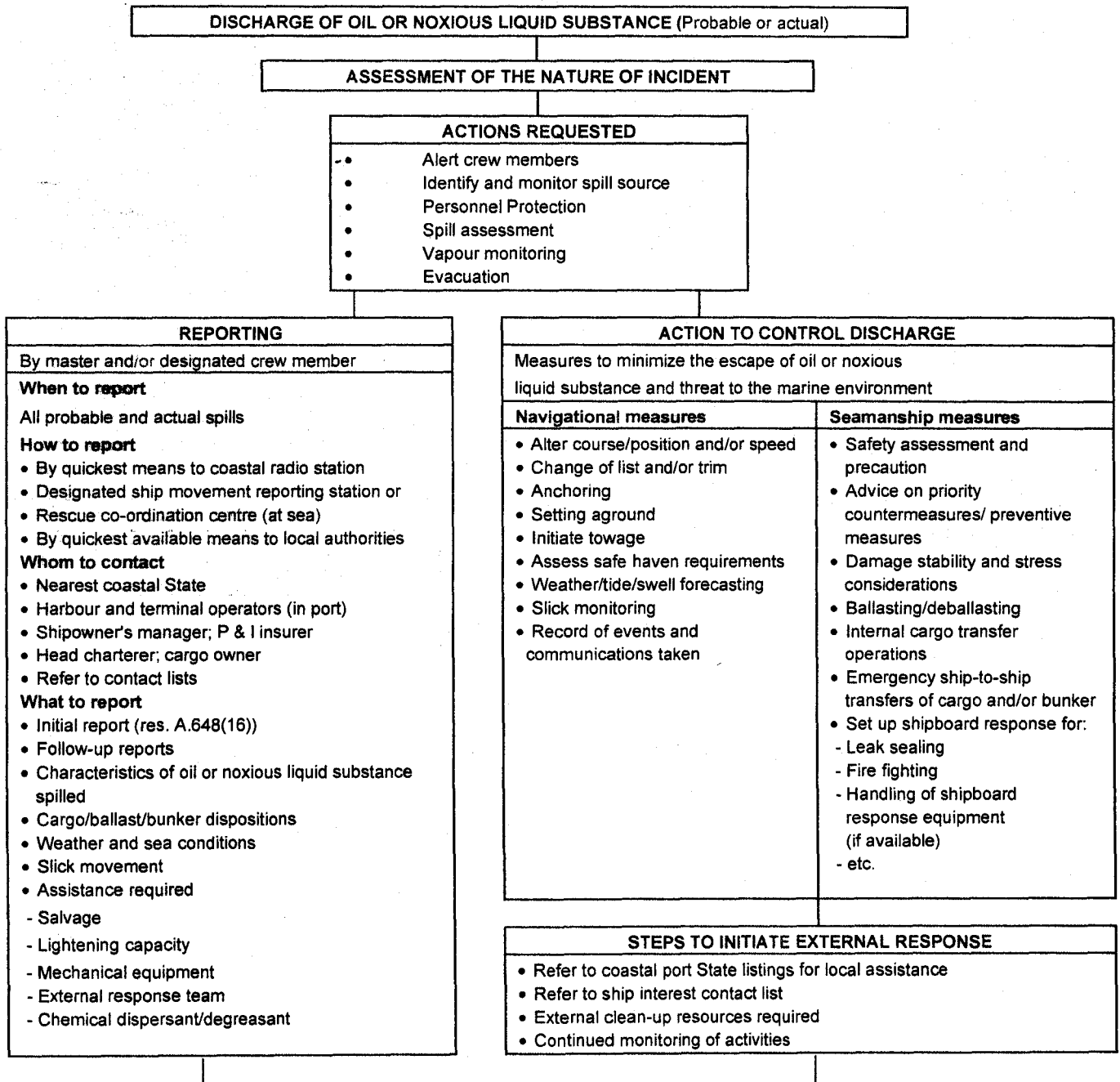
Name of institution/ person to be contacted	Address	Means of contact	Remarks
Owner/operator		Phone: Fax: Telex: INMARSAT- Telex: INMARSAT- Fax:	

(b) Other ship interest contacts

Name of institution/ person to be contacted	Address	Means of contact	Remarks
Charterer			
Local agent			
P&I Club and correspondents			

SHIPBOARD MARINE POLLUTION EMERGENCY PLAN
(FOR OIL AND/OR NOXIOUS LIQUID SUBSTANCES⁶)
Summary flow chart

This flow diagram is an outline of the course of action that shipboard personnel should follow in responding to an oil or noxious liquid substance pollution emergency based on the Guidelines published by the Organization. This diagram is not exhaustive and should not be used as a sole reference in response. Consideration should be given for inclusion of specific references to the Plan. The steps are designed to assist ship personnel in actions to stop or minimize the discharge of oil or noxious liquid substances and mitigate its effects. These steps fall into two main categories - reporting and action.



⁶ See footnote No. 4