

NINETEENTH CONSULTATIVE MEETING OF
CONTRACTING PARTIES TO THE
CONVENTION ON THE PREVENTION
OF MARINE POLLUTION BY DUMPING
OF WASTES AND OTHER MATTER

27 - 31 October 1997

Agenda item 10

REPORT OF THE NINETEENTH CONSULTATIVE MEETING

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1 INTRODUCTION

1.1 The Nineteenth Consultative Meeting of Contracting Parties to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter, 1972 (London Convention 1972), convened in accordance with article XIV(3)(a) of the Convention, was held at IMO Headquarters, London, from 27 to 31 October 1997 under the chairmanship of Mr. A.B. Sielen (United States). Ambassador G.E. do Nascimento e Silva (Brazil) was Vice-Chairman.

1.2 The Meeting was attended by delegations from the following 40 Contracting Parties to the London Convention 1972:

ARGENTINA	MALTA
AUSTRALIA	MEXICO
BELGIUM	NETHERLANDS
BRAZIL	NEW ZEALAND
CANADA	NIGERIA
CHILE	NORWAY
CHINA	PANAMA
CUBA	PHILIPPINES
CYPRUS	POLAND
DENMARK	REPUBLIC OF KOREA
EGYPT	RUSSIAN FEDERATION
FINLAND	SOLOMON ISLANDS
FRANCE	SOUTH AFRICA
GERMANY	SPAIN
GREECE	SWEDEN
ICELAND	SWITZERLAND
ITALY	TUNISIA
JAMAICA	UNITED KINGDOM
JAPAN	UNITED STATES
LIBYAN ARAB JAMAHIRIYA	VANUATU

1.3 A representative from the following Associate Member of IMO attended the Meeting:

HONG KONG, CHINA

1.4 Observers from the following States that are not Contracting Parties to the London Convention 1972 attended the Meeting:

BAHAMAS
COLOMBIA
ECUADOR
SAUDI ARABIA
SYRIAN ARAB REPUBLIC

1.5 A representative from the INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA) attended the Meeting.

1.6 An observer from the following inter-governmental organization attended the Meeting:

ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT/NUCLEAR
ENERGY AGENCY (OECD/NEA)

1.7 Observers from the following international non-governmental organizations also attended the Meeting:

INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS (IAPH)
EUROPEAN CHEMICAL INDUSTRY COUNCIL (CEFIC)
GREENPEACE INTERNATIONAL
INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL
RESOURCES (IUCN)
OIL INDUSTRY INTERNATIONAL EXPLORATION AND PRODUCTION FORUM
(E & P FORUM)
CENTRAL DREDGING ASSOCIATION (CEDA)
SPECIAL RESEARCH MONITORING CENTER (SRMC)

Opening of the Meeting

1.8 In opening the Meeting, the Chairman of the Eighteenth Consultative Meeting, Mr. D. Tromp (the Netherlands) welcomed all participants to the Nineteenth Consultative Meeting. Mr. Tromp confirmed his retirement from the Office of Chairman of the Consultative Meeting and thanked all delegations for their co-operation during the Meetings held since 1990 under his chairmanship.

1.9 The Consultative Meeting elected Mr. A.B. Sielen (United States) as Chairman and Ambassador G.E. do Nascimento e Silva (Brazil) as Vice-Chairman for this Meeting, the next intersessional period and the Twentieth Consultative Meeting. The Meeting agreed to consider the election of a second Vice-chairman before the opening of its Twentieth Consultative Meeting in 1998.

1.10 In opening the proceedings, the Chairman, Mr. A.B. Sielen, thanked all delegations for the trust they put in him and Ambassador Nascimento e Silva in electing them Chairman and Vice-Chairman of the Consultative Meeting. Mr. Sielen noted the extraordinary work carried out by Mr. D. Tromp in guiding Contracting Parties through the historic transition that has taken place in the past five years. He also called attention to the need to provide adequate resources for the Office for the London Convention 1972, reflecting the increasing attention that is being given by governments to global environmental issues. Mr. Sielen also noted that the Convention now enters the critical period of securing widespread acceptance of the new Protocol and that special emphasis must be placed on waste assessment, technical co-operation and assistance, as well as compliance.

Address of welcome

1.11 The Secretary-General of IMO, Mr. W.A. O'Neil, in his welcoming address drew attention to activities carried out by the Secretariat since the last Consultative Meeting, in particular concerning the promotion of the 1996 Protocol to the London Convention 1972 adopted by the Special Meeting of Contracting Parties in 1996. The Special Meeting had requested IMO to consider the allocation of sufficient resources to support technical co-operation under the London Convention 1972 and its 1996 Protocol. Mr. O'Neil noted that he had reviewed the availability of additional financial and staffing resources within IMO and he expressed his regret that it had not been possible to make provisions from the regular IMO budget.

1.12 With regard to UN General Assembly resolution 51/189 concerning the implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, the Secretary-General noted that the IMO Council had expressed its view that any activities that do not fall within IMO's mandate should not be financed from the IMO budget, but would have to be supported by voluntary contributions or through the secondment of staff from IMO Member States to the Secretariat.

1.13 The Secretary-General thanked the outgoing Chairman of the Consultative Meeting, Mr. D. Tromp, for his involvement and leadership, particularly during the preparation and adoption of the 1996 Protocol. He further wished the Consultative Meeting good progress and success with its work.

Adoption of the agenda

1.14 The agenda for the Meeting (LC 19/1) as adopted, is shown at annex 1 and includes under each respective agenda item a list of documents prepared for consideration at the Meeting.

Participation of inter-governmental organizations and international non-governmental organizations

1.15 The Secretary informed the Meeting that an application for observership status had been received from the Special Research Monitoring Center (SRMC) and that the Bureau had agreed to invite that organization on a provisional basis to attend this Consultative Meeting.

1.16 The Meeting agreed to invite inter-governmental organizations to the Twentieth Consultative Meeting and to intersessional meetings of its subsidiary bodies, as follows:

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD)
COMMISSION OF THE EUROPEAN COMMUNITIES (EC)
INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA (ICES)
OSLO & PARIS COMMISSIONS
HELSINKI COMMISSION
PERMANENT COMMISSION FOR THE SOUTH PACIFIC (CPPS)
SOUTH PACIFIC REGIONAL ENVIRONMENT PROGRAMME (SPREP)

1.17 The Meeting at the conclusion of its session decided that the following international non-governmental organizations should be invited:

INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS (IAPH)
EUROPEAN CHEMICAL INDUSTRY COUNCIL (CEFIC)
GREENPEACE INTERNATIONAL
INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES (IUCN)
PERMANENT INTERNATIONAL ASSOCIATION OF NAVIGATION CONGRESSES (PIANC)
OIL INDUSTRY INTERNATIONAL EXPLORATION AND PRODUCTION FORUM (E & P FORUM)
ADVISORY COMMITTEE ON PROTECTION OF THE SEA (ACOPS)
CENTRAL DREDGING ASSOCIATION (CEDA)
SPECIAL RESEARCH MONITORING CENTER (SRMC)

2 STATUS OF THE LONDON CONVENTION 1972 AND OF THE 1996 PROTOCOL THERETO

2.1 The Consultative Meeting noted the report by the Secretary-General (LC 19/2) on the status of the Convention. To date seventy-seven Governments have ratified or acceded to the Convention.

2.2 The Meeting noted that Denmark had signed the 1996 Protocol without reservation as to ratification, and that Germany, Sweden and the United Kingdom had signed subject to ratification (LC 19/2/1). Several Contracting Parties informed the Meeting that they were preparing to sign and/or ratify the Protocol.

2.3 The Secretariat informed the Meeting that for signature of the 1996 Protocol credentials are required reflecting full powers to the holders given either by the Head of State, or by the Minister of Foreign Affairs or by any body assigned by these for such purpose.

2.4 The observer from Greenpeace International suggested speeding up ratification of the Protocol by setting a target for its entry into force by 31 March 1999. This should then be reported to the Commission on Sustainable Development which would meet in April 1999 to review progress with ocean issues.

2.5 The Secretariat informed the Meeting that many Contracting Parties throughout the years since 1975 had submitted copies of their national dumping acts through which the London Convention 1972 is implemented. These were used by States requesting an example when preparing for their national legislation, as well as for research purposes by academic institutions.. The Secretariat proposed that Contracting Parties submit to the Secretariat a copy of their national laws prepared to implement the 1996 Protocol. The Meeting agreed to this proposal.

2.6 The delegation of Australia recalled that in 1994 it had submitted a declaration of non-acceptance to resolution LC.49(16) concerning the phasing out of sea disposal of industrial waste. That delegation informed the Meeting, that on 29 October 1997, Pasminco had ended sea disposal of jarosite waste from its Hobart smelter, two months ahead of expiry of its permit. A co-treatment process has been developed generating a new product, paragoethite, which will be fed to its smelter at Port Pirie, South Australia. This process will eliminate the production of jarosite at the Hobart Smelter and the need to dispose of jarosite at sea.

2.7 The Consultative Meeting was further informed that the co-treatment involving two of Pasminco's smelting sites would not have been possible without the relative, close proximity of these sites. This initiative established new environmental standards in waste stream management for the zinc and lead industries.

2.8 The end of disposal at sea of industrial waste by Australia meets the international commitments that the Australian Government had given under the London Convention 1972 to cease disposal of jarosite waste by the end of 1997. In light of these developments, the Australian Government announced that it would commence without delay the appropriate constitutional and legal procedures to accept in full the amendments to Annexes I and II to the London Convention 1972 as contained in resolution LC.49(16).

2.9 The Meeting considered the status of compliance with the notification and reporting requirements under article VI(4) of the London Convention 1972 (LC 19/2/2). It was noted that during recent years the number of Contracting Parties fulfilling their reporting obligations had dropped to below 50%.

2.10 The observer from Greenpeace International informed the Meeting that, in 1996, it had requested information from France regarding disposal operations carried out by the French navy in French Polynesia in the Pacific Ocean. Although at that time the French authorities had promised to provide this information, no reply had yet been provided.

2.11 The French delegation indicated that the above request had been forwarded to its Ministry of Defence. Any response on these activities that might supplement the information brought to the attention of the Special Meeting of Contracting Parties in 1996 would be communicated to the Secretariat as soon as it became available. The French delegation indicated that the disposal operations could not have been carried out without taking into account the relevant provisions of the London Convention 1972.

3 ADMINISTRATIVE ARRANGEMENTS IN VIEW OF THE PROTOCOL

Rules of Procedure

3.1 The Secretariat noted that the Rules of Procedure for the Consultative and Special Meetings of Contracting Parties to the London Convention 1972, originally adopted by the First Consultative Meeting in 1996 (LDC I/16, Annex II), had been amended by the Special Meeting of Contracting Parties in 1996, as recommended by the Eighteenth Consultative Meeting in resolution LC.53(18) on Procedure for Consideration and Adoption of the 1996 Protocol to the London Convention. The amendments were made in regard to voting procedures (Rule 28) and to include Arabic as an official language for the purposes of the Special Meeting (Rule 24). The Meeting was invited to note that the Rules of Procedure it has to apply were those used before the Special Meeting adopted the above amendments (LC 19/3).

3.2 The delegation of Egypt, speaking on behalf of the Arabic speaking delegations noted with concern that Arabic is not considered by the Secretariat as an "official language" at Consultative Meetings of Contracting Parties to the London Convention 1972, and has accordingly been deleted from the list of official languages set out in the Rules of Procedure adopted by the Special Meeting in 1996. The Arabic speaking countries expressed their strong reservation concerning the deletion of Arabic as an official language and requested the Secretariat to reconsider this question in negotiations with the IMO administration. The Arabic speaking countries announced that they would bring this matter up at the next Consultative Meeting requesting it to confirm Arabic as an official language, thus being in line with current procedures applicable in other organizations of the United Nations system.

3.3 The Consultative Meeting expressed its regret with this situation and acknowledged that the contributions by Arabic speaking countries to the proceedings of the Meeting were important, also in light of the desire to extend the membership under the London Convention 1972 and the 1996 Protocol. The Meeting agreed to consider the amendment of the Rules of Procedure at the next Consultative Meeting.

3.4 The Secretariat indicated that it would contact the Secretary-General and the Conference Division of IMO on this matter as requested by the Arabic speaking delegations.

3.5 The delegation of the United States noted that it would need to seek instructions with regard to related financial implications that would have to be met by IMO. The delegation of the United Kingdom pointed out that IMO would need to be consulted on the financial implications before the Rules of Procedure were amended.

3.6 The Meeting agreed to review its Rules of Procedure at the next Consultative Meeting, in particular regarding voting procedures as revised by the Special Meeting in 1996. Some delegations expressed the view that this modification was an improvement over the old rule; it had worked well at the Special Meeting and should therefore be maintained.

3.7 Some delegations expressed general doubt on the status of the Rules of Procedure as presented.

3.8 The Meeting confirmed that for the time being, the old Rules of Procedure would apply, that is the text before its amendment by the Special Meeting in 1996.

Administrative arrangements and other preparations necessary to guarantee the smooth transition from the London Convention 1972 to its 1996 Protocol

3.9 The Consultative Meeting considered possible administrative arrangements and other preparations necessary to guarantee the smooth transition from the London Convention 1972 to its 1996 Protocol (LC 19/3/1), and in particular:

- .1 interim or administrative arrangements before the first Meeting of Contracting Parties to the 1996 Protocol can be convened;
- .2 the preparation of implementation and interpretation of the 1996 Protocol prior to its entry into force;
- .3 the implementation and interpretation of the London Convention 1972 in light of the 1996 Protocol; and
- .4 the development of a long-term workplan.

3.10 A number of delegations made suggestions supporting the expeditious preparation and transition to the regime of the 1996 Protocol.

3.11 The delegation of the United Kingdom recalled that it had submitted a document on the relationship between the 1996 Protocol and the London Convention 1972 to the Special Meeting of Contracting Parties in 1996 (LC/SM 1/4/8). It offered to submit an update of that document to the next Consultative Meeting and to act as a lead country for collecting suggestions made intersessionally on the above document.

3.12 The delegation of Canada offered to submit a document to the next Consultative Meeting concerning compliance issues in relation to the Convention and the Protocol and that it would welcome suggestions by delegations on this matter.

3.13 The view was expressed by the delegations of Mexico and the United States that, while agreeing to consider compliance with the provisions of the London Convention 1972, including doing so with a view, to the extent appropriate, to consider compliance in the transition phase towards the Protocol, it was premature to develop or establish procedures and mechanisms under article 11 of the 1996 Protocol. This article provides that no later than two years after entry into force of the 1996 Protocol such procedures and mechanisms shall be established.

3.14 The Consultative Meeting, stressing the importance of paying proper attention to these issues within the near future, welcomed the initiatives by the United Kingdom and Canada and encouraged Contracting Parties to provide suggestions and comments intersessionally to these delegations.

National integrated coastal management programmes and the 1996 Protocol

3.15 The Secretariat introduced a document entitled: "Addressing the implementation of the 1996 Protocol to the London Convention 1972 within the framework of national integrated coastal management programmes" (LC 19/INF.2). This document had been prepared by IMO interns in the Summer of 1997. It provided an outline of the basic principles of Integrated Coastal Management (ICM) and existing ICM Guidelines together with an analysis of the relation between the 1996 Protocol and the ICM framework. The authors suggested that national ICM programmes could provide an appropriate framework for the implementation of the 1996 Protocol.

3.16 The Meeting noted with appreciation the analysis provided in this document.

3.17 On a request by the delegation of the Republic of Korea, the Secretariat announced that it would submit to the next Consultative Meeting a status report on the Regional Programme for Marine Pollution Prevention and Management in the East Asian Seas, a GEF project for which IMO acts as the executive agency.

4 SCIENTIFIC GROUP: CONSIDERATION OF REPORTS OF THE NINETEENTH AND TWENTIETH MEETINGS

4.1 The Chairman of the Scientific Group, Mr. J.H. Karau (Canada), provided a comprehensive review of the nineteenth and twentieth meetings of the Scientific Group (LC 19/4), highlighting major discussions and actions recommended by the Scientific Group as reflected below.

Waste Assessment Guidance: development of generic and waste-specific guidance

4.2 The Consultative Meeting considered the draft "Guidelines for the Assessment of Wastes or Other Matter that may be Considered for Dumping" (LC/SG 20/12, annex 2) with a view to their adoption. The Scientific Group had developed these generic guidelines to replace the Waste Assessment Framework that had been amended by the Seventeenth Consultative Meeting (LC 17/14, paragraph 4.11; LC/SG 18/2), to assist in the implementation of the London Convention 1972 and in the preparation of the entry into force of the 1996 Protocol.

4.3 The United States delegation noted that the Consultative Meeting could adopt guidelines for the London Convention 1972 but not for the 1996 Protocol. In this regard, the generic guidelines prepared by the Scientific Group could be adopted as generic guidance for the implementation of the London Convention 1972 with the inclusion of some amendments to better address the provisions of the existing convention. However, it was not possible for the Consultative Meeting to adopt these guidelines as an instrument to facilitate the implementation of the 1996 Protocol because only Contracting Parties to the 1996 Protocol could adopt guidelines for the implementation of its provisions. Many delegations supported this view. Some delegations proposed that a recommendation from the Consultative Meeting, calling upon the Parties to the 1996 Protocol to adopt the guidelines after the Protocol has entered into force was both possible and useful. It was noted that such a recommendation would help ensure a smooth transition between the London Convention 1972 and the 1996 Protocol.

4.4 The Consultative Meeting established a Working Group to review the draft guidelines (LC/SG 20, annex 2), taking into account the above comments, and further to consider texts of a draft resolution (LC 19/WP.3) and a draft recommendation to Contracting Parties to the 1996 Protocol (LC 19/WP.4) to adopt the guidelines at their first Meeting. The Working Group was further requested to review the specific guidance prepared by the Scientific Group and recommended for adoption by the Consultative Meeting.

4.5 The Working Group met under the chairmanship of Mr. J.H. Karau (Canada). Delegations from the following countries and organizations participated in the meeting of the Working Group: Australia, Belgium, Brazil, Canada, China, Germany, Greece, Japan, Netherlands, New Zealand, Norway, Republic of Korea, Sweden, United Kingdom, United States, IAPH, CEFIC, Greenpeace International, IUCN, E & P Forum and SRMC.

4.6 The Working Group proposed revisions to the draft generic guidelines intended to clarify the relationship of the guidelines to the provisions of the London Convention 1972 and to those of the 1996 Protocol, in particular their consistency with the provisions of Annex 2 to that Protocol, "Assessment of Wastes or Other Matter that may be considered for Dumping".

4.7 One delegation expressed concern about the use of the screening provision (paragraph 12 of the draft Guidelines). In the view of that delegation such use could be viewed as a tool for reconsidering the dumping of wastes or other matter in contravention of Annex I which explicitly prohibits such dumping. Another delegation noted that it had raised a similar concern during discussions in the Working Group and that, as a result, paragraphs 2 and 12 of the draft Guidelines had been revised. That delegation further noted that these revisions made it clear that the application of the Guidelines cannot result in the dumping of wastes or other matter that is explicitly prohibited under Annex I to the London Convention 1972.

4.8 The Meeting adopted the revised Guidelines as generic guidance for the implementation of the London Convention 1972 and recommended that Contracting Parties to the 1996 Protocol should adopt these Guidelines when the 1996 Protocol enters into force. The Guidelines, as adopted, are shown in annex 2 to this report.

4.9 The Consultative Meeting took note of the progress made by the Scientific Group concerning the development of specific waste assessment guidance. The Meeting agreed that the Scientific Group should continue to refine guidance prepared in regard to:

- .1 dumping of inert, inorganic geological material;
- .2 dumping of fish waste, or material resulting from industrial fish processing operations; and
- .3 dumping of bulky items primarily comprising iron, steel, etc.

4.10 The Meeting further requested the Scientific Group to continue its work in preparing further guidance on:

- .1 sewage sludge;
- .2 platforms or other man-made structures at sea;
- .3 vessels; and
- .4 organic material of natural origin.

4.11 The Consultative Meeting further agreed to employ a side-by-side format for the generic guidelines and the waste specific guidelines in order to demonstrate their complementary relationship. The left-hand column would portray the generic "Guidelines for the Assessment of Wastes or Other Matter that May be Considered for Dumping". The right-hand column would portray commentary indicating additional advice in bold type. Instances in which the provisions of the generic guidance were not relevant to the specific waste guidance would be identified and explained in italics. In the absence of a commentary, the provisions of the generic guidance set out in the left-hand column were in themselves adequate and appropriate for the consideration of the specific wastes. Adherence to the waste specific guidance would be neither a more restrictive nor a less restrictive regime than that of the generic guidelines.

4.12 An example of the agreed format is shown at annex 3 to this report.

4.13 The Consultative Meeting encouraged Contracting Parties to provide input for consideration by the Scientific Group at its next meeting and to comment on proposals made concerning the inclusion of information on relevant land-based disposal alternatives or treatment options, in particular for incorporation in guidance applicable to the dumping of sewage and the dumping of platforms or other man-made structures at sea.

4.14 In relation to the draft waste assessment guidance concerning dumping of platforms or other man-made structures at sea, the Scientific Group drew the attention of the Consultative Meeting to the fact that the IMO Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and Exclusive Economic Zone (resolution A.672(16)) only address the removal of offshore installations and structures, but not their disposal. The Scientific Group further recommended that the Consultative Meeting should request IMO to review these Guidelines and Standards in light of developments since their adoption in 1989.

4.15 The Consultative Meeting considered the basis for requesting IMO to review its guidelines. It was further noted that the review process was unlikely to be considered a priority item in the IMO work programme at this stage.

4.16 The Consultative Meeting agreed:

- .1 to continue the preparation of waste specific guidance concerning the dumping of platforms or other man-made structures at sea;
- .2 to ensure that such guidance takes account of the latest scientific and technological developments in the field;
- .3 to provide that disposal be considered on a case-by-case basis, and that the weight/depth standard of IMO resolution A.672(16) should not be viewed as the only factor in developing guidance concerning the dumping of platforms or other man-made structures at sea under the London Convention 1972; and
- .4 that there was no need at this stage to request IMO to review its Guidelines and Standards in this regard..

Global Programme of Action

4.17 The Meeting considered a proposal from the Scientific Group that the Secretariat should provide information on regulatory management of sea disposal of sewage sludge, and on the assessment of effects on the marine environment of such disposal operations, to the clearing-house on sewage under development by WHO. The Meeting requested the Secretariat to consider the possibility of such a contribution during consultations with WHO and UNEP.

Management of spoilt cargo

4.18 The Secretariat was requested to distribute again through a Circular letter the decisions made by the Seventeenth Consultative Meeting with regard to spoilt cargo, urging all IMO Member States and Contracting Parties to the London Convention 1972 to apply the relevant guidance, and to notify the Secretariat of any such dumping activities.

Reporting on monitoring and dumping activities

4.19 The Consultative Meeting encouraged Contracting Parties to report on their monitoring activities, including their national strategies and involvement in regional monitoring programmes for evaluation by the Scientific Group.

4.20 With regard to national reports on dumping activities, the Meeting urged Contracting Parties which have not submitted notifications on permits issued during recent years, to do so as soon as possible. With regard to the draft report on permits issued in 1995 (LC 19/WP.1), the Meeting urged Contracting Parties to submit notifications and comments before **15 January 1998**.

Future work programme

4.21 The Scientific Group developed a three-year programme identifying priority dates for completion of work on various issues (LC/SG 10/12, annex 8). The Consultative Meeting reviewed this programme under item 8 of its agenda (see section 8 below).

5 TECHNICAL CO-OPERATION AND ASSISTANCE PROGRAMME UNDER THE LONDON CONVENTION 1972

5.1 The Secretariat introduced the draft Technical Co-operation and Assistance Programme under the London Convention 1972 (LC 19/5), which was based on the Framework for a Technical Co-operation and Assistance Programme under the London Convention 1972 as adopted in 1996 by the Special Meeting of Contracting Parties (resolution LC.55(SM)).

5.2 The Secretariat further introduced the Status Report of Current Technical Co-operation and Assistance Projects under the London Convention 1972 (LC 19/WP.2). The Secretariat indicated that the execution of 3 of the current 7 projects had been delayed because of a staffing shortage within the Office for the London Convention 1972, which, if no solution was found before the end of 1997, could result in a withdrawal of the funds for these projects by the donors.

5.3 The Meeting recalled that the Secretary-General of IMO, in his opening address, had informed the Meeting that he had reviewed the availability of additional financial and staffing resources within IMO to promote technical co-operation projects which would facilitate the implementation of the London Convention 1972. He regretted that it was not possible to allocate further support from IMO's budget given the constraints and priorities set by the IMO Council.

5.4 In view of this situation, several Contracting Parties indicated that they would continue funding suitable technical co-operation projects under the Convention on a voluntary basis.

5.5 In reviewing the draft Technical Co-operation and Assistance Programme, the Meeting considered a proposal to carry out technical co-operation activities under the Convention independent of the IMO Integrated Technical Co-operation Programme. In cases where requests for technical assistance were made, the Secretariat should, in addition to co-operation from IMO, seek for co-operation with other UN Agencies active in the field of marine pollution prevention.

5.6 After further initial observations had been made regarding the draft Programme and the suggestion by the Secretariat to establish a Technical Co-operation Panel under the Convention, the Meeting established a Working Group under the chairmanship of Mr. J. Lomónaco (Mexico). Delegations from the following countries and organizations participated in the meeting of the Working Group: Argentina, Bahamas, Brazil, Canada, Chile, China, Colombia, Cyprus, Denmark, Finland, France, Germany, Greece, Italy, Japan, Mexico, the Netherlands, Panama, Republic of Korea, Saudi Arabia, Solomon Island, Spain, Sweden, United Kingdom, United States, Hong Kong (China) and SRMC.

5.7 The Working Group was directed to:

- .1 review in detail the draft Technical Co-operation and Assistance Programme under the London Convention 1972 (LC 19/5), including the preparation of management options to carry out projects under the Programme; and
- .2 consider a mechanism to advise the Consultative Meeting on matters concerning technical co-operation, e.g., a Technical Co-operation Panel and its terms of reference.

The observations and recommendations made by the Working Group are reflected in paragraphs 5.8 - 5.16 below.

5.8 In reviewing the draft Programme, the Working Group paid particular attention to: the funding options for individual projects under the Programme; the relationship between the Programme and the IMO

Integrated Technical Co-operation Programme (ITCP); and the supporting arrangements for the management of individual projects.

5.9 In recalling that an assessment of the overall effectiveness of the Programme should be carried out on a regular basis, as mentioned in section 6 of the draft Programme, the Working Group noted that this would require a clear commitment from the Consultative Meeting.

5.10 The Working Group recommended the adoption of the Technical Co-operation and Assistance Programme under the London Convention 1972.

5.11 In considering the issue of the establishment of a separate, subsidiary body, e.g., a Technical Co-operation Panel, the Working Group identified the tasks that would need to be carried out in relation to the Technical Co-operation and Assistance Programme, as follows:

- .1 to review the Technical Co-operation and Assistance Programme in light of the implementation of the London Convention 1972 or its 1996 Protocol;
- .2 to advise on the development of projects under the Programme;
- .3 to advise on fund raising, including identification of resources and allocation of funds; and
- .4 to review the effectiveness of the Programme, as well as the results of individual projects.

5.12 The Working Group was aware of the fact that, if a separate body was established, its meetings would have to be conducted in English only, i.e., at no cost to IMO.

5.13 The Working Group considered that if a review of the Programme, as mentioned in paragraph 5.11.1 above, was required at a general, or strategic level, this would be a task for the Consultative Meeting. However, if changes had to be made based on problems of a scientific and technical nature concerning the implementation of the Convention, this would primarily be a task for the Scientific Group.

5.14 With regard to reviewing the effectiveness of the Programme, as mentioned in paragraph 5.11.4 above, the Working Group considered that this was a task for the Consultative Meeting, whereas reviewing the results of individual projects would be a task for the Scientific Group. For advice needed by the Secretariat on the development of individual projects under the Programme (paragraph 5.11.2 above), the Working Group considered that the Secretariat could liaise with the Scientific Group.

5.15 With regard to advice on fund-raising and other issues, as mentioned in paragraph 5.11.3 above, the Working Group considered that, intersessionally, the Secretariat should contact the Chairman and Vice-Chairmen of the Consultative Meeting, together with the Chairman of the Scientific Group. If necessary, Heads of Delegation could be consulted in this regard either by correspondence, or prior to regular meetings under the Convention.

5.16 In view of the above considerations, the Working Group recommended that there would be no need to establish a separate subsidiary body charged with guidance on technical co-operation issues under the Convention.

5.17 The Consultative Meeting endorsed the above conclusions of its Working Group and adopted the Technical Co-operation and Assistance Programme under the London Convention 1972 as shown in annex 4 to this report.

5.18 The Meeting further agreed to invite Contracting Parties to submit information to the Secretariat on their technical co-operation and assistance programmes which would facilitate implementation of the now adopted Technical Co-operation and Assistance Programme under the London Convention 1972.

5.19 The Meeting noted that the shortage of staff within the Office for the London Convention 1972 has resulted in a delay of three projects as mentioned in the status report by the Secretariat (LC 19/WP.2). It also noted that there was no guarantee of sufficient funds under the management options identified in section 5 of the Programme to carry out future projects.

5.20 The Meeting welcomed the offer by the delegation of South Africa to investigate possibilities for assisting the Secretariat with regard to the implementation of the following two projects mentioned in the above status report:

- .1 the development of national profiles on marine pollution prevention and management in Comoros, Namibia, Madagascar and Seychelles; and
- .2 the development of a regional network on integrated waste management in Eastern and Southern Africa.

5.21 The delegation of South Africa announced the offer of its Government to host the IMO/UNEP Workshop on Waste Management and Marine Pollution Prevention in Southern and Eastern Africa, which is planned to be held in Cape Town from 1 to 4 April 1998.

5.22 The Meeting expressed its appreciation to South Africa. It noted that the invitations to the eighteen participating countries had been sent out earlier this month and that a draft programme for the Workshop had been completed during this Meeting.

5.23 The Consultative Meeting was informed that the report on the status of the development of the Waste Assessment Guidance Training Set (LC 19/INF.5) and that much work was still necessary to complete a first comprehensive version of the Training Set as a major input into the IMO/UNEP Workshop.

5.24 Although several Contracting Parties as well as the Basel Convention Secretariat had already provided useful material for the Training Set, the Secretariat would seek further contributions from experts who have been involved with the development of the Waste Assessment Guidance itself and from institutions active in a particular field of expertise relevant to the Training Set, such as the assessment of environmental impacts, waste management, monitoring design and implementation, as well as from experts involved in the development of educational material.

6 MATTERS RELATED TO THE DISPOSAL AT SEA OF RADIOACTIVE WASTES

Co-ordinated Research and Environmental Surveillance Programme Related to Sea Disposal of Radioactive Waste: OECD/NEA CRESP Final Report (1981-1995)

6.1 The Meeting recalled that OECD/NEA, under its Multilateral Consultation and Surveillance Mechanism for Sea Dumping of Radioactive Waste, in 1980 established its Co-ordinated Research and Environmental Surveillance Programme (CRESP) regarding sea disposal of radioactive waste to monitor the marine environment in relation to disposal activities carried out under the this Mechanism, and further, to strengthen the scientific and technical basis for future assessments of the N.E. Atlantic dumpsite.

6.2 The Meeting further noted that the programme was concerned essentially with the radiological implications and effects on the marine environment of dumping activities carried out in the N.E. Atlantic. It increased the site-specific scientific data base related to the oceanographic and biological characteristics of

the dumping area through radioanalyses of sediment, biota and water, and measurements of geological, geochemical, biological and physical oceanographic characteristics including currents in the vicinity of the dumpsite. Since 1981, ten reports, including several site assessment studies, have been published. The final CRESP report providing an overview of its 1981-1995 activities was distributed under LC 19/6.

6.3 Subsequent to the decision of the Sixteenth Consultative Meeting in 1993 to prohibit the disposal at sea of any radioactive wastes and other radioactive matter (resolution LC.51(16)), OECD's Nuclear Energy Agency terminated CRESP on the understanding that, if and when judged appropriate, an *ad hoc* group could be set up with a specific mandate to address issues in the areas related to previous CRESP activities.

6.4 The Meeting was further informed that the OECD Steering Committee of the Nuclear Energy Agency has emphasized that any future responsibilities related to previous disposal activities carried out under the Multilateral Consultation and Surveillance Mechanism would rest with the Member countries which had been involved in the dumping operations.

6.5 The United States delegation was pleased to have participated in the excellent technical work of OECD/NEA's CRESP. Throughout its fifteen year history, CRESP continued to provide improved scientific and technical bases for conducting assessments of the N.E. Atlantic radioactive waste disposal site. CRESP's unique strength was the international composition of its team and the collaborative spirit through which assessment goals and the necessary steps to reach these goals were mutually agreed upon. The tasks for completing the site assessments were achieved through close co-operation among the participating countries, particularly in such areas as joint sea expeditions, sample collection, their analysis and data interpretation. Annually convened Executive Group and Task Team meetings kept the programme well focused.

6.6 The United States further appreciated OECD's dedication to finding solutions to the complex questions associated with disposal of radioactive waste both through negotiation and a sound scientific approach which also contributed to the success of CRESP. The United States learned much from these activities and would encourage application of the CRESP approach and operational framework to any future site and pollutant assessment needs.

6.7 Several other delegations joined the United States delegation in acknowledging the achievements of CRESP. The Consultative Meeting expressed its gratitude for the support provided through concerted activities carried out under CRESP.

Assessment of the Impact of Radioactive Waste Dumping in the Arctic Seas: International Arctic Sea Assessment Project (IASAP) of the IAEA

6.8 The Meeting recalled that the International Atomic Energy Agency (IAEA), in response to a request by the Fifteenth Consultative Meeting launched, in 1993, the above project to assess the risks to human health and the environment from radioactive waste dumped in the Barents and Kara Seas, and to consider the feasibility of and justification for retrieving the waste for land storage and/or disposal. The Meeting took note that the IAEA completed the project in 1996. The Secretariat had distributed the executive summary of the final report under LC.2/Circ.379 of 24 February 1997, indicating that the complete report was being prepared for printing by IAEA and would be made available for evaluation and discussion at the Nineteenth Consultative Meeting. The Meeting was informed that the printing of the complete report had been delayed and that a review of that report would have to be deferred to the Twentieth Consultative Meeting (LC 19/6/1).

6.9 The Meeting was informed of the conclusions reached by the IAEA as follows:

- .1 monitoring has shown that releases from identified dumped objects are small and localized to the immediate vicinity of the dumping sites. Overall, the levels of artificial radionuclides in the Kara and Barents Seas are low and the associated radiation doses are negligible when compared with those from natural sources;
- .2 projected future doses to members of the public in typical local population groups arising from radioactive wastes dumped in the Kara Sea are very small. Projected future doses to a hypothetical group of military personnel patrolling the foreshores of the fjords in which wastes have been dumped are higher and comparable in magnitude to doses from natural sources;
- .3 doses to marine organisms are insignificant in the context of effects on populations; and
- .4 it is concluded that, on radiological grounds, remediation is not warranted. Controls on the occupation of beaches and the use of coastal marine resources and amenities in the fjords of Novaya Zemlya must, however, be maintained.

6.10 Recommendations derived from the above conclusions were noted as follows:

- .1 efforts should be made to locate and identify all high-level waste objects;
- .2 institutional control should be maintained over access and activities in the terrestrial and marine environments in and around the fjords of Novaya Zemlya in which dumping had been carried out;
- .3 if at some time in the future it was proposed to terminate institutional control over areas in and around these fjords, a prior assessment should be made of doses to any new groups of individuals who may be potentially at risk; and
- .4 in order to detect any changes in the condition of the dumped high-level wastes, a limited environmental monitoring programme at the dump sites should be considered.

6.11 The delegation of the Russian Federation expressed thanks for the work carried out by the IAEA. That delegation noted that the military personnel, in preparing for and carrying out the dumping operations, took precautionary safety measures and, accordingly, the impacts were much less than had been anticipated five years ago. Measurements carried out during joint Norwegian-Russian surveillance expeditions have shown that the levels of radioactivity in the Kara and Barents Seas were lower than those measured in the North, Baltic and Irish Seas. Monitoring activities will be continued in the future.

6.12 The delegation of the Solomon Islands emphasized that the conclusions made available at the Meeting should not give rise to complacency, but that the need for continuous surveillance and monitoring activities must be emphasized.

6.13 The observer from Greenpeace International pointed out that it was difficult at this stage to judge potential long-term effects and he emphasized the need for continued monitoring of the marine environment as a measure to ensure the protection of human health. He questioned whether it could be assumed that this would ensure adequate protection for marine organisms. Greenpeace International expressed the need to evaluate the material set out in the final IASAP report.

6.14 The delegation of Canada, in response to the observer from Greenpeace International, noted that the IASAP study had indeed considered long-term effects arising from the dumped wastes, particularly high-level wastes. The analyses of long-term consequences within the IASAP project had, in line with a precautionary approach, included conservative, worst-case, analyses of potential effects. Furthermore, the IASAP study specifically included an estimation of radiation doses and effects to marine organisms in addition to the consideration of human radiological responses. On the basis of the estimation and analysis of doses to marine organisms it was concluded that such doses were insignificant in the context of effects on organism populations.

Joint Norwegian-Russian Investigations (1992-1994) of Radioactive Contamination in the Kara Sea

6.15 The delegation of Norway introduced the results from joint Norwegian-Russian investigations carried out from 1992 to 1994 in the Kara Sea (LC 19/INF.4). The report is the product of very successful co-operation between Norway and the Russian Federation and was presented on behalf of both these States. The Meeting was informed that levels of artificially produced radionuclides in sediments collected in the very close vicinity of most dumped objects have demonstrated that leakages have occurred. However, no contribution from dumped wastes to the radioactivity in waters, sediments and biota in the open Kara Sea can be observed. The Norwegian delegation confirmed the statement made by the Russian delegation (see paragraph 6.11 above) that the levels of radionuclides in waters, sediments and biota in the Kara Sea were very low when compared to those of the Irish Sea, Baltic Sea and the North Sea. The recommendations from the joint study are that monitoring for detecting future contamination of the marine environment be maintained and that effort should be devoted to improving the models used for dose assessment purposes. The implementation of these recommendations is currently being discussed among experts from the Russian Federation and Norway.

6.16 The Meeting expressed its thanks for the information set out in the above report. It would also welcome receiving in future any results of monitoring activities and surveillance carried out in relation to radioactive materials dumped in the Arctic Seas.

6.17 The delegation of Norway also drew attention to the summary report of the Arctic Assessment entitled "Arctic Pollution Issues: A State of the Arctic Environment Report" undertaken by the Arctic Monitoring and Assessment Programme (AMAP) which is a joint effort among the eight Arctic States (Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States). Copies of this report were distributed to delegations at the Consultative Meeting. It summarizes the state of the arctic environment, marine, terrigenous and atmosphere, from wide perspectives including the effects of climate change, ozone depletion, oil exploitation, heavy metals, persistent organic pollutants and radioactivity and contains descriptions of processes, human populations and habits, human health, flora and fauna. The complete text of the assessment, comprising chapters on arctic contaminants will be released during 1998.

6.18 The Meeting expressed its appreciation for this information and thanked the Norwegian delegation for bringing it to its attention.

Co-operation between Contracting Parties to solve problems faced by the Russian Federation in relation to low-level liquid radioactive waste processing

6.19 The United States delegation reported on trilateral Norway-Russian Federation-United States co-operation to upgrade and expand processing facilities for liquid low-level radioactive waste from the Russian ice-breaker fleet, as well as from the decommissioning of nuclear submarines from the Russian Navy (LC 19/INF.6). The Consultative Meeting noted that the construction of new facilities which upgrade and expand existing facilities will be completed in 1998. Whilst the Russian Federation is voluntarily complying with the 1993 amendments to Annex I to the London Convention 1972 concerning disposal at sea of radioactive wastes and other radioactive matter (resolution LC.51(16)), it currently lacks the capacity to process all its liquid radioactive wastes. The Meeting was pleased to hear that the Russian Federation will soon be able to accept these amendments.

6.20 The Finnish delegation reported that in early summer 1997 Finland completed its work concerning the purification and concentration of liquid radioactive wastes from nuclear-powered ice-breakers of the Russian Atomflot. Both the Finnish and Russian authorities expressed their interest in continuing their co-operation as regards the liquid radioactive waste from decommissioned nuclear submarines. The Meeting was further informed of similar activities that had been carried out several years ago by Finland in co-operation with Estonia.

6.21 The Finnish delegation also noted that the extension of processing capacity would ultimately enable the Russian Federation to comply with the provisions of the 1993 Amendments to Annex I to the London Convention 1972.

6.22 Several delegations welcomed the information on bilateral and multilateral co-operation among Contracting Parties, demonstrating their readiness to assist each other in solving specific problems for the sake of the environment and human health.

Inventory of radioactive material entering the marine environment

6.23 The representative of the IAEA reported on the status of the IAEA work related to establishing and maintaining the inventory of radioactive material entering the marine environment. The inventory will include three separate elements:

- .1 disposal at sea of radioactive waste;
- .2 accidents and losses at sea involving radioactive material; and
- .3 discharges of radioactive substances into the atmosphere and aquatic environments.

6.24 The first report on disposal at sea of radioactive waste was published in 1991 as IAEA Technical Document No. 588 (LC 14/INF.5). This report is being updated to include information on dumping of radioactive wastes carried out by the former USSR in the Arctic Seas and in the North-West Pacific. The report will also include information on minor sea disposal operations carried out by some other countries and reported to the IAEA since 1991. The updated document will be published early in 1998.

6.25 The report on accidents and losses is in an advanced state as well, and is intended to be published in 1998. However, the responses of Contracting Parties to enquiries regarding information related to losses of sealed radiation sources at sea had so far been relatively poor.

6.26 The representative of the IAEA encouraged the Contracting Parties to make efforts to provide this information. The report will, however, be published as an interim document including information made available within the next few months.

6.27 The data on discharges of radioactive substances into the atmosphere and aquatic environments has been for many years collected by UNSCEAR (United Nations Scientific Committee on the Effects on Atomic Radiation) and published periodically in UNSCEAR reports "Sources and Effects of Ionizing Radiation". The IAEA is currently taking over the responsibility of developing and maintaining this database. This work is expected to support the IAEA's activities in implementing the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA) and also to serve the forthcoming Joint Convention on the Safety of Spent Fuel Management and Safety of Radioactive Waste Management.

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

6.28 The representative of the IAEA informed the Consultative Meeting of the adoption of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management which took place 5 September 1997 in Vienna. The objectives of this Joint Convention are to achieve and maintain a high level of safety worldwide in spent fuel and radioactive waste management. It is intended to ensure that, during all stages of spent fuel and radioactive waste management, there are effective defences against potential hazards so that individuals, society, and the environment are protected from harmful effects of ionizing radiation, now and in the future. It is also intended to prevent accidents with radiological consequences and mitigate their consequences should they occur during any stage of spent fuel or radioactive waste management.

6.29 This joint Convention was opened for signature on 29 September 1997 and by 6 October 1997 it had been signed by 23 IAEA Member States, 16 of them having one or more active nuclear power plants. The Convention shall enter into force on the ninetieth day after the date of deposit of the twenty-fifth instrument of ratification, including instruments of fifteen States each having an operational nuclear power plant.

The concept of *de minimis* for radioactive substances under the London Convention 1972

6.30 The representative of the IAEA informed the Meeting that the instructions provided by the Eighteenth Consultative Meeting to the IAEA concerning the development of "quantitative limits for *de minimis* (exempt) levels of radioactivity" for the purpose of the Convention had been unclear. Accordingly, the IAEA had not continued its work in this regard. However, in the IAEA Financial Plan for 1998, the provisions for continuation of the work have again been allocated (LC 19/6/2).

6.31 The Meeting considered the two options provided by the IAEA concerning the task it could carry out in fulfilling the above requests. The Meeting agreed that the IAEA should be requested to provide guidance for making judgements on whether materials planned to be dumped could be exempted from radiological control or whether a specific assessment was needed. The IAEA would then further be requested to provide guidance to national authorities responsible for conducting specific assessments.

6.32 The Meeting also emphasized that any dumping activity applying a *de minimis* regime once this was adopted by the Consultative Meeting must not undercut the object and purpose of the prohibition of sea disposal of radioactive wastes and other radioactive matter adopted by resolution LC.51(16).

Plans to disposal of high-level radioactive wastes into the sea-bed

6.33 The Meeting was reminded of a report submitted by Greenpeace International to the Eighteenth Consultative Meeting in 1995 regarding information on plans by the company Oceanic Disposal Management (ODM), Switzerland, to carry out disposal of radioactive wastes into the seabed in violation of Resolution LC 51(16) adopted in 1993 (LC 18/11/Rev.1, paragraphs 8.11-8.13). These plans were based on contacts made

by the company with several States. The Meeting noted that one of these, South Africa, had reported that adequate steps had been taken to discourage any contacts with the company concerned.. The Secretariat¹, the Chairman and the IAEA had since attempted to contact the company concerned to bring to its attention the current provisions of the London Convention 1972 and to ensure compliance with them.

6.34 The Meeting noted that none of the individuals and agencies endeavouring to contact the company concerned had been successful in achieving such contact. The Meeting requested the Secretariat to prepare a circular letter highlighting the provisions of the London Convention and its 1996 Protocol emphasizing that practices involving sea dumping of radioactive and industrial wastes are prohibited under both instruments. The IAEA was requested to continue its attempts to ensure that its publications and studies were not misrepresented in public media whether for commercial or other purposes.

6.35 The Meeting emphasized the importance for Contracting Parties and competent international bodies such as IAEA to take effective action to ensure compliance with the Convention.

7 DECISIONS BY THE COMMISSION ON SUSTAINABLE DEVELOPMENT (CSD) RELEVANT TO THE LONDON CONVENTION 1972

7.1 An overview of main activities carried out since 1995 by the UN General Assembly and the UN Commission on Sustainable Development (CSD) concerning issues in the field of marine environmental protection which are of particular relevance to the Consultative Meeting was provided by the Secretariat (LC 19/7).

7.2 The Meeting recalled that the UN General Assembly resolution 51/189 on "Institutional arrangements for the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities" called upon States, in relation to the clearing-house mechanism to be developed under the Global Programme, to take action in the governing bodies of relevant intergovernmental organizations. In this regard IMO had been requested to take the lead in co-ordinating the development of the clearing-house mechanism with respect to oil and litter in the marine environment.

7.3 It was also recalled that the Secretary-General, in his opening address, had indicated that, unless voluntary financial contributions would be provided from Member States, IMO would limit its contribution to the Global Programme of Action only to the evaluation of those discharges of oil and litter entering the marine environment which originate from **sea-based** activities, thus falling within IMO's mandate.

7.4 The Canadian delegation encouraged IMO to provide information on oil and litter from sea-based sources to assist UNEP in the implementation of the Global Programme of Action. This was endorsed by the Meeting.

7.5 The Secretariat informed the Meeting that such activities would be carried out through existing mechanisms. For instance, the GESAMP Task Team on Oil Discharges into the Marine Environment from Sea-based Activities would meet from 24 to 27 November 1997 at IMO to estimate the input into the sea of oil from shipping and offshore activities including accidents, as well as natural seepages. This Task Team

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In Circular letter LC.2/Circ.371, issued on 28 June 1996, Contracting Parties were informed about these plans. Parties were requested to inform the Secretariat of any known contacts or involvement concerning disposal in the sea-bed or the subsoil thereof of any radioactive waste or other matter which are prohibited for disposal at sea under the London Convention 1972.

was instructed to develop a new approach which would provide more reliable input data than those resulting from previous calculations.

7.6 The delegation of the United States indicated that it would wish to work with other delegations in appropriate fora in support of implementation of the Global Programme of Action. That delegation further indicated that with respect to Agenda 21, some countries had not affirmed, or re-affirmed their commitment to a percentage of GDP target for official development assistance.

7.7 The observer of Greenpeace International noted that the 7th session of the Commission on Sustainable Development (New York, April 1999) would focus on oceans, thus providing an opportunity to highlight the importance of protecting and preserving the oceans by conveying the spirit and provisions of the 1996 Protocol, which commits to a new stage in the protection of the marine environment. Agenda 21, Chapter 17 calls on Governments to take effective action on sea-based activities, and the 1996 Protocol should be presented as a guiding example in this regard.

7.8 Greenpeace International urged the Secretariat to work with regional seas programmes and related bodies to encourage the adoption of similar provisions under those regimes. In addition, Greenpeace requested the Secretariat to commit a significant part of its workplan for 1998 to the preparation of a document promoting the 1996 Protocol, for completion before the end of 1998 in time for submission to the 7th session of CSD.

8 FUTURE WORK PROGRAMME AND DATE OF TWENTIETH CONSULTATIVE MEETING

Future work programme of the Scientific Group and of the Consultative Meeting

8.1 The Consultative Meeting approved the three-year programme for the twenty-first, twenty-second and twenty-third meetings of the Scientific Group as amended. This programme is shown in annex 5 to this report.

8.2 The Meeting agreed on the substantive items to be included in the provisional agenda of the Twentieth Consultative Meeting as shown in annex 6 to this report.

Dates of the Twentieth Consultative Meeting and its subsidiary bodies during the intersessional period

8.3 The Meeting noted that IMO had planned to convene the Twentieth Consultative Meeting in late September/early October 1998. Several delegations expressed their preference to schedule that Meeting at a later date in 1998. Following consultation with the IMO Conference Division, the Twentieth Consultative Meeting is to be convened **from 14 to 18 December 1998**.

8.4 The Meeting acknowledge that preferences to schedule future Consultative Meetings should be indicated in writing to the Secretariat as early as possible to ensure a timely choice in IMO's tentative calendar of Meetings.

8.5 The Consultative Meeting accepted the kind offer of the Government of South Africa, and agreed that the twenty-first meeting of the Scientific Group should be held in Cape Town, South Africa, **from 6 to 9 April 1998**.

Budgetary provisions for activities within the framework of the London Convention 1998-1999

8.6 The Consultative Meeting was informed that the IMO regular budget provided for one meeting week per year with interpretation for 1998 and 1999. Other meetings would have to be held in one of the working languages only.

8.7 The Consultative Meeting requested IMO to ensure that budgetary provisions would also be allocated for advisory services provided by the IMO/FAO/UNESCO-IOC/WMO/WHO/IAEA/UN/UNEP Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) and by the IOC/IMO/UNEP Global Investigation of Pollution in the Marine Environment (GIPME) Programme, as well as for consultancy services related to co-operation with other bodies working in the field of marine pollution prevention from dumping at sea. Provisions should also be made available for work related to the implementation of UNCED's Agenda 21.

9 ANY OTHER BUSINESS

Activities of GESAMP

9.1 The Meeting noted that GESAMP at its twenty-seventh session in early 1997 agreed to prepare its third periodic report on the state of the marine environment by the year 2002. An initial activity will be the preparation of a report on Land-based Sources and Activities Affecting the Quality and Uses of the Marine, Coastal and Associated Freshwater Environment, to be ready in 1999. This report would then form a section of the comprehensive Review of the State of the Marine Environment (SOME), and further contribute to the implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (see also section 7 above).

9.2 The Meeting was also informed that an even more comprehensive, integrated global international waters assessment (GIWA), encompassing the problems of freshwater basins, their associated coastal systems, and the global oceans has recently been approved for funding by the Global Environment Facility (GEF). This would open collaborative possibilities between the GESAMP and GIWA assessments. A joint GESAMP/GIWA task force was being established.

9.3 Another item that has been considered by GESAMP and which had also been a subject of review by the Scientific Group, is the disposal of carbon dioxide into the sea with a view to counteracting the effects of global warming, or avoiding CO₂ emissions into the atmosphere that may result in global warming. A report on scientific and technical issues that are involved, based on a review of most recent studies has been published by GESAMP as an annex to its 27th session report (GESAMP Rep.Stud.No.63).

9.4 GESAMP, under a standing item at its sessions, recently considered matters of particular concern regarding the degradation of the marine environment. Issues raised by members of GESAMP which are related to the work of the Consultative Meeting were as follows:

- .1 the remediation of contaminated marine sediments at sea by capping of these with a layer of clean sediment. Whilst this is probably the most economical option, GESAMP expressed its view that since remediation of contaminated marine sediments was still in its infancy, and taking into account the unique nature of each disposal situation and site, guidance was urgently needed; and
- .2 the impact on coastal seas of recent changes to the London Convention 1972, i.e., the adoption of amendments in 1993 and of the 1996 Protocol. GESAMP expressed its view that these amendments may result in substantial increases in waste disposal through pipelines directly into coastal seas or into rivers that flow to the sea, bringing about significant additional pressure on the coastal zone, and may also result in more pollution on land. GESAMP emphasized that, from a marine environment protection viewpoint, the net benefit of these changes in waste management practices must be viewed and estimated holistically,

recognizing detriments and enhancements to other sectors and other parts of the environment.

9.5 Greenpeace International expressed its concern that GESAMP had reached the above conclusion in regard to recent developments within the framework of the London Convention 1972, particularly as the 1996 Protocol contains a clear commitment to address all sources of marine pollution. The Protocol further applied the precautionary approach, as well as waste minimization and clean production alternatives. These were implicit to land-based management alternatives set out in the Protocol. Greenpeace International supported the suggestion of the Secretariat that it should address the concerns raised by GESAMP in a document to be submitted to the next session of GESAMP.

GIPME

9.6 The Secretariat made an oral presentation in respect of activities under the Global Investigation of Pollution in the Marine Environment (GIPME) Programme, which is jointly sponsored by IOC, IMO and UNEP. In early May 1997 a workshop had been held to consider the development of sediment quality guidelines. The workshop identified a number of principles that should form the basis for a scientific approach to the development of such guidelines. A review of the results of the first workshop is being carried out by a number of experts from outside the Programme. A second GIPME workshop on sediment quality guidelines will be convened in early 1998 and the results presented at the twenty-first meeting of the Scientific Group. The Secretariat expressed its thanks to the Governments of a number of Contracting Parties as well as to organizations which had made their experts available to participate in the workshop.

Potomac Declaration

9.7 The Meeting noted the "Potomac Declaration: Towards Enhanced Ocean Security into the Third Millennium" as adopted by the Conference on "Oceans and Security" held in Washington (United States) from 19 - 21 May 1997 and organized by ACOPS (LC 19/INF.3). It was noted that a follow-up Conference to adopt a plan for implementation of the Potomac Declaration will be convened in Stockholm from 31 January to 2 February 1998.

Announcements of Workshops, Symposia etc.

9.8 The delegation of Australia informed the Meeting that a regional Workshop "Working Together on Preventing Ship-based Pollution in the Asia - Pacific Region" was to be held in Townsville (Australia) from 20 - 23 April 1998 with financial support from the IMO Integrated Technical Co-operation Programme (ITCP). Australia requested that the regional Workshop be listed under the London Convention's Technical Co-operation and Assistance Programme.

9.9 Australia intended to use the Waste Assessment Guidance Training Set (see paragraph 5.23 above) for a session on sea dumping and implementation of the 1996 Protocol at the Townsville Workshop.

9.10 The Secretariat informed the Meeting of the International Symposium on Marine Pollution, organized by the IAEA Marine Environment Laboratory and co-sponsored by IOC/UNEP/IMO, which was to be held from 5 to 9 October 1998 in Monaco. This scientific symposium would provide a forum for evaluating the state of the marine environment, defining the current scientific understanding of the impact of marine pollution and improving risk assessment approaches. Scientific and technical priorities for achieving those objectives would be identified. The symposium would involve leading scientists in the field of marine pollution prevention and representatives from relevant United Nations bodies and other international organizations. Further information on the Symposium could be made available upon request to the Secretariat.

9.11 The delegation of the Netherlands informed the Meeting on preparations for the Expert Meeting on Environmental Practices in Offshore Oil & Gas Activities, organized by the Governments of Brazil and the Netherlands and which would be held from 17 to 20 November 1997 in Noordwijk (Netherlands). The results of the Expert Meeting would be presented to the next meeting of Scientific Group and to the Twentieth Consultative Meeting.

10 CONSIDERATION AND ADOPTION OF THE REPORT

The report of the Nineteenth Consultative Meeting of Contracting Parties to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention 1972) including annexes to the report, was adopted on the final day of the Meeting (31 October 1997).

ANNEX 1

AGENDA FOR THE NINETEENTH CONSULTATIVE MEETING

1 **Adoption of the Agenda**

LC 19/1 - Provisional Agenda

LC 19/1/1 - Annotations to the Provisional Agenda and Draft Timetable

2 **Status of the London Convention 1972 and of the 1996 Protocol thereto**

LC 19/2 - Report of the Secretary-General on the Status of the London Convention 1972

LC 19/2/1 - Secretariat: Signatories to the 1996 Protocol to the London Convention 1972

LC 19/2/2 - Secretariat: Status of compliance with the notification and reporting requirements under Article VI(4) of the London Convention 1972

3 **Administrative arrangements in view of the 1996 Protocol**

LC 19/3 - Secretariat: Rules of Procedure for the Consultative and Special Meetings of the Contracting Parties to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972

LC 19/3/1 - Secretariat: Issues for consideration by the Consultative Meeting

LC 19/INF.2 - Secretariat: Addressing the implementation of the 1996 Protocol to the London Convention 1972 within the framework of national integrated coastal management programmes

4 **Scientific Group: Consideration of reports of the nineteenth and twentieth meetings**

LC 19/4 - Secretariat: Action by the Consultative Meeting

LC 19/WP.1 - Secretariat: Draft report on permits issued in 1995

LC 19/WP.3 - United States: Draft resolution on Guidelines for the Assessment of Wastes or Other Matter that may be Considered for Dumping under the 1996 Protocol

LC 19/WP.4 - Germany: Text to adopt Guidance

LC 19/WP.7 - Working Group: Proposed Revisions to the draft Guidelines for the Assessment of Wastes or Other Matter that may be Considered for Dumping

5 Technical Co-operation and Assistance Programme under the London Convention 1972

- LC 19/5 - Secretariat: Draft Technical Co-operation and Assistance Programme under the London Convention 1972
- LC 19/INF.5 - Secretariat: Status report on the development of the Waste Assessment Guidance Training Set
- LC 19/WP.2 - Secretariat: Status report of current Technical Co-operation and Assistance Projects under the London Convention 1972
- LC 19/WP.6 - Report of the Technical Co-operation Working Group

6 Matters related to the disposal at sea of radioactive wastes

- LC 19/6 - Secretariat: Co-ordinated Research and Environmental Surveillance Programme Related to Sea Disposal of Radioactive Waste: OECD/NEA CRESF Final Report (1981 - 1995)
- LC 19/6/1 - Secretariat: Assessment of the Impact of Radioactive Waste Dumping in the Arctic Seas: International Arctic Seas Assessment Project (IASAP) of the IAEA
- LC 19/6/2 - IAEA: The concept of *de minimis* for radioactive substances under the London Convention 1972
- LC 19/INF.4 - Norway and the Russian Federation: Report on Joint Norwegian-Russian Investigations (1992-1994) of Radioactive Contamination in the Kara Sea
- LC 19/INF.6 - Norway, the Russian Federation and the United States: The Murmansk Initiative: Trilateral Norway-Russian Federation-United States Co-operation on Low-Level Liquid Radioactive Waste Processing Summary as of 24 October 1997

7 Decisions by the Commission on Sustainable Development (CSD) relevant to the London Convention 1972

- LC 19/7 - Secretariat: Decisions by the Commission on Sustainable Development (CSD) relevant to the London Convention 1972

8 Future work programme and date of Twentieth Consultative Meeting

No documents submitted under this item

9 Any other business

- LC 19/INF.3 - ACOPS: The Potomac Declaration

10 **Consideration and adoption of the report**

LC 19/10 - Report

LC 19/INF.1 - List of Participants

LC 19/WP.8 - Secretariat: Draft Report of the Nineteenth Consultative Meeting

LC 19/WP.8/Add.1 Secretariat: Draft Report of the Nineteenth Consultative Meeting

ANNEX 2

GUIDELINES FOR THE ASSESSMENT OF WASTES OR OTHER MATTER THAT MAY BE CONSIDERED FOR DUMPING

INTRODUCTION

1 The Guidelines for the Assessment of Wastes or Other Matter that May be Considered for Dumping are intended for use by national authorities responsible for regulating dumping of wastes and embody a mechanism to guide national authorities in evaluating applications for dumping of wastes in a manner consistent with the provisions of the London Convention 1972 or the 1996 Protocol thereto. Annex 2 to the 1996 Protocol places emphasis on progressively reducing the need to use the sea for dumping of wastes. Furthermore, it recognizes that avoidance of pollution demands rigorous controls on the emission and dispersion of contaminating substances and the use of scientifically-based procedures for selecting appropriate options for waste disposal. When applying these Guidelines uncertainties in relation to assessments of impacts on the marine environment will need to be considered and a precautionary approach applied in addressing these uncertainties. They should be applied with a view that acceptance of dumping under certain circumstances does not remove the obligation to make further attempts to reduce the necessity for dumping.

2 The 1996 Protocol to the London Convention 1972 follows an approach under which dumping of wastes or other matter is prohibited except for those materials specifically enumerated in Annex I, and in the context of that Protocol, these Guidelines would apply to the materials listed in that Annex. The London Convention 1972 prohibits the dumping of certain wastes or other matter specified therein and in the context of that Convention these Guidelines meet the requirements of its Annexes for wastes not prohibited for dumping at sea. When applying these Guidelines under the London Convention 1972, they should not be viewed as a tool for the reconsideration of dumping of wastes or other matter in contravention of Annex I to the London Convention 1972.

3 The schematic shown in Figure 1 provides a clear indication of the stages in the application of the Guidelines where important decisions should be made and is not designed as a conventional "decision tree". In general, national authorities should use the schematic in an iterative manner ensuring that all steps receive consideration before a decision is made to issue a permit. Figure 1 illustrates the relationship between the operational components of Annex 2 of the 1996 Protocol and contains the following elements:

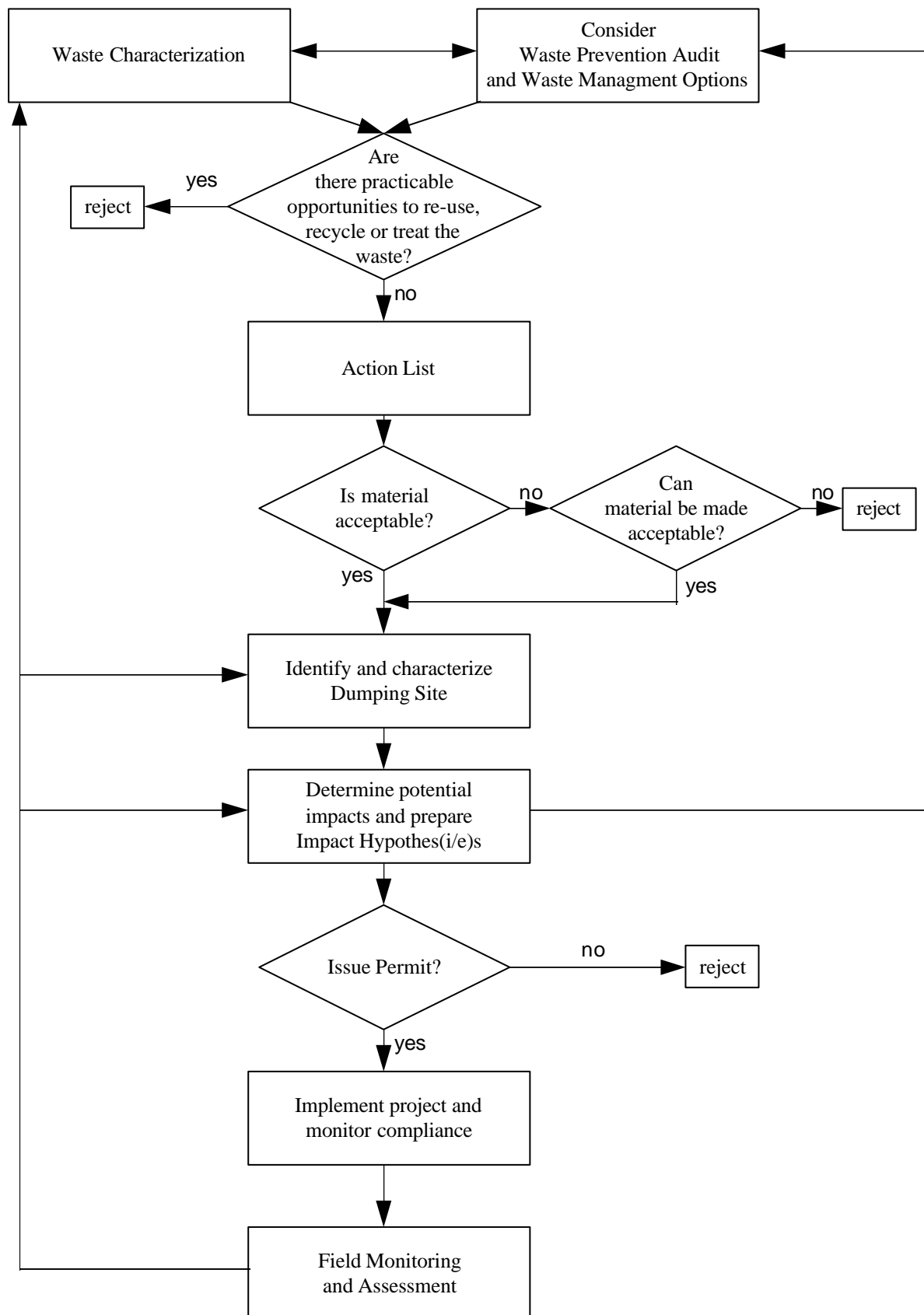
- | | | |
|--------------|--|--------------------|
| .1
10-11) | Waste Characterization

(Chemical, Physical and Biological Properties) | (paragraphs |
| .2 | Waste Prevention Audit and Waste Management Options | (paragraphs 5-9) |
| .3
12-15) | Action List | (paragraphs |
| .4
16-28) | Identify and Characterize Dump-site

(Dump-site Selection) | (paragraphs |
| .5 | Determine Potential Impacts and Prepare Impact Hypothesis(es) | (paragraphs 29-39) |

(Assessment of Potential Effects)

46-49)	.6	Issue Permit (Permit and Permit Conditions)	(paragraphs
40-45)	.7	Implement Project and Monitor Compliance (Monitoring)	(paragraphs
40-45)	.8	Field Monitoring and Assessment (Monitoring)	(paragraphs



4 These generic Guidelines are complemented by specific dredged material guidance (Dredged Material Assessment Framework, Resolution LC.52 (18)) and by further specific guidance developed for each waste category listed in Annex 1 to the 1996 Protocol to the London Convention 1972.

WASTE PREVENTION AUDIT

5 The initial stages in assessing alternatives to dumping should, as appropriate, include an evaluation of:

- .1 types, amounts and relative hazards of wastes generated;
- .2 details of the production process and the sources of wastes within that process; and
- .3 feasibility of the following waste reduction/prevention techniques:
 - .3.1 product reformulation;
 - .3.2 clean production technologies;
 - .3.3 process modification;
 - .3.4 input substitution; and
 - .3.5 on-site, closed-loop recycling.

6 In general terms, if the required audit reveals that opportunities exist for waste prevention at source, an applicant is expected to formulate and implement a waste prevention strategy in collaboration with relevant local and national agencies which includes specific waste reduction targets and provision for further waste prevention audits to ensure that these targets are being met. Permit issuance or renewal decisions shall assure compliance with any resulting waste reduction and prevention requirements.

7 For dredged material and sewage sludge, the goal of waste management should be to identify and control the sources of contamination. This should be achieved through implementation of waste prevention strategies and requires collaboration between the local and national agencies involved with the control of point and non-point sources of pollution. Until this objective is met, the problems of contaminated dredged material may be addressed by using disposal management techniques at sea or on land.

CONSIDERATION OF WASTE MANAGEMENT OPTIONS

8 Applications to dump wastes or other matter shall demonstrate that appropriate consideration has been given to the following hierarchy of waste management options, which implies an order of increasing environmental impact:

- .1 re-use;
- .2 off-site recycling;
- .3 destruction of hazardous constituents;
- .4 treatment to reduce or remove the hazardous constituents; and
- .5 disposal on land, into air and into water.

9 A permit to dump wastes or other matter shall be refused if the permitting authority determines that appropriate opportunities exist to re-use, recycle or treat the waste without undue risks to human health or the environment or disproportionate costs. The practical availability of other means of disposal should be considered in the light of a comparative risk assessment involving both dumping and the alternatives.

CHEMICAL, PHYSICAL AND BIOLOGICAL PROPERTIES

10 A detailed description and characterization of the waste is an essential precondition for the consideration of alternatives and the basis for a decision as to whether a waste may be dumped. If a waste is so poorly characterised that proper assessment cannot be made of its potential impacts on human health and the environment, that waste shall not be dumped.

11 Characterization of the wastes and their constituents shall take into account:

- .1 origin, total amount, form and average composition;
- .2 properties: physical, chemical, biochemical and biological;
- .3 toxicity;
- .4 persistence: physical, chemical and biological; and
- .5 accumulation and biotransformation in biological materials or sediments.

ACTION LIST

12 The Action List provides a screening mechanism for determining whether a material is considered acceptable for dumping. It constitutes a crucial part of Annex 2 to the 1996 Protocol and the Scientific Group will continuously review all aspects of it to assist Contracting Parties with its application. It may also be used in meeting the requirements of Annexes I and II to the London Convention 1972

13 Each Contracting Party shall develop a national Action List to provide a mechanism for screening candidate wastes and their constituents on the basis of their potential effects on human health and the marine environment. In selecting substances for consideration in an Action List, priority shall be given to toxic, persistent and bio-accumulative substances from anthropogenic sources (e.g., cadmium, mercury, organohalogens, petroleum hydrocarbons and, whenever relevant, arsenic, lead, copper, zinc, beryllium, chromium, nickel and vanadium, organosilicon compounds, cyanides, fluorides and pesticides or their by-products other than organohalogens). An Action List can also be used as a trigger mechanism for further waste prevention considerations.

14 For an individual waste category, it may be possible to define national action levels on the basis of concentration limits, biological responses, environmental quality standards, flux considerations or other reference values.

15 An Action List shall specify an upper level and may also specify a lower level. The upper level should be set so as to avoid acute or chronic effects on human health or on sensitive marine organisms representative of the marine ecosystem. Application of an Action List will result in three possible categories of waste:

- .1 wastes which contain specified substances, or which cause biological responses, *exceeding* the relevant upper level shall not be dumped, unless made acceptable for dumping through the use of management techniques or processes;

- .2 wastes which contain specified substances, or which cause biological responses, *below* the relevant lower levels should be considered to be of little environmental concern in relation to dumping; and
- .3 wastes which contain specified substances, or which cause biological responses, *below* the upper level but *above* the lower level require more detailed assessment before their suitability for dumping can be determined.

DUMP-SITE SELECTION

Site selection considerations

- 16 Proper selection of a dump-site at sea for the reception of waste is of paramount importance.
- 17 Information required to select a dump-site shall include:
- .1 physical, chemical and biological characteristics of the water-column and the sea-bed;
 - .2 location of amenities, values and other uses of the sea in the area under consideration;
 - .3 assessment of the constituent fluxes associated with dumping in relation to existing fluxes of substances in the marine environment; and
 - .4 economic and operational feasibility.
- 18 Guidance for procedures to be followed in dump-site selection can be found in a report of the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP Reports and Studies No. 16 - Scientific Criteria for the Selection of Waste Disposal Sites at Sea). Prior to selecting a dump-site, it is essential that data be available on the oceanographic characteristics of the general area in which the site is to be located. This information can be obtained from the literature but field work should be undertaken to fill the gaps. Required information includes:
- .1 the nature of the seabed, including its topography, geochemical and geological characteristics, its biological composition and activity, and prior dumping activities affecting the area;
 - .2 the physical nature of the water column, including temperature, depth, possible existence of a thermocline/pycnocline and how it varies in depth with season and weather conditions, tidal period and orientation of the tidal ellipse, mean direction and velocity of the surface and bottom drifts, velocities of storm-wave induced bottom currents, general wind and wave characteristics, and the average number of storm days per year, suspended matter; and
 - .3 the chemical and biological nature of the water column, including pH, salinity, dissolved oxygen at surface and bottom, chemical and biochemical oxygen demand, nutrients and their various forms and primary productivity.

19 Some of the important amenities, biological features and uses of the sea to be considered in determining the specific location of the dump-site are:

- .1 the shoreline and bathing beaches;
- .2 areas of beauty or significant cultural or historical importance;
- .3 areas of special scientific or biological importance, such as sanctuaries;
- .4 fishing areas;
- .5 spawning, nursery and recruitment areas;
- .6 migration routes;
- .7 seasonal and critical habitats;
- .8 shipping lanes;
- .9 military exclusion zones; and
- .10 engineering uses of the seafloor, including mining, undersea cables, desalination or energy conversion sites.

Size of the dump-site

20 Size of the dump-site is an important consideration for the following reasons:

- .1 it should be large enough, unless it is an approved dispersion site, to have the bulk of the material remain either within the site limits or within a predicted area of impact after dumping;
- .2 it should be large enough to accommodate anticipated volumes of solid waste and/or liquid wastes to be diluted to near background levels before or upon reaching site boundaries;
- .3 it should be large enough in relation to anticipated volumes for dumping so that it would serve its function for many years; and
- .4 it should not be so large that monitoring would require undue expenditure of time and money.

Site capacity

21 In order to assess the capacity of a site, especially for solid wastes, the following should be taken into consideration:

- .1 the anticipated loading rates per day, week, month or year;
- .2 whether or not it is a dispersive site; and
- .3 the allowable reduction in water depth over the site because of mounding of material.

Evaluation of potential impacts

22 An important consideration in determining the suitability of a waste for dumping at a specific site is the degree to which this results in increased exposures of organisms to substances that may cause adverse effects.

23 The extent of adverse effects of a substance is a function of the exposures of organisms (including humans). Exposure, in turn, is a function, *inter alia*, of input flux and the physical, chemical and biological processes that control the transport, behaviour, fate and distribution of a substance.

24 The presence of natural substances and the ubiquitous occurrence of contaminants means that there will always be some pre-existing exposures of organisms to all substances contained in any waste that might be dumped. Concerns about exposures to hazardous substances thus relate to additional exposures as a consequence of dumping. This, in turn, can be translated back to the relative magnitude of the input fluxes of substances from dumping compared with existing input fluxes from other sources.

25 Accordingly, due consideration needs to be given to the relative magnitude of the substance fluxes associated with dumping in the local and regional area surrounding the dump-site. In cases where it is predicted that dumping will substantially augment existing fluxes associated with natural processes, dumping at the site under consideration should be deemed inadvisable.

26 In the case of synthetic substances, the relationship between fluxes associated with dumping and pre-existing fluxes in the vicinity of the site may not provide a suitable basis for decisions.

27 Temporal characteristics should be considered to identify potentially critical times of the year (e.g., for marine life) when dumping should not take place. This consideration leaves periods when it is expected that dumping operations will have less impact than at other times. If these restrictions become too burdensome and costly, there should be some opportunity for compromise in which priorities may have to be established concerning species to be left wholly undisturbed. Examples of such biological considerations are:

- .1 periods when marine organisms are migrating from one part of the ecosystem to another (e.g., from an estuary to open sea or vice versa) and growing and breeding periods;
- .2 periods when marine organisms are hibernating on or are buried in the sediments; and
- .3 periods when particularly sensitive and possibly endangered species are exposed.

Contaminant mobility

28 Contaminant mobility is dependent upon several factors, among which are:

- .1 type of matrix;
- .2 form of contaminant;
- .3 contaminant partitioning;
- .4 physical state of the system, e.g., temperature, waterflow, suspended matter;
- .5 physio-chemical state of the system;
- .6 length of diffusion and advection pathways; and

- .7 biological activities e.g., bioturbation.

ASSESSMENT OF POTENTIAL EFFECTS

29 Assessment of potential effects should lead to a concise statement of the expected consequences of the sea or land disposal options, i.e., the "Impact Hypothesis". It provides a basis for deciding whether to approve or reject the proposed disposal option and for defining environmental monitoring requirements. As far as possible, waste management options causing dispersion and dilution of contaminants in the environment should be avoided and preference given to techniques that prevent the input of the contaminants to the environment.

30 The assessment for dumping should integrate information on waste characteristics, conditions at the proposed dump-site(s), fluxes and proposed disposal techniques and specify the potential effects on human health, living resources, amenities and other legitimate uses of the sea. It should define the nature, temporal and spatial scales and duration of expected impacts based on reasonably conservative assumptions.

31 The assessment should be as comprehensive as possible. The primary potential impacts should be identified during the dump-site selection process. These are considered to pose the most serious threats to human health and the environment. Alterations to the physical environment, risks to human health, devaluation of marine resources and interference with other legitimate uses of the sea are often seen as primary concerns in this regard.

32 In constructing an impact hypothesis, particular attention should be given to, but not limited to, potential impacts on amenities (e.g., presence of floatables), sensitive areas (e.g., spawning, nursery or feeding areas), habitat (e.g., biological, chemical and physical modification), migratory patterns and marketability of resources. Consideration should also be given to potential impacts on other uses of the sea including: fishing, navigation, engineering uses, areas of special concern and value, and traditional uses of the sea.

33 Even the least complex and most innocuous wastes may have a variety of physical, chemical and biological effects. Impact hypotheses cannot attempt to reflect them all. It must be recognized that even the most comprehensive impact hypotheses may not address all possible scenarios such as unanticipated impacts. It is therefore imperative that the monitoring programme be linked directly to the hypotheses and serve as a feedback mechanism to verify the predictions and review the adequacy of management measures applied to the dumping operation and at the dump-site. It is important to identify the sources and consequences of uncertainty.

34 The expected consequences of dumping should be described in terms of affected habitats, processes, species, communities and uses. The precise nature of the predicted effect (e.g., change, response, or interference) should be described. The effect should be quantified in sufficient detail so that there would be no doubt as to the variables to be measured during field monitoring. In the latter context, it would be essential to determine "where" and "when" the impacts can be expected.

35 Emphasis should be placed on biological effects and habitat modification as well as physical and chemical change. However, if the potential effect is due to substances, the following factors should be addressed:

- .1 estimates of statistically significant increases of the substance in seawater, sediments, or biota in relation to existing conditions and associated effects; and

- .2 estimate of the contribution made by the substance to local and regional fluxes and the degree to which existing fluxes pose threats or adverse effects on the marine environment or human health.

36 In the case of repeated or multiple dumping operations, impact hypotheses should take into account the cumulative effects of such operations. It will also be important to consider the possible interactions with other waste dumping practices in the area, both existing or planned.

37 An analysis of each disposal option should be considered in light of a comparative assessment of the following concerns: human health risks, environmental costs, hazards (including accidents), economics and exclusion of future uses. If this assessment reveals that adequate information is not available to determine the likely effects of the proposed disposal option, including potential long-term harmful consequences, then this option should not be considered further. In addition, if the interpretation of the comparative assessment shows the dumping option to be less preferable, a permit for dumping should not be given.

38 Each assessment should conclude with a statement supporting a decision to issue or refuse a permit for dumping.

39 Where monitoring is required, the effects and parameters described in the hypotheses should help to guide field and analytical work so that relevant information can be obtained in the most efficient and cost-effective manner.

MONITORING

40 Monitoring is used to verify that permit conditions are met - compliance monitoring - and that the assumptions made during the permit review and site selection process were correct and sufficient to protect the environment and human health - field monitoring. It is essential that such monitoring programmes have clearly defined objectives.

41 The Impact Hypothesis forms the basis for defining field monitoring. The measurement programme should be designed to ascertain that changes in the receiving environment are within those predicted. The following questions must be answered:

- .1 What testable hypotheses can be derived from the Impact Hypothesis?
- .2 What measurements (type, location, frequency, performance requirements) are required to test these hypotheses?
- .3 How should the data be managed and interpreted?

42 It may usually be assumed that suitable specifications of existing (pre-disposal) conditions in the receiving area are already contained in the application for dumping. If the specification of such conditions is inadequate to permit the formulation of an Impact Hypothesis, additional information will be required by the licensing authority before any final decision on the permit application is made.

43 The permitting authority is encouraged to take account of relevant research information in the design and modification of monitoring programmes. The measurements can be divided into two types - those within the zone of predicted impact and those outside.

44 Measurements should be designed to determine whether the zone of impact and the extent of change outside the zone of impact differ from those predicted. The former can be answered by designing a sequence of measurements in space and time that ensures that the projected spatial scale of change is not exceeded. The latter can be answered by the acquisition of measurements that provide information on the extent of change that occurs outside the zone of impact as a result of the dumping operation. Frequently, these measurements will be based on a null hypothesis - that no significant change can be detected.

45 The results of monitoring (or other related research) should be reviewed at regular intervals in relation to the objectives and can provide a basis to :

- .1 modify or terminate the field monitoring programme;
- .2 modify or revoke the permit;
- .3 redefine or close the dump-site; and
- .4 modify the basis on which applications to dump wastes are assessed.

PERMIT AND PERMIT CONDITIONS

46 A decision to issue a permit should only be made if all impact evaluations are completed and the monitoring requirements are determined. The provisions of the permit shall ensure, as far as practicable, that environmental disturbance and detriment are minimized and the benefits maximized. Any permit issued shall contain data and information specifying:

- .1 the types, amounts and sources of materials to be dumped;
- .2 the location of the dump-site(s);
- .3 the method of dumping; and
- .4 monitoring and reporting requirements.

47 If dumping is the selected option, then a permit authorizing dumping must be issued in advance. It is recommended that opportunities are provided for public review and participation in the permitting process. In granting a permit, the hypothesized impact occurring within the boundaries of the dump-site, such as alterations to the physical, chemical and biological compartments of the local environment is accepted by the permitting authority.

48 Regulators should strive at all times to enforce procedures that will result in environmental changes as far below the limits of allowable environmental change as practicable, taking into account technological capabilities as well as economic, social and political concerns.

49 Permits should be reviewed at regular intervals, taking into account the results of monitoring and the objectives of monitoring programmes. Review of monitoring results will indicate whether field programmes need to be continued, revised or terminated, and will contribute to informed decisions regarding the continuance, modification or revocation of permits. This provides an important feedback mechanism for the protection of human health and the marine environment.

ANNEX 3

FORMAT FOR THE WASTE-SPECIFIC GUIDELINES
IN RELATION TO THE GENERIC GUIDELINES

<table border="1"> <tr> <td>EXAMPLE</td> </tr> </table>	EXAMPLE
EXAMPLE	

Draft specific guidance² for “*Bulky items primarily comprising iron, steel, concrete and similarly unharmful materials for which the concern is physical impact, and limited to those circumstances where such wastes are generated at locations, such as small islands with isolated communities, having no practical access to disposal options other than dumping.*”

The following text provides specific guidance regarding the application of the provisions of the generic “Guidelines for the Assessment of Wastes or Other Matter that May be Considered for Dumping” for “*Bulky items primarily comprising iron, steel, concrete and similarly unharmful materials etc.*”. The left-hand column of the text below is taken from the generic “Guidelines for the Assessment of Wastes or other Matter that May be Considered for Dumping”. The right-hand column contains commentary indicating, first, additional advice and, second, instances in which the provisions of the guidance are not relevant to this specific category of waste or other matter. In the absence of commentary, the provisions of the guidance set out in the left - hand column are in themselves adequate and necessary for the consideration of these wastes or other matter. Adherence to the following represents neither a more restrictive nor a less restrictive regime than that of the generic Guidelines.

2

Waste specific guidance is still being developed.

**GUIDELINES FOR THE ASSESSMENT OF WASTES
OR OTHER MATTER
THAT MAY BE CONSIDERED FOR DUMPING**

DRAFT COMMENTARY

INTRODUCTION

1. The Guidelines for the Assessment of Wastes or Other Matter that May be Considered for Dumping are intended for use by national authorities responsible for regulating dumping of wastes and embody a mechanism to guide national authorities in evaluating applications for dumping of wastes in a manner consistent with the provisions of the London Convention 1972 or the 1996 Protocol thereto.

Annex 2 to the 1996 Protocol places emphasis on progressively reducing the need to use the sea for dumping of wastes. Furthermore, it recognizes that avoidance of pollution demands rigorous controls on the emission and dispersion of contaminating substances and the use of scientifically-based procedures for selecting appropriate options for waste disposal. When applying these Guidelines uncertainties in relation to assessments of impacts on the marine environment will need to be considered and a precautionary approach applied in addressing these uncertainties. They should be applied with a view that acceptance of dumping under certain circumstances does not remove the obligation to make further attempts to reduce the necessity for dumping.

2. The 1996 Protocol to the London Convention 1972 follows an approach under which dumping of wastes or other matter is prohibited except for those materials specifically enumerated in Annex I, and in the context of that Protocol, these Guidelines would apply to the materials listed in that Annex. The London Convention 1972 prohibits the dumping of certain wastes and other matter specified therein and in the context of that Convention these Guidelines meet the requirements of its Annexes for wastes not prohibited for dumping at sea. When applying these Guidelines under the London Convention 1972, they should not be viewed as a tool for the reconsideration of dumping of wastes or other matter in contravention of Annex I to the London Convention 1972.

3. The schematic shown in Figure 1 [will be attached at end of dual text] provides a clear indication of the stages in the application of the Guidelines where important decisions should be made and is not designed as a conventional "decision tree". In general, national authorities should use the schematic in an iterative manner ensuring that all steps receive consideration before a decision is made to issue a permit. Figure 1 illustrates the relationship between the operational components of Annex 2 of the 1996 Protocol and contains the following elements:

.1 Waste Characterization (paragraphs 10-11)
(Chemical, Physical and Biological Properties)

.2 Waste Prevention Audit and Waste

Management

Options (paragraphs 5-9)

.3 Action List (paragraphs 12-15)

.4 Identify and Characterize Dump-site
(paragraphs 16-28)
(Dump-site Selection)

.5 Determine Potential Impacts and Prepare
Impact

Hypothesis(es) (paragraphs 29-39)
Assessment of Potential Effects)

.6 Issue Permit (paragraphs 46-49)
(Permit and Permit Conditions)

.7 Implement Project and Monitor Compliance
(paragraphs 40-45)
(Monitoring)

.8 Field Monitoring and Assessment
(paragraphs 40-45)
(Monitoring)

4. These generic Guidelines are complemented by specific dredged material guidance (Dredged Material Assessment Framework, Resolution LC.52 (18)) and by further specific guidance developed for each waste category listed in Annex 1 to the 1996 Protocol to the London Convention 1972.

WASTE PREVENTION AUDIT

5. The initial stages in assessing

For bulky wastes etc., a number of elements of the waste prevention audit will not be relevant. These are as indicated below:

Production processes referred to in paragraph 5.2 are not relevant.

None of the sub-items of paragraph 5.3 is relevant.

alternatives to dumping should, as appropriate, include an evaluation of:

.1 types, amounts and relative hazards of wastes

generated;

.2 details of the production process and the sources

of wastes within that process; and

.3 feasibility of the following waste reduction/prevention techniques

.3.1 product reformulation;

.3.2 clean production technologies;

.3.3 process modification;

.3.4 input substitution; and

.3.5 on-site, closed-loop recycling.

Paragraph 7 is not relevant.

6. In general terms, if the required audit reveals that opportunities exist for waste prevention at source, an applicant is expected to formulate and implement a waste prevention strategy in collaboration with relevant local and national agencies which includes specific waste reduction targets and provision for further waste prevention audits to ensure that these targets are being met. Permit issuance or renewal decisions shall assure compliance with any resulting waste reduction and prevention requirements.

7. For dredged material and sewage sludge, the

goal of waste management should be to identify and control the sources of contamination. This should be achieved through implementation of waste prevention strategies and requires collaboration between the local and national agencies involved with the control of point and non-point sources of pollution. Until this objective is met, the problems of contaminated dredged material may be addressed by using disposal management techniques at sea or on land.

CONSIDERATION OF WASTE MANAGEMENT OPTIONS

8. Applications to dump wastes or other matter shall demonstrate that appropriate consideration has been given to the following hierarchy of waste management options, which implies an order of increasing environmental impact:

- .1 re-use;
- .2 off-site recycling;
- .3 destruction of hazardous constituents;
- .4 treatment to reduce or remove the hazardous constituents; and

Re-use includes return to supplier, disassembly and use of some, or all, components.

Paragraph 8.3 is not relevant.

Under paragraph 8.4, cleaning and preparation should include: removal of contaminants including lubricants, floatable materials, and soluble matter; and cleaning of all surfaces and verification of cleanliness.

Consideration should also be given to reduction of bulk.

Under paragraph 8.5, disposal into air is not relevant.

.5 disposal on land, into air and into water.

9. A permit to dump wastes or other matter shall be refused if the permitting authority determines that appropriate opportunities exist to re-use, recycle or treat the waste without undue risks to human health or the environment or disproportionate costs. The practical availability of other means of disposal should be considered in the light of a comparative risk assessment involving both dumping and the alternatives.

Materials to be considered under this category will be bulky items primarily comprising iron, steel, concrete and similar materials for which the concern is physical impact. The specific gravity of such materials should exceed 1.2 when allowance for the ingress of water into internal and void spaces has been made to ensure that the material reaches the sea floor relatively rapidly.

CHEMICAL, PHYSICAL AND BIOLOGICAL PROPERTIES

10. A detailed description and characterization of the waste is an essential precondition for the consideration of alternatives and the basis for a decision as to whether a waste may be dumped. If a waste is so poorly characterised that proper assessment cannot be made of its potential impacts on human health and the environment, that waste shall not be dumped.

The Action List is not relevant to this category of wastes.

11. Characterization of the wastes and their constituents shall take into account:

.1 origin, total amount, form and average composition;

.2 properties: physical, chemical, biochemical and biological;

.3 toxicity;

.4 persistence: physical, chemical and biological; and

.5 accumulation and biotransformation in biological materials or sediments.

ACTION LIST

12. The Action List provides a screening mechanism for determining whether a material is considered acceptable for dumping. It constitutes a crucial part of Annex 2 to the 1996 Protocol and the Scientific Group will continuously review all aspects of it to assist Contracting Parties with its application. It may also be used in meeting the requirements of Annexes I and II to the London Convention 1972.

ANNEX 4

TECHNICAL CO-OPERATION AND ASSISTANCE PROGRAMME UNDER THE LONDON CONVENTION 1972

1 INTRODUCTION AND RATIONALE

1.1 Currently, technical co-operation and assistance under the London Convention 1972 (the Convention) is carried out on an *ad-hoc* basis and mostly as part of the IMO Integrated Technical Co-operation Programme (ITCP). The ITCP covers a broad range of activities for maritime safety, protection of the marine environment, legislation and facilitation. Implementation of the Convention is only one activity covered by the ITCP.

1.2 Contracting Parties are committed to provide technical co-operation and assistance to implement the objectives of the Convention under Article IX of the Convention. When developing this Technical Co-operation and Assistance Programme, Contracting Parties reconfirmed their commitment by adopting resolutions LC.54(18) and LC.55(SM) on Technical Co-operation and Assistance Activities Related to the London Convention 1972. With the adoption of the 1996 Protocol to the London Convention 1972 (the Protocol) the commitments to provide technical co-operation are substantially extended as set out in its article 13. In addition, States that have indicated their intention to become Contracting Parties to the Protocol or have ratified or acceded thereto and which invoke the "transitional period" arrangements set out in article 26, may apply also for technical assistance to achieve full compliance with the Protocol.

1.3 This Programme is also established in response to the findings of the Global Waste Survey which was initiated in 1991 based on resolution LDC.43(13) for the purpose of addressing the potential implications of the prohibition of sea disposal of industrial waste on countries world-wide, especially in developing countries. The Global Waste Survey Final Report revealed that the challenge for developing and newly industrialized countries in complying with that prohibition is "to apply land-based solutions that are practical, affordable and environmentally sound, as defined by local and sub-regional circumstances". In turn, the challenge for Contracting Parties, through technical co-operation and assistance, is "to work with developing countries in the evolutionary process, to develop, demonstrate and apply appropriate national and sub-regional strategies and options for avoiding sea disposal of industrial waste, on a sustainable and self-reliant basis."

2 OBJECTIVES OF THE TECHNICAL CO-OPERATION AND ASSISTANCE PROGRAMME

2.1 The overall objective of the Programme is to provide support to those States in need of assistance to take effective measures to prevent, reduce and, where practicable, eliminate pollution of the sea caused by dumping of wastes or other matter in accordance with the objectives of the Convention or the Protocol.

2.2 The specific objectives of the Programme are to:

- .1 promote ratification of the 1996 Protocol, or accession to the London Convention 1972, as appropriate;
- .2 strengthen national marine pollution prevention and management capacities to achieve compliance with the Convention or, after its entry into force, the Protocol; and

- .3 co-operate with other organizations and agencies to ensure a co-ordinated approach to technical co-operation and assistance, avoiding duplication of effort.

2.3 A programmatic approach to technical co-operation and assistance will enable providers and recipients of such assistance to assess the results of individual projects and activities in the light of these objectives.

3 PROGRAMME ELEMENTS: THE OUTPUT OF THE PROGRAMME

3.1 The Programme will result in the development and implementation of individual projects and activities which will be based on country requests and identified needs. These projects and activities will address the needs in developing regions as identified in the Global Waste Survey Final Report, including:

- .1 development and implementation of national legislation and regulations;
- .2 implementation and application of national waste generation inventories and waste classification systems;
- .3 development of management alternatives to sea disposal where required;
- .4 management of sea disposal operations;
- .5 marine pollution monitoring and research;
- .6 public awareness and public education;
- .7 sustainable financing programme development; and
- .8 provision of advice.

4 THE DELIVERY OF TECHNICAL CO-OPERATION AND ASSISTANCE UNDER THE PROGRAMME

4.1 The delivery of technical co-operation and assistance will vary as required and will consist of one, or a combination of, the following activities:

- .1 project management involving the development, execution, tracking and evaluation of individual projects as well as a periodic evaluation of their effectiveness.

Projects may be developed following a request for assistance from a country, or as a result of information gathering and knowledge base development activities. Joint or complementary projects of a broad focus (e.g., integrated waste management in ports and harbours) can also be developed and implemented as part of IMO's ITCP and in conjunction with donor agencies, regional and international financial institutions and development agencies, and industry.

- .2 networking and provision of information relevant to the Convention or the Protocol. This will include:
 - .1 co-operation with relevant international organizations, including industry and non-governmental organizations;
 - .2 clearing-house functions regarding relevant scientific and technical information (as specified under point 4.1.4 below);

- .3 gathering and developing information based on country needs; and
 - .4 dissemination of information to promote technical co-operation activities on a national and regional basis.
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- .3 advisory/consultation service, including the provision of legal, technical, scientific and administrative support to Contracting Parties and States wishing to ratify and implement the provisions of the Convention or the Protocol, and in accordance with other related international conventions and protocols.
 - .4 clearinghouse functions, including collation and dissemination of relevant information of scientific and technical nature, for use by Contracting Parties, IMO, other international agencies and organizations, industry, academia, NGOs and the public in general.

The nature of information to be collected and disseminated through the clearinghouse will include, *inter alia*:

- .1 bibliographies on issues related to the Convention or the Protocol;
 - .2 technical materials and reports;
 - .3 schedules of meetings, seminars and training opportunities;
 - .4 roster of experts on selected subjects;
 - .5 national, sub-regional and regional organizations and institutions providing scientific/technical services in waste management and marine pollution research and monitoring; and
 - .6 linkages to other national, regional and international clearinghouses and information bases, including research institutions, industry and NGOs.
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- .5 seminars, training and workshops for national, regional and multi-sectoral audiences on the ratification and implementation of the Convention or the Protocol, including the objectives and activities of the Convention or the Protocol in relation to other international conventions on (marine) pollution prevention and management.

Seminars and workshops will be organized as part of IMO's ITCP and in conjunction with regional and national agencies and programmes;

Training programmes will be conducted jointly or in a complementary fashion with national and international agencies and organizations. Topics of training programmes will be based on identified needs.

5 FUNDING OPTIONS

5.1 The funding for individual projects and activities under this Programme may be provided by:

- .1 Contracting Parties on a voluntary basis;
- .2 internationally established funding mechanisms (f. i. the World Bank, Regional Development Banks and Global Environmental Facility (GEF), accessed directly, or through the IMO's Integrated Technical Cooperation Programme; and
- .3 other sources, for instance, but not limited to:
 - private industries or associations;
 - local or regional authorities;
 - NGOs; and
 - recipient countries.

5.2 Support for the management of individual projects may be covered by inclusion of a project management fee, where appropriate and as acceptable to donors, or by voluntary financial, or in kind (e.g. secondment of personnel) contributions.

6 REVIEW OF THE PROGRAMME

6.1 Assessment of the overall effectiveness of the Programme is an integral part of the Programme itself. This assessment will be based on monitoring and evaluation of the activities carried out under it and focus on the implementation of the Convention or the Protocol in those countries which received technical assistance.

6.2 This assessment will occur on a regular basis, through the appropriate mechanism established by the Consultative Meeting.

ANNEX 5

**FUTURE WORK PROGRAMME OF THE SCIENTIFIC GROUP
(TWENTY-FIRST, TWENTY-SECOND AND TWENTY-THIRD MEETINGS)**

		1998 21st	1999 22nd	2000 23rd	TARGET COMPLETION DATE
1	WASTE ASSESSMENT GUIDANCE: • Development of waste-specific guidance (including on vessels and organic material)	XXX	XXX		1999?
2	WASTE ASSESSMENT GUIDANCE: • Experience with practical implementation of the WAG	X	X	X	ON-GOING
	• Risk assessment procedures in waste management	X	X	X	ON-GOING
	• Application of biological assessment techniques	X	X	X	ON-GOING
	• Underlying principles for describing action levels	XX	X		1999
	• National action levels and their application	X	X	X	ON-GOING
	• Alternative waste management options	X	X	X	ON-GOING
3	CROSS SECTORAL ACTIVITIES: • Application of LC 1972 expertise in other areas of marine environmental protection (e.g., MARPOL and GPA)	X	X	X	ON-GOING
4	MONITORING: • Reports and assessment of monitoring	XX	XX	XX	ON-GOING
	• National and regional strategies	X	X	X	ON-GOING
5	NEW TECHNIQUES IN ASSESSING ENVIRONMENTAL IMPACTS OF DISPOSAL	X	X	X	?
6	TECHNICAL CO-OPERATION: • WAG Training Package	XX			1998
	• General issues	X	X	X	ON-GOING
7	TERMS OF REFERENCE: • Review by the Scientific Group	X			1998

ANNEX 6

**LIST OF SUBSTANTIVE ITEMS AGREED FOR INCLUSION IN THE
AGENDA FOR THE TWENTIETH CONSULTATIVE MEETING**

- 1 Consideration of the report of the Scientific Group.
 - 2 Technical co-operation and assistance
 - 3 Monitoring for the purposes of the London Convention 1972
 - 4 The International Year of the Oceans 1998.
 - 5 Review of the Rules of Procedure for the Consultative and Special Meetings of Contracting Parties to the London Convention 1972.
 - 6 Administrative arrangements for the 1996 Protocol.
 - 7 Development of compliance arrangements.
 - 8 Matters related to the disposal of radioactive wastes
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