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**Remarks:**

**Approved For Release 2008/10/29 : CIA-RDP86M00886R000400010038-9**
Interagency Group No. 32

TO:     NSC         - Mr. Robert Kimmitt
         CIA
         Commerce        - Mrs. Helen Robbins
         Defense        - COL John Stanford
         Energy         - Mr. William Vitale
         EPA            - Mr. Fitzhugh Green
         Interior       - Mr. Barry Allbright
         JCS            - CDR Timothy Hartung
         Justice        - Mr. Roger Clegg
         NSF            - Dr. Francis Johnson
         OMB            - Mr. Alton Keel
         OPD            - Mr. Edwin Harper
         Transportation - Mr. Logan H. Sallada
         Treasury       - Mr. Christopher Hicks
         UNA            - Amb. Harvey Feldman

SUBJECT: January 10 Meeting on Disposal into the Seabed of High-Level Radioactive Waste

It will be recalled that the status under the London Dumping Convention (LDC) of sub-seabed emplacement of high-level radioactive waste was addressed at a meeting of legal experts which took place in London, December 12-14, 1983. That meeting was inconclusive and the question of sub-seabed emplacement, now known as "emplacement into the seabed," will be discussed again at the Eighth Consultative Meeting of the Contracting Parties to the LDC (LDC 8), scheduled for February 20-24, 1984. Ambassador Malone will chair a meeting of the IG on January 10, 1984, in Room 7835, Department of State, 2201 C Street, N.W. at 2:30 p.m. to decide on the position to be taken by the U.S. delegation to LDC 8 and to lay out a course of action to be followed in preparation for that meeting.

Attached is a proposed agenda for the IG meeting, the agreed United States position for the December meeting of legal experts, and the draft report of that meeting.

Charles Hill
Executive Secretary

Attachments:
As stated.
Interagency Group on Oceans Policy
and Law of the Sea

Draft Agenda

January 10, 1984

1. U.S. position on applicability of London Dumping Convention
to disposal into the seabed of high-level radioactive waste.

Alternatives include the following:

--- Attempt to obtain approval of the draft resolution
circulated by the U.S. delegation at the December 12-14
legal experts meeting,

--- Agree that disposal into the seabed is covered by the
LDC definition of dumping but that it is not banned
because the definition of high-level radioactive waste
does not apply in this case,

--- Agree that disposal into the seabed is covered by the
Convention and that the activity is banned,

--- Attempt to avoid a final determination in February as
to the applicability of the Convention.

2. Preparations for the February 20-24 meeting of the Parties
to the LDC.

--- What demarches are required?

--- Preparation of draft position papers for circulation
to the public prior to the February 7 meeting of the
Public Advisory Committee.

--- Final review of the position at February 14 meeting
of the Interagency Policy Committee on the London
Dumping Convention
December 12-14, 1983

Agenda Item 3

Legal implications of seabed disposal of high-level radioactive wastes and other hazardous wastes on the London Dumping Convention.

ISSUE

The meeting will address the question of whether sub-seabed emplacement of high-level radioactive waste and other hazardous wastes falls within the scope of the London Dumping Convention, and whether the Convention should be modified to take sub-seabed emplacement into account.

BACKGROUND

The Nuclear Energy Agency of the OECD (NEA) has been coordinating international research to determine the technical feasibility of sub-seabed emplacement of high-level radioactive wastes since 1977. The United States is participating in this effort through the Department of Energy, which is funding research activities of Sandia Laboratories in the area. The DOE budget for this activity was $6 million in FY 1983 and comes to a cumulative total of $37 million since the program began in FY 1974. Research has not identified insuperable technical barriers to sub-seabed emplacement but it will not be possible before 1990 to reach firm conclusions as to the technical feasibility and environmental acceptability of the concept. Assuming that it is determined to be feasible and environmentally acceptable, and assuming that legal and/or political considerations permit realization of the concept, actual sub-seabed operations could begin shortly after the turn of the century.

In February, 1983, the Norwegian delegation to LDC VII drew attention to the NEA-coordinated research and suggested that a meeting of legal experts to be convened by the Parties to the LDC to discuss the legal implications of the activity in the light of the Convention.

The NEA has submitted documentation to the IMO outlining its research and touching on the legal questions. The IMO,
acting as secretariat for the LDC, has also prepared an analysis of some legal questions. The IMO document antici-
pates, in particular, a discussion of whether sub-seabed emplacement is "dumping", as that term is defined in the LDC and LOS Conventions, and what the legal implications would be if sub-seabed emplacement were either prohibited or allowed under certain circumstances.

U.S. POSITION

--- The United States believes that the London Dumping Convention is the appropriate international forum to address sub-seabed emplacement issues.

--- The United States recognizes sub-seabed emplacement as a potential future disposal option. The United States supports continued research on sub-seabed emplacement and encourages all Contracting Parties to cooperate in this effort to determine the technical and environmental feasibility of sub-seabed emplacement. In this regard, the United States believes that within its terms of reference, the Scientific Group should work with competent international bodies, in particular the NEA. The United States regards such research as essential and as entirely consistent with the London Dumping Convention.

--- The text and meaning of the London Dumping Convention are not clear on the question of sub-seabed emplacement of high-level radioactive and other hazardous wastes, and the Convention is subject to conflicting interpretations.

--- The question of whether sub-seabed emplacement is "dumping" within the meaning of article III of the Convention should be resolved on a case-by-case basis, depending on the specific technology. A determination as to whether the activity is "dumping" cannot be made in the abstract because research alternatives may include a wide range of technologies, not all of which might be considered "dumping" as defined in the Convention.

--- Whatever the case with regard to the present applicability of the LDC to sub-seabed emplacement, we believe that such emplacement, if and when determined to be feasible, should be regulated under the Convention.

--- It will not be before 1990 that the technical and environmental feasibility of sub-seabed emplacement will be better understood and not before the end of the century before any potential operations could take place. While the United States recognizes that the Contracting Parties must consider at the appropriate time how sub-seabed
emplacement would be governed by the Convention should it become a practical alternative, it believes that such consideration is premature at this time and should be addressed in detail only if and when it becomes clear that sub-seabed emplacement is feasible, and only when such consideration can be informed by and based on appropriate scientific and technical factors.

The NEA paper (which does not purport to reflect government views), briefly touches upon, without making any specific conclusions, certain matters relating to the 1982 Law of the Sea Convention, including the seabed provisions and the role of the International Seabed Authority. In this regard, the U.S. believes that the seabeds provisions of the 1982 Law of the Sea Convention do not reflect customary international law nor do they govern sub-seabed emplacement. The International Seabed Authority, should it ever come into being, has no authority to address sub-seabed emplacement.

The United States generally agrees with the views expressed in the IMO paper. The United States is prepared to discuss the provisions of Part XII of the 1982 Law of the Sea Convention as they may pertain to sub-seabed emplacement and to the London Dumping Convention, since those provisions are generally reflective of customary international law. The United States believes that there is no inconsistency between the 1982 Law of the Sea Convention and the London Dumping Convention and that the former recognizes the primary role of the London Dumping Convention in matters pertaining to ocean disposal of wastes and other matter. In this regard the United States believes that the definition of dumping in the London Dumping Convention and the 1982 Law of the Sea Convention are consistent in substance and scope.
THE EIGHTH CONSULTATIVE MEETING,

RECOGNIZING that the disposal at sea of high-level radioactive wastes, as defined in Annex I of the Convention on the Prevention of Pollution by Dumping of Wastes and other Matters, is prohibited by Article IV of the Convention,

RECALLING Resolution LDC.15(7) by which the Seventh Consultative Meeting decided to convene an intersessional meeting of legal experts to clarify the interpretation of Article III of the Convention in relation to disposal of high-level radioactive and other hazardous wastes in the seabed,

RECOGNIZING FURTHER the potential of seabed emplacement as a possible future waste disposal alternative, and the need for further research on this concept,

AWARE that potential technologies for such sub-seabed emplacement have not yet been determined to be scientifically or technically feasible, and that no state has proposed or is prepared to propose a program of sub-seabed emplacement,

NOTING that any program for sub-seabed emplacement of high-level radioactive and other hazardous wastes would have to be consistent with the obligations under the Convention to protect the marine environment,

NOTING FURTHER the report of the Group of Legal Experts convened in London December 12-14, 1983 to consider the question of seabed emplacement of high-level radioactive wastes under the Convention,

INVITES contracting parties and international organizations in accordance with Article 14 of the Convention, to encourage research on the technical feasibility and environmental effects of seabed emplacement and other waste disposal methods for high-level radioactive wastes,

AGREES that the meetings of the Contracting Parties are the appropriate forum to address the question of sub-seabed emplacement of high-level radioactive and other hazardous wastes, and that the Convention is the appropriate international instrument for the regulation of such activities,

DECIDES that the question of how sub-seabed emplacement should be regulated under the Convention should be determined according to the specific technology applied,
REQUESTS countries and international organizations involved in research on seabed emplacement to keep the contracting parties informed as to the progress of such research.

RESOLVES that before any Contracting Party implements a sub-seabed emplacement program, such Party shall recommend to the Contracting Parties a legal framework for the regulation of such program.

December 8, 1983
INTRODUCTION

1.1 The Ad Hoc Group of Legal Experts on Dumping met at IMO Headquarters in London from 12 to 14 December 1983, in accordance with a decision made by the Seventh Consultative Meeting (LDC/7/12, paragraph 10.6). Mr. Y. Sasamura, Director of the Marine Environment Division, welcomed the Working Group on behalf of the Secretary-General of IMO.

1.2 The meeting was attended by experts representing the following States:

AUSTRALIA
CANADA
CHILE
DENMARK
FINLAND
FRANCE
GERMANY, FEDERAL REPUBLIC OF
IRELAND
JAPAN
MEXICO
NAURU
NETHERLANDS
NORWAY
PHILIPPINES
PORTUGAL
SPAIN
SWEDEN
SWITZERLAND
USSR
UNITED KINGDOM
UNITED STATES

and by observers from the following United Nations organizations and inter-governmental and international non-governmental organizations:

UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP)
INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (IOC)
INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA)
ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT/NUCLEAR ENERGY AGENCY (OECD/NEA)
COMMISSION OF THE EUROPEAN COMMUNITIES (EEC)
INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS (IAPH)
EUROPEAN COUNCIL OF CHEMICAL MANUFACTURERS' FEDERATIONS (CEFIC)
FRIENDS OF THE EARTH INTERNATIONAL (FOE)
INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES (IUCN)
GREENPEACE INTERNATIONAL

1.3 At the opening of the meeting, Mr. A. Bos (Netherlands) was unanimously elected Chairman of the Ad Hoc Group of Legal Experts.
1.4 The Agenda for the session as adopted by the Ad Hoc Group appears at Annex 1 and includes, under each item, a list of the documents which were submitted.

2 REVIEW OF THE STATUS OF ACTIVITIES AND STUDIES RELATING TO SEABED DISPOSAL OF WASTES

2.1 The Ad Hoc Group took note of the technical information provided by the Secretariat (LDC/LG 2/2) and the OECD/NEA (LDC/LG 2/2/1). It was noted in particular that since the NEA Seabed Working Group was established in 1976, eight OECD countries (Canada, France, the Federal Republic of Germany, Japan, the Netherlands, Switzerland, the United Kingdom and the United States) have become members of that Group. The main purpose of the NEA Seabed Working Group was to find answers to the following key questions:

.1 is it possible to implant waste-filled canisters in the seabed sediments and what effect does this have on the barrier properties of the containment?

.2 are there locations of the oceans, which have the geologic stability and barrier properties suitable for seabed burial?

.3 what are the radiological consequences of seabed burial?

In order to facilitate the work of the Seabed Working Group eight task groups have been established, including one on legal and institutional questions.

2.2 The work carried out so far within the various task groups of the NEA Seabed Working Group was presented by the task group co-ordinator. The Ad Hoc Group welcomed this information and expressed its gratitude for the presentation. The presentation is summarized in paragraphs 2.3 through 2.8 below.

Research and Development (R & D)

2.3 The major objectives of the R & D programme are divided into three interrelated tasks:

.1 to collect the necessary data and develop the computational tools and scientific concepts to make possible an accurate prediction of the effects of seabed disposal;

.2 to study and select sites in the deep ocean which in principle may be suitable for a repository; and

.3 to develop the engineering necessary to transport and emplace solidified and packaged wastes within the ocean floor.
2.4 The research on the seabed disposal concept is being conducted in three consecutive phases. Progressing from one phase to the next is contingent upon successful completion of the tasks in each phase:

.1 **Phase One**: the purpose of Phase One research is to acquire sufficient data by field investigations and by predictive analysis to determine concept feasibility (technical, environmental, engineering, and institutional) of a seabed disposal system. (To be completed by 1989.);

.2 **Phase Two**: if the concept proves feasible, Phase Two would involve designing and developing a seabed disposal system. Such a design would include a recommended site, port facilities, transport and emplacement ships, and systems-monitoring capabilities. Efforts to identify an institutional regime to establish criteria and procedures for the operation of a repository would also be part of Phase Two. (Estimated time to complete: 5 to 7 years after Phase One.); and

.3 **Phase Three**: Phase Three would comprise those efforts necessary to acquire the required institutional permits and licences, to demonstrate the disposal facilities, and to construct and operate a seabed repository. (Estimated time to complete: 10 to 12 years after Phase Two.)

2.5 Site qualification guidelines have been developed based on assumed desirable geological, chemical, physical and biological characteristics. The primary criteria are:

.1 geological and climatological stability;

.2 predictability factors; and

.3 lack of possible resources and other use avoidance factors.

2.6 So far three locations in the North-West Pacific and two areas in the North Atlantic have been identified as candidate study areas and are being subjected to detailed scientific investigations.

**Engineering studies**

2.7 Current efforts in engineering studies focus on whether engineering technology is available to emplace waste canisters at the required depths in the sediment, whether the sediment will fill the hole that the canister
creates in the sediment, and whether the sediment displaced during emplacement will reconstitute so that its waste isolation properties are comparable to those of the undisturbed sediment.

2.8 With regard to radiological assessment, it was pointed out that within the programme the risks associated with normal system operations and projected accidents are being evaluated.

2.9 After presentation of the work carried out so far by the OECD/NEA Seabed Working Group, a discussion centered around questions related to the reliability of emplacement techniques (e.g. penetrator and drilling methods), the monitoring requirements and recovery methods, the risk and safety assessment, and the verification of models used by the Seabed Working Group.

2.10 The Ad Hoc Group of Legal Experts concluded that, although so far no scientific evidence had been found which would indicate that the seabed emplacement option is not feasible, the feasibility assessment is far from complete and that much more research work is needed before a final decision could be made as to whether sub-seabed emplacement could be considered as a safe method for the disposal of high-level radioactive wastes.

2.11 The Ad Hoc Group noted that a status report on Seabed Disposal of High-Level Radioactive Waste is being prepared as a publication by OECD/NEA. The Group expressed its wish that this report should be made available to all Contracting Parties to the London Dumping Convention as soon as possible after its publication. The distribution of any other material which would inform Contracting Parties of the progress of work in this field would also facilitate future deliberations concerning the sub-seabed disposal of high-level radioactive wastes.

3 LEGAL IMPLICATION OF SEABED DISPOSAL OF HIGH-LEVEL RADIO-ACTIVE WASTES AND OTHER HAZARDOUS WASTES ON THE LONDON DUMPING CONVENTION

3.1 Under this agenda item the Ad Hoc Group considered LDC/LG 2/3 prepared by the Secretariat, LDC/LG 2/3/1 submitted by OECD/NEA, a document LDC/LG 2/3/2 submitted by Spain and LDC/LG 2/3/2 submitted by Greenpeace International.

3.2 The document LDC/LG 2/3 presented certain elements and background material to assess:

1 whether the "seabed emplacement" should fall under the definition of "dumping in the London Dumping Convention (LDC) and the new Law of the Sea Convention (LOS); and
what would be the legal implications for the above Conventions, if
the seabed emplacement is to be prohibited, or may be allowed under
certain circumstances,

and invited the Ad Hoc Group to comment on these questions.

3.3 The observers of OECD/NEA when introducing their submission
(LDC/LG 2/3/2) emphasized that full recognition should be given to the fact
that the seabed disposal option is, at this stage, merely a scientific concept
which in their view was worthy of further research and experimentation, and
that the implementation, if any, is not likely to take place before at least
the end of this century.

3.4 The Ad Hoc Group was informed by OECD/NEA that during the experimental
phase, it will be necessary for scientists to conduct in situ experiments,
involving various field verification tests in and on the deep sea floor.
Since the purpose of such experiments was not the ultimate disposal of
radioactive wastes, the provisions of the London Dumping Convention would not
apply, but such studies would be subject to the conduct of marine scientific
research as recognized in Part XIII “Marine scientific research” in the 1982

3.5 In the event that the sub-seabed emplacement of high-level radioactive
wastes were proven a safe disposal method, international regulation and
control would be needed either under the London Dumping Convention or under
the Law of the Sea Convention or any other international legal instrument. In
this connexion OECD/NEA expressed the view that sub-seabed emplacement of
high-level radioactive wastes was not covered by the provisions of the London
Dumping Convention.

3.6 The above view was based on the opinion of legal authorities that the
object and purpose of the London Dumping Convention as set out in its preamble
reveals no stated intent to regulate the disposal of nuclear wastes within the
seabed. This accords with the fact that this disposal concept was not widely
discussed by the scientific community until around 1973, some time after the
drafting of the Convention. The Convention therefore, as currently drafted
and applied, was in fact intended to regulate the "dumping" of radioactive
wastes into marine waters and was not intended to apply to any seabed disposal
activity involving the effective "isolation and containment" of radioactive
materials away from marine waters, particularly as various studies of the
authentic texts (English, French, Spanish and Russian versions) of the London Dumping Convention in comparison with other international legal instruments on dumping (e.g. Oslo Convention, Barcelona Convention) relate to the final receiving medium of the wastes disposed of, and not to the location of the disposing party or vessel.

3.7 The expert from Spain, introducing its document (LDC/LG 2/3/3), pointed out that although the possibility of emplacing wastes in the seabed was not among the concerns that preoccupied the drafters of the London Dumping Convention, the provisions of that Convention undoubtedly contain specific stipulations which legally forbid such disposal. This was based on the following:

1. the provisions of Article IV in context with Annex I prohibits the disposal at sea of high-level radioactive wastes;

2. the disposal of the prohibited waste in the seabed cannot physically be achieved without passing through the actual "waters";

3. even if the wastes remain in the seabed it is difficult to affirm that these wastes will not be in immediate contact with "waters"; and

4. in the preamble of the Convention express reference is made to "the sea-bed and the ocean floor and the sub-soil thereof" which proves that the seabed had also been considered a part of the sea to which the protection afforded by the Convention is extended.

3.8 It was further emphasized that the basic treaty principle of interpretation in good faith requires that legal texts (in this case the London Dumping Convention) be interpreted so that the outcome of the interpretation is as fair as possible in accordance with the requirements of the law in force. In this context it should be recalled that modern international law has definitively declared that the seabed - in which the high-level radioactive wastes are assumed to be located - constitutes a "common heritage of mankind" which can be used only for the benefit of all in accordance with the international regime which is established (resolution 2749(XXV) of the General Assembly of the United Nations).
3.9 In the submission by Greenpeace (LDC/LG 2/3/2) the provisions of the London Dumping Convention are evaluated in detail, leading to the conclusion that:

.1 consistent with the object and purpose of the London Dumping Convention, "disposal at sea" should be interpreted to include disposal of high-level radioactive wastes in the sea-bed, with such disposal prohibited under Annex I;

.2 in reaching this decision, the Contracting Parties can note that other international instruments - including the 1958 Law of the Sea Conventions, the UN General Assembly resolution 2749 (XXV), the Stockholm Conference on the Human Environment, and the 1982 United Nations Law of the Sea Convention - support the view that the Contracting Parties should broadly interpret their responsibilities to take all necessary measures to protect the marine environment from the threat of pollution by substances that are as highly toxic and persistent as high-level radioactive wastes. This interpretation is preferred because it contributes to the continued effectiveness of the Convention; and

.3 a decision by the Contracting Parties at the Eighth Consultative Meeting regarding the Convention's interpretation and application, as expressed in paragraphs .1 and .2 above, would thereafter be taken into account in relation to any future consideration of seabed disposal of high-level radioactive wastes. Any such subsequent consideration of this issue also should take into account the common concerns contained in both the London Dumping Convention and the Law of the Sea Convention.

3.10 A number of Members of the Ad Hoc Group, considering the submissions outlined above, made comments and statements as summarized in the following paragraphs.

3.11 To the expert from Norway, special risks such as those associated with high-level nuclear wastes should be contained within the territory of the States which generate those risks. When such risks were created outside the territory of such a State there was at least a potential infringement of the rights of other States which were deprived of access to the area of risk. Such risk might be completely unpredictable and errors might never be corrected.
3.12 In interpreting the London Dumping Convention it was safest and most rational to take the view that "disposal at sea" included disposal of high-level radioactive wastes in the seabed, with consequent prohibition thereof under Annex I. Any other approach risked grave practical difficulties of determining the depth of emplacement in seabed sediment necessary to remove this form of disposal from the ambit of the London Dumping Convention.

3.13 The ultimate aim of the feasibility studies would be to secure the certain and permanent isolation of all wastes dealt with in Annex I. Technical and scientific development would in due time disclose whether or not the methods of disposal would achieve this end. The LDC Contracting Parties had already exercised the prerogative of amending the Convention's Annex I "based on scientific or technical considerations" as required in Article XV (2). Until a safe method of disposal was found no step should be taken to give new meanings to existing provisions. In the meantime, all interested governments and organizations would be free to undertake the necessary research. The areas under the seabed were part of the marine environment and nothing less than permanent isolation of high-level radioactive wastes and other Annex I substances could be contemplated for eventual disposal therein.

3.14 The expert from the Federal Republic of Germany stated that with regard to the evaluation of the wording "disposal at sea" as distinct from "rejet dans la mer" any interpretation of the Convention from the point of view of the wording should be avoided but that the spirit of the Convention should be taken into account. The sole aim of the Convention was the protection of the marine environment; hence it followed that any emplacement of high-level radioactive waste would have to be carried out in such a way as to permanently isolate it so that it could not endanger the marine environment. Any possibility of a threat to the marine environment by high-level radioactive substances would be considered as a violation of the provisions of the Convention.

3.15 The French expert considered that the methodology of emplacing wastes in the seabed was not included in the provisions of the London Dumping Convention. He further expressed the view that the terms "marine waters" would not include sea sediments. However, it would be appropriate for an additional Annex, Addendum or Protocol to the Convention to be considered for.
the inclusion of regulations concerning the emplacement of wastes in the seabed, provided that the seabed emplacement concept could be proved as a safe disposal method.

3.16 The observer from the International Association of Ports and Harbors drew attention to the fact that various statements made so far had referred to Annex I substances other than high level radioactive wastes. In that context it reminded the Ad Hoc Group that any consideration of the capping of dredged material contaminated with Annex I substances should be excluded from this discussion. Should future development of sub-seabed disposal of high level radioactive waste to secure isolation of the waste be proved, IAPH was also of the opinion that future evaluation by Contracting Parties should include evaluation of the applicability of paragraphs 8 and 9 of Annex I, as well as the necessity of adopting amendments to the Convention.

3.17 The United Kingdom delegation pointed out that at this stage it felt it was premature to consider any development of rules or regulations for the safe disposal of high-level radioactive wastes in the seabed. The Consultative Meeting of Contracting Parties should nevertheless be continuously informed of the progress of work carried out within the OECD/NEA Seabed Working Group, and take action at a time when the operational phase of the concept is approaching, either by preparing an amendment to the provisions of the Convention, to its Annexes, or a protocol. In any case, no decision can be made without having a better knowledge of the scientific and technical background.

3.18 The observer from IAEA drew attention to the fact that her agency when defining the term "high-level radioactive waste ... unsuitable for dumping" as mentioned in Annex I to the Convention, had developed an approach which was different from that related to "high-level radioactive wastes" considered for disposal on land. When defining these terms for the London Dumping Convention the dispersal of the radioactive wastes in the marine environment had been taken into account, whereas the storage of such wastes on land was based on principles of permanent confinement and isolation.

3.19 All criteria of harm and interference with the geosphere and biosphere were based on the assumption of immediate release from the drums, since containment could not be relied upon. IAEA was aware that the oceans contained radioactivity and could absorb more, but its policy was always to
encourage containment when that method was predictably effective. The concept of seabed emplacement was more akin to deep geological disposal on land than to ocean dumping.

3.20 The expert from the Netherlands was convinced that sub-seabed emplacement was not covered by the London Dumping Convention. The matter had not been thought about previously and no State could be compelled to answer to a treaty obligation unless it had agreed thereto expressio verbis.

3.21 It did not follow from that that the technique should not be internationally regulated. Once it was clear what the technique consisted of the regulation of it would follow. In any event, the London Dumping Convention was the appropriate instrument of such a regulatory regime. The expert would recommend that the Group propose that the Consultative Meeting keep the matter under review and follow the work of other organizations such as IAEA and OECD/NEA.

3.22 The Canadian expert stated the view that sub-seabed emplacement was a form of dumping. It came within the Article III definition as a form of disposal at sea. In 1972 the Final Act in both English and French had referred to "disposal at sea by ships at sea" and only later, when the authentic texts were studied and altered for linguistic consistency in accordance with a decision taken by the Conference, had the terms "into the sea" and "dans la mer" been introduced without, however, a specific notification of the change to Contracting States. In other parts of the treaty, "at sea" or "en mer" were left unchanged. In Canada, the London Dumping Convention was considered to cover sub-seabed emplacement and to prohibit it as a measure of protection of the entire marine environment.

3.23 The Finnish expert favoured a broad concept of the marine environment as part of the protective and preventive purposes of the London Dumping Convention. Annex I was a black list of substances which were prohibited until it was demonstrated that they could be disposed of safely. The expert did not think that it was of particular relevance that the drafters of the London Dumping Convention did not contemplate sub-seabed emplacement. No treaty could take account of every future event of later concern to it but if the language of a treaty could be applied to such later developments it was proper to do so.
3.24 It was because the technique did not exist that the IAEA had not dealt with it in the past and if there were no present available recommendations on sub-seabed emplacement from IAEA, it was because IAEA had not yet prepared them for disposal on land. No conclusions should therefore be drawn from activities at IAEA in endeavouring to interpret the London Dumping Convention.

3.25 The expert from Nauru, who considered that dumping and emplacement were identical, expressed the view that most radioactivity would be absorbed by sediments at the seabed and that the disposal of low-level wastes as well as sub-seabed emplacement presupposed the break-down of containment. The IAEA observer stated that radionuclides were not ordinarily absorbed in sediment but when released were dispersed. The relative factors were the depths of the disposal area and the concentrations involved. The IAEA did encourage both containment and isolation of containers.

3.26 The expert from the United States, emphasizing the future role of the London Dumping Convention as a forum to address the disposal of radioactive waste in the seabed, pointed out that the Scientific Group on Dumping should work on this matter with other competent bodies, in particular the OECD/NEA. She further expressed the view that the question of whether sub-seabed emplacement is "dumping" within the meaning of Article III of the Convention should be resolved on a case-by-case basis, depending on the specific technology. In light of the fact that a decision on the technical and environmental feasibility of disposal of radioactive waste in the seabed will not have to be made before the end of the century, the United States expert considers it premature to discuss in detail at this stage any legal requirements concerning the safe disposal of such wastes.

3.27 The United States recognizes sub-seabed emplacement as a potential future disposal option and supports continued research on this matter and encourages all Contracting Parties to cooperate in this effort to determine the technical and environmental feasibility of this method.

3.28 The United States also recognized that the text and meaning of the London Dumping Convention were not clear on the question of sub-seabed emplacement of high-level radioactive and other hazardous wastes, and that the conflicting interpretations of the relevant provisions of the Convention will have to be clarified. Nevertheless, the United States felt that with regard to the present applicability of the Convention to sub-seabed emplacement, such
3.29 In the view of the Chilean expert there was a general acceptance of the view that sub-seabed emplacement should be covered by the London Dumping Convention. But no purpose would be served if any present action by the Contracting Parties or by the experts were not adopted by consensus.

3.30 The Irish expert invited attention to Article XII of the London Dumping Convention and to its sub-paragraph (d). The Article called for "measures to protect the marine environment against pollution" and then went on to list sources including "radioactive pollutants from all sources, including vessels". It was clear to him that to "protect" was to envisage a danger of pollution and that there is presently known to be such a danger. Therefore it could not be said that the new technique was not covered by the London Dumping Convention. The Group should state this to the Consultative Meeting.

3.31 The expert from Spain had no doubt that "dumping" had the meaning of any deliberate disposal at sea and that the London Dumping Convention had as its objective the prevention of pollution of the entire marine environment. The sea was a unity and included the seabed, the sub-soil thereof and the superjacent waters. Sub-seabed emplacement in this expert's view was contrary to existing international law. This was so whether Article III was interpreted in accordance with the canons of interpretation of the Vienna convention on the Law of Treaty, 1969, or the London Dumping Convention was recognized as subject to the peremptory norms of international law for the protection of the marine environment, as enunciated in the Law of the Sea Convention. In any case, the interpretation of Article III of the London Dumping Convention, following Article 31 of the Vienna Convention, required that such interpretation should be arrived at in good faith in accordance with the ordinary meaning of its terms in their context. The explicit objective of the treaty was "preventing marine pollution by dumping" and it was also the fundamental obligation assumed by the Contracting Parties.

3.32 Another point was made by the Spanish expert with regard to marine scientific research in rebuttal of the OECD/NEA position set out in document LDC/LG 2/3/1. The expert considered that it was not enough to state that research was not polluting for it to be permitted as marine scientific research according with international law. In his view the objective of
research of this character might not be purely scientific but relate to economic, industrial or even military purposes. Such purposes might not be compatible with the freedom to conduct such research. The OECD observer replied that he knew of no limitation on the conduct of marine scientific research in the areas in question except the constraint of respect for the marine environment.

[to be continued]
3.33 Following the foregoing presentations of national positions and the positions of observer organizations, three draft resolutions were tabled before the meeting, the first submitted jointly by Denmark, Finland, Norway and Sweden, the second jointly by France and the United Kingdom and the third by the United States.

3.34 The introduction of the first draft resolution by the expert from Norway is recorded in paragraph 3.13 bis of this report.

3.35 In presenting the second draft resolution, the experts from France and the United Kingdom said that they submitted this draft resolution as a basis for discussion and to contribute to the search for a consensus. In particular it expressed the following thoughts: disposal in the seabed was not considered by the London Conference in 1972 in preparing the Convention, or by the IAEA in 1973, and was not within the definition of dumping in the Convention. But seabed disposal must not be put into practice without adequate studies and a system of management and control. But the Contracting Parties should accept responsibility for considering all aspects of this question, and that, in the light of further studies, they should proceed at the appropriate moment to make necessary changes in the provisions of the Convention and other arrangements for management and control.

3.36 A general agreement not having been reached on this text, the experts from France and the United Kingdom have decided in a spirit of openness not to ask for its inclusion as an annex to the final report. In order to contribute usefully to the work of the next Consultative Meeting, it seemed to them in fact desirable to put forward a basis for work rather than to submit documents which could make the work of the meeting by making positions presented as a basis of negotiations appear as if they were fixed. Therefore the withdrawal must not be interpreted as an acceptance of the draft resolutions included as an Annex.
3.37 In presenting the third draft resolution which is shown at Annex ... to the report, the United States expert stated that it was intended to serve not only as an expression of its views, but also attempt to incorporate as many of the consensus points as possible.

3.38 In the course of the general debate, some views were expressed on the draft resolution submitted by the experts from the four Nordic countries. Several other experts indicated support for the main elements of the proposal, while some expressed their disagreement. However, there was no discussion of the other two draft resolutions as it was hoped that the three draft resolutions could be combined into a single text.
DRAFT REPORT OF THE AD HOC GROUP OF LEGAL EXPERTS ON DUMPING

Amendments to LDC/LG 2/WP.1

Paragraph 2.3

to be replaced by final paragraph of page 1 of LDC/LG 2/2/1

Paragraph 2.10

to be inserted between 2.8 and 2.9 and first line changed to:
"The OECD/NEA expert concluded ...".

Paragraphs 3.3, 3.4 and 3.5

New text as follows:

3.3 The observers of OECD/NEA introduced document LDC/LG 2/3/1 which reflected the views of the Legal Task Group of the NEA Seabed Working Group. They emphasized that full recognition should be given to the fact that the sub-seabed disposal option is, at this stage, merely a scientific concept which in their view was worthy of further research and experimentation, and that the implementation, if any, is not likely to take place before at least the end of this century.

3.4 It was stated that it was necessary to make a clear distinction between the research/experimental phase, on the one hand, and the operational phase, on the other hand, because different conditions exist and different legal regimes therefore apply.

3.5 The Ad Hoc Group was informed by OECD/NEA that during the experimental phase, it will be necessary for scientists to conduct in situ experiments, involving various field verification tests in and on the deep sea floor. Since the purpose of such experiments was not the disposal of radioactive wastes within the seabed, the provisions of the London Dumping Convention would not apply, but such studies would be subject to rules relating to the conduct of marine scientific research.
beyond national jurisdiction under general international law. These
rules stipulate that such activities be limited to peaceful purposes, be
consistent with marine environmental protection provisions of several
treaties, and not interfere with other legitimate uses of the marine
environment. However, States are responsible and liable for any damage
caused by pollution to the marine environment arising from such
activities.

3.6 In the event that the sub-seabed emplacement of high-level
radioactive wastes were proven a safe disposal method, international
regulation and control would be needed before actual implementation of
the operational phase could begin. With respect to the applicability of
the London Dumping Convention, the crucial question is whether actual
burial of high-level wastes within the seabed would constitute "dumping"
as defined by Article III of the Convention. In this connection the
OECD/NEA observers expressed the view of the Task Group that sub-seabed
emplacement of high-level radioactive wastes was not covered by the
provisions of the London Dumping Convention.

Paragraph 3.7

Replace existing sub-paragraphs 3.7.1, 3.7.2 and 3.7.3 with the following
text:

Following the general rules of interpretation established by
Articles 31 to 33 of the Vienna Convention on the Law of Treaty, 1969,
Article III of the London Dumping Convention, interpreted in good faith,
according to ordinary meaning of its terms in their context and in the
light of the object and purpose of the Convention, does legally cover and
indeed prohibits all kinds of marine disposal that might endanger the
preservation of the marine environment. In particular the London Dumping
Convention text firmly prohibits any marine emplacement of high-level
radioactive wastes (Article IV, Annex I, 6)

Paragraph 3.8

Some minor additions.
Paragraph 3.9

Introductory text amended as follows:

3.9 In the submission by Greenpeace International (LDC/LG 2/3/2) the provisions of the London Dumping Convention are evaluated in detail. Those concerns also were addressed in a working paper that was distributed on behalf of Greenpeace at the meeting. In summary, the conclusions presented by Greenpeace were that:

Paragraph 3.10

Amend to read:

3.10 A number of members of the Ad Hoc Group made comments under this agenda item.

Paragraphs 3.11, 3.12 and 3.13

Amend to read:

3.11 To the expert from Norway, special risks such as those associated with high-level nuclear wastes should be contained within the territory of the States which generate those risks, instead of being disposed of in areas under national jurisdiction. When such risks were created in international areas, there was at least a potential infringement of the rights of other States which were deprived of access to the area of risk. If anything goes wrong in employing the proposed seabed disposal method, it will be very difficult afterwards to implement corrective measures.

3.12 In interpreting the London Dumping Convention the Norwegian expert expressed the view that "disposal at sea" includes disposal of high-level radioactive wastes in the seabed. Any other interpretation will cause grave practical difficulties in determining the depth of emplacement in the seabed sediment necessary to remove this form of disposal from the ambit of the Convention.

3.13 The ultimate aim of the ongoing feasibility studies under the OECD/NEA should be to disclose whether or not seabed disposal would provide permanent isolation of the wastes from the biosphere. Such permanent isolation would be a minimum requirement before seabed disposal could be said to be taken outside the prohibition in Annex I of the London Dumping Convention.
3.13 bis On behalf of Denmark, Finland, Norway and Sweden, the Norwegian expert presented a joint draft resolution to be recommended by the Ad Hoc Group of Legal Experts on Dumping for adoption by the Eighth Consultative Meeting of the London Dumping Convention. The main conclusions of this recommendation are that:

- any deliberate disposal of high-level radioactive wastes and other high-level radioactive matter, as defined under Annex I, paragraph 6 to the Convention, from vessels, aircraft, platforms or other man-made structures at sea, into the marine environment, including the seabed, is incompatible with the provisions of the Convention; and

- should future technological development provide methods of seabed disposal that are proved to secure the isolation from the biosphere of high-level radioactive wastes or other high-level radioactive matter as defined under Annex I, paragraph 6 to the Convention, the Contracting Parties shall evaluate the necessity of adopting appropriate amendments to the Convention.

The text of the draft resolution is reproduced at Annex ... to the report.

Paragraph 3.14

Amend to read as follows:

The expert from the Federal Republic of Germany stated that with regard to the evaluation of the wording "disposal at sea" as distinct from "rejet dans la mer" any interpretation of the Convention from the point of view of the wording should be avoided but that the spirit of the Convention should be taken into account. The sole aim of the Convention was the protection of the marine environment, hence it followed that any emplacement of high-level radioactive waste would have to be carried out in such a way as to permanently isolate it so that it could not endanger the marine environment. That means: in case that scientists and technologists should be successful in developing a method which makes possible seabed disposal of high-level radioactive substances without endangering the marine environment and which excludes any detrimental change in the seawater, the Federal Republic of Germany would not oppose such a dumping and would hold an amendment of the Convention not to be
necessary. Any possibility of a threat, however, to the marine environment would be considered as a violation of the provisions of the Convention.

Paragraph 3.15

Amend to read as follows:

3.15 The French expert stated that research concerning disposal into the seabed is at a very preliminary stage and no State is considering any possible use of seabed emplacement at present or in the near future. In no case does France intend to proceed to disposal into the seabed unless it has been proved fully safe for the environment and unless this practice is covered by an international agreement. The London Dumping Convention seems to be the appropriate framework within which to discuss disposal into the seabed of wastes, in particular high-level radioactive wastes. Nevertheless, emplacement into the seabed as a method of disposal does not fall within the scope of the Convention as it is present wording. Therefore, should research conclude on a technical feasibility with respect to the protection of the environment along the principles laid down in the London Dumping Convention, the necessary changes in the definition of dumping and in other provisions of the Convention and the other appropriate arrangements for the management and control of this activity would be made in due course.

Paragraph 3.17

Add after final sentence:

Seabed disposal was not foreseen at the London Conference and was not considered when legislatures approved the Convention. It was not within the context, the object or the purpose of the Convention and it is not covered by the Convention. But, when the technical aspects were clearer, Contracting Parties to the Convention should discuss what changes in the Convention should be made, by protocol, supplementary convention or otherwise.

Paragraphs 3.18 and 3.19

Amend to read as follows:

3.18 The observer from IAEA drew attention to the fact that her agency when defining the term "high-level radioactive waste ... unsuitable for dumping at sea" as mentioned in Annex I to the Convention, based its
approach on wastes packaged in drums, dumped from ships and reaching the sea floor intact before release into the marine environment. This concept is different from the normal definition of "high-level radioactive wastes" considered for disposal on land. When defining wastes unsuitable for dumping at sea for the London Dumping Convention, the disposal of the radioactive wastes in the marine environment had been taken into account, whereas the disposal of high-level wastes on land is based on the principles of containment and isolation. Therefore, both the activity concentrations and techniques involved are quite distinct.

3.19 In defining wastes unsuitable for dumping at sea under the LDC, the criteria used was the prevention of pollution resulting in harm to man and marine organisms and interference with other uses of the sea. IAEA acknowledged that the oceans contain radioactivity and does have the capacity to assimilate more, but its policy was always to encourage containment whenever feasible. The concept of sub-seabed emplacement was more akin to deep geologic disposal on land than to ocean disposal of packaged wastes since isolation from the biosphere is a requirement for the first category of wastes, and would require modification of the current definition of high-level radioactive wastes unsuitable for dumping at sea.

**Paragraphs 3.20 and 3.21**

Amend to read as follows:

3.20 The expert from the Netherlands was of the opinion that sub-seabed emplacement was not covered by the London Dumping Convention. The matter had not been thought of at the time of the conclusion of the Treaty and no State could be compelled to answer to a treaty obligation unless it had agreed thereto expressis verbis.

3.21 It did not follow from that the techniques should not be internationally regulated. Once it was clear what the technique consisted of the regulation could follow. In any event, the framework of the London Dumping Convention could be the appropriate instrument of such a regulatory regime. The expert would recommend that the Group propose that the Consultative Meeting keep the matter under review in cooperation with IAEA and OECD/NEA.
Paragraph 3.22

Amend to read as follows:

3.22 The Canadian expert recalled that it was not the task of the Legal Experts Group to discuss the policy aspects of sub-seaied disposal. He stated that sub-seaied disposal was covered by the Article III definition of dumping.

He noted that in 1972 the Final Act of the Conference had translated the expression in the English text “disposal at sea” by “rejet en mer” in the French text. In seeking to ensure the linguistic consistency of all four authentic texts, “rejet en mer” had subsequently been replaced by “rejet dans la mer” without, however, a specific notification of the change to Contracting Parties. All five other uses of the term “at sea” in Article III 1(a) and (b) remained translated by “en mer” and “disposal at sea” had not been changed to “disposal into the sea”. Since the change in the French text had not been intended to be a substantive change, the context and the object and purpose of the Convention led to the conclusion that “disposal at sea” refers to the location of the disposing party, not of the disposed wastes.

The Canadian expert expressed the hope that the Group could make recommendations to the Eighth Consultative Meeting on the basis of consensus.

Paragraph 3.24

Amend to read as follows:

3.24 It is because the technique of disposal into the seabed does not exist that the IAEA has not in the past prepared any recommendation regarding such activity. Another reason for the IAEA not having prepared any recommendation concerning the possible disposal of radioactive wastes into the seabed is that the Agency has not yet finalized standards and criteria concerning the disposal of highly radioactive wastes into deep geological formations on land. The activities of IAEA in this respect could thus not be taken as a basis in endeavouring to interpret the London Dumping Convention.
Paragraph 3.25

Amend to read as follows:

3.25 The expert from Nauru considered that based on technical and legal grounds "dumping" and "emplacement" should be considered identical for the purposes of regulation of the London Dumping Convention.

Paragraphs 3.26, 3.27, 3.28

Amend to read as follows:

3.26 The expert from the United States, emphasized its view that the London Dumping Convention is the appropriate international forum to address the disposal of radioactive waste into the seabed. She pointed out that the Scientific Group on Dumping should work on this matter with other competent bodies, in particular the OECD/NEA. She further expressed the view that the question of whether sub-seabed emplacement is "dumping" within the meaning of Article III of the Convention should be resolved on a case-by-case basis, depending on the specific technology. In light of the fact that a decision on the technical and environmental feasibility of disposal of radioactive waste into the seabed and any potential operations could not be made before the end of the century, the United States expert considers it premature to discuss in detail at this stage how such activity should be governed by the Convention.

3.27 The United States recognizes sub-seabed emplacement as a potential future disposal option and supports continued research on this matter and encourages all Contracting Parties to cooperate in this effort to determine the technical and environmental feasibility of this method.

3.28 The United States also recognized that the text and meaning of the London Dumping Convention were not clear on the question of sub-seabed emplacement of high-level radioactive and other hazardous wastes, and that the Convention is subject to conflicting interpretations. Nevertheless, the United States felt that with regard to the present applicability of the Convention to sub-seabed emplacement, such disposal method, if and when determined to be feasible, should be regulated under the Convention based on scientific and technical factors.
3.28bis. The United States expert also noted in her intervention that there appeared to be several points on which there seemed to be a consensus among the group of experts and that it was highly desirable to report points of consensus to the Eighth Consultative Meeting. These points of apparent consensus include agreement that the London Dumping Convention is the appropriate forum to address disposal into the seabed of high-level radioactive waste; that the Contracting Parties should keep this matter under continuing consideration, particularly through the Scientific Group on Dumping in consultation with the OECD/NEA; that if feasible, disposal into the seabed should be regulated under the Convention and that any such potential activity would have to be conducted in accordance with the obligation under the Convention and general principles of international law to protect the marine environment; the London Dumping Convention does not explicitly define the seabed and subsoil to be included in the term "at sea" and the Contracting Parties must resort to the context, content and purpose of the Convention to ascertain its scope; that the conference concluding the Convention did not consider disposal into the seabed and that the existing IAEA definition of high-level radioactive wastes for the purpose of the Convention was not based on the containment and isolation principle; disposal into the seabed; and that research was in its early stages and should be continued to determine the feasibility of disposal into the seabed and allow the Contracting Parties to consider this matter, based on appropriate scientific and technical factors.

Paragraphs 3.31 and 3.32

Amend to read as follows:

3.31 The expert from Spain had no doubt that "dumping" had the meaning of any deliberate disposal at sea and that the London Dumping Convention had as its objective the prevention of pollution of the entire marine environment. Under the London Dumping Convention, and indeed under general international law, the sea is legally defined as a global unity which includes the waters, the living and the non-living resources, the seabed and the subsoil thereof. This is the way in which the legal
concept of the sea has been always construed in international law and this is, consequently, the way in which it is taken by the London Dumping Convention, as confirmed by the authorized legal opinions which were mentioned by the Spanish expert."

* TIMAGEVIS, International Control of Marine Pollution, N. York (Oceana) 1982 vol. I.

3.32 Another point was made by the Spanish expert with regard to marine scientific research in rebuttal of the OECD/NEA position set out in document LDC/LG 2/3/1. The expert considered that a research with economic, industrial or even military objectives cannot be considered as basic scientific research and therefore covered by the freedom of the high seas or the freedom of scientific research. Since the experimental phase had clear economic and industrial implications within its objectives, such investigations could not benefit of the special regime established by International Law for basic scientific research.