

**PROTOCOL FOR THE PREVENTION OF POLLUTION OF THE  
PACIFIC REGION BY DUMPING**

The Parties to the Protocol,

**Being** Parties to the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, adopted in Noumea, New Caledonia on the twenty-fourth day of November in the year one thousand nine hundred and eighty-six;

**Desiring** to make this Protocol consistent with the 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 as envisaged by Article 12 of that Protocol;

**Taking into account** relevant international agreements and actions, especially the United Nations Convention on the Law of the Sea, 1982 (UNCLOS), the Rio Declaration on Environment and Development and Agenda 21;

**Recognising** the danger posed to the marine environment by pollution caused by the dumping and incineration at sea of wastes or other matter;

**Considering** that they have a common interest to protect the Pacific region from this danger, taking into account the unique environmental quality of the region;

**Recognising** the special needs and limited resources of Small Island Developing States with regard to the promotion of international and regional co-operation concerning the prevention of marine pollution by dumping or incineration of wastes;

**Applying** a precautionary approach to environmental protection from dumping or incineration at sea of wastes or other matter, and taking into account the approach that the polluter should, in principle, bear the cost of pollution;

**Aware** of the need to promote access to and the transfer of environmentally sound technology, including clean production technology;

**Have agreed** as follows:

## **Article 1      DEFINITIONS**

For the purposes of this Protocol:

(1) “Convention” means the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region adopted in Noumea, New Caledonia on the twenty-fourth day of November in the year one thousand nine hundred and eighty-six;

(2) (a) “Dumping” means:

- (i) any deliberate disposal into the sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea;
- (ii) any deliberate disposal into the sea of vessels, aircraft, platforms or other man-made structures at sea;
- (iii) any storage of wastes or other matter in the seabed and the subsoil thereof from vessels, aircraft, platforms or other man-made structures at sea; and
- (iv) any abandonment or toppling at site of platforms or other man-made structures at sea, for the sole purpose of deliberate disposal.

(b) “Dumping” does not include:

- (i) the disposal into the sea of wastes or other matter incidental to, or derived from the normal operations of vessels, aircraft, platforms or other man-made structures at sea and their equipment, other than wastes or other matter transported by or to vessels, aircraft, platforms or other man-made structures at sea, operating for the purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such vessels, aircraft, platforms or other man-made structures;
- (ii) placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Protocol; and
- (iii) notwithstanding paragraph 2(a)(iv) abandonment in the sea of matter (e.g., cables, pipelines and marine research devices) placed for a purpose other than the mere disposal thereof.

(c) The disposal or storage of wastes or other matter directly arising from, or related to the exploration, exploitation and associated off-shore processing of seabed mineral resources is not covered by the provisions of this Protocol.

(3) “Incineration at sea” means the combustion on board a vessel, platform or other man-made structure at sea of wastes or other matter for the purpose of their deliberate disposal by thermal destruction. “Incineration at sea” does not include the incineration of wastes or other matter on board a vessel, platform, or other man-made structure at sea if such wastes or other matter were generated during the normal operation of that vessel, platform or other man-made structure at sea.

(4) “Organisation” means the Secretariat for the Pacific Regional Environment Programme.

(5) “Permit” means permission granted in advance and in accordance with this Protocol for the disposal of wastes or other matter at sea.

(6) “Sea” means all marine waters other than the internal waters of Member States, as well as the seabed and the subsoil thereof; it does not include sub-seabed repositories accessed only from land.

## **Article 2 GENERAL APPLICATION PROVISIONS**

(1) The area to which this Protocol applies (hereinafter referred to as the “Protocol Area”) shall be the Convention Area as defined in Article 2 of the Convention together with the continental shelf of a Party where it extends, in accordance with international law, outward beyond the Convention Area.

(2) Notwithstanding any other provision of this Protocol, this Protocol shall relate to internal waters only to the extent provided for in sub-paragraphs (a) and (b).

(a) Each Party shall at its discretion either apply the provisions of this Protocol or adopt other effective permitting and regulatory measures to control the deliberate disposal of wastes or other matter in marine internal waters where such disposal would be “dumping” or “incineration at sea” within the meaning of article 1, if conducted at sea.

(b) Each Party should provide the Organisation with information on legislation and institutional mechanisms regarding implementation, compliance and enforcement in marine internal waters. Parties should also use their best efforts to provide on a voluntary basis summary reports on the type and nature of the materials dumped in marine internal waters.

### **Article 3      GENERAL OBLIGATIONS**

(1) Consistent with their technical, economic and scientific capabilities, the Parties shall take all appropriate measures to effectively prevent, reduce and where practicable eliminate pollution in the Protocol Area by the dumping and incineration of wastes and other matter at sea.

(2) Dumping and incineration of wastes and other matter within the territorial sea and the exclusive economic zone or onto the continental shelf of a Party as defined in international law shall not be carried out without the express prior approval of that Party, which has the right to permit, regulate and control such activities taking fully into account the provisions of this Protocol, and after due consideration of the matter with other Parties which by reason of their geographical situation may be adversely affected thereby.

(3) National laws, regulations and measures adopted by the Parties shall be no less effective in preventing, reducing and where practicable eliminating pollution by dumping or incineration than the rules and procedures provided for in the 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972.

(4) When implementing the provisions of this Protocol, the Parties shall act so as to ensure that:

- (a) there is no direct or indirect transfer of the damage or likelihood of damage from one part of the environment to another; and
- (b) the nature of the pollution is not transformed from one type to another.

(5) In implementing this Protocol, Parties shall apply a precautionary approach to environmental protection from dumping of wastes or other matter whereby appropriate preventative measures are taken when there is reason to believe that wastes or other matter introduced into the marine environment are likely to cause harm even when there is no conclusive evidence to prove a causal relation between inputs and their effects.

(6) Taking into account the approach that the polluter should, in principle, bear the cost of pollution, each Party shall endeavour to promote practices whereby those it has authorised to engage in dumping or incineration at sea bear the cost of meeting the pollution prevention and control requirements for the authorised activities, having due regard to the public interest.

#### Article 4 DUMPING OF WASTES AND OTHER MATTER AND EXCEPTIONS

(1) Each Party shall establish and implement legislative and administrative arrangements to give effect to this Protocol.

(2) Parties shall ensure that the issuance of permits, and the permit conditions, comply with the provisions of Annexes I and II. The dumping of wastes or other matter listed in Annex I shall require a permit issued in accordance with this Protocol.

(3) Special attention shall be paid to opportunities to avoid dumping and to apply environmentally preferable alternatives.

(4) The Parties shall prohibit the following activities:

- (a) the dumping of wastes or other matter at sea, other than those listed in Annex I;
- (b) the incineration of wastes or other matter at sea; and
- (c) the exportation of wastes and other matter for the purpose of dumping or incineration at sea.

(5) The provisions of paragraph 4(a) and (b) shall not apply when it is necessary to secure the safety of human life or of vessels, aircraft, platforms or other man-made structures at sea in cases of *force majeure* caused by stress of weather, or in any case which constitutes a danger to human life or a real threat to vessels, aircraft, platforms or other man-made structures at sea, if dumping or incineration at sea appears to be the only way of averting the threat and if there is every probability that the damage consequent upon such dumping or incineration at sea will be less than would otherwise occur. Such dumping or incineration at sea shall be so conducted as to minimise the likelihood of damage to human or marine life and shall be reported forthwith to the Organisation.

(6) A Party may issue a permit as an exception to paragraph 4(a) and (b), in emergencies posing an unacceptable threat to human health, safety, or the marine environment and admitting of no other feasible solution. Before doing so the Party shall consult any other country or countries that are likely to be affected and the Organisation which, after consulting other Parties, and competent international organisations as appropriate, shall, in accordance with article 12(2)(e) promptly recommend to the Party the most appropriate procedures to adopt. The Party shall follow these recommendations to the maximum extent feasible consistent with the time within which action must be taken and with the general obligation to avoid damage to the marine environment and shall inform the Organisation of the action it takes. The Parties pledge themselves to assist one another in such situations.

(7) Any Party may waive its rights under paragraph 6 at the time of, or subsequent to ratification, acceptance or approval of, or accession to this Protocol.

(8) No provision of this Protocol shall be interpreted as preventing a Party from prohibiting, insofar as that Party is concerned, the dumping of wastes or other matter listed in Annex I. That Party shall notify the Organisation of any such prohibition.

## **Article 5      RESPONSIBILITIES OF DESIGNATED AUTHORITIES**

(1) Each Party shall designate an appropriate authority or authorities to:

- (a) issue permits in accordance with this Protocol;
- (b) keep records of the nature and quantities of all wastes or other matter for which dumping permits have been issued and where practicable the quantities actually dumped and the location, time and method of dumping; and
- (c) monitor individually, or in collaboration with other Parties and competent international organisations, the condition of the sea for the purposes of this Protocol.

(2) The appropriate authority or authorities of each Party shall issue the permits under paragraph 1 and in the emergency circumstances provided for in Article 4, in respect of the wastes or other matter intended for dumping or incineration at sea:

- (a) loaded in its territory; or
- (b) loaded onto vessels and aircraft registered in its territory or flying its flag when the loading occurs in the territory of a State not Party to this Protocol.

(3) In issuing permits under this Protocol the appropriate authority or authorities shall comply with Article 4 and Annex II together with such additional criteria, measures and requirements, as they may consider relevant.

(4) Each Party shall report to the Organisation, and where appropriate to the other Parties:

- (a) the information specified in paragraph 1(b) and (c), which shall be submitted annually;
- (b) any administrative and legislative measures taken to implement the provisions of this Protocol, including a summary of enforcement measures; and
- (c) any problems experienced in the application of the administrative and legislative measures, and any matter related to their effectiveness.

(5) The information referred to in paragraph 4(b) and (c) shall be submitted on a regular basis for evaluation by an appropriate subsidiary body determined by the Meeting of the Parties. This body shall regularly report to Meetings or Special Meetings of the Parties.

## **Article 6      IMPLEMENTATION AND ENFORCEMENT**

- (1) Each Party shall apply the measures required to implement this Protocol to all:
  - (a) vessels and aircraft registered in its territory or flying its flag;
  - (b) vessels and aircraft loading in its territory wastes or other matter which are to be dumped or incinerated at sea; and
  - (c) vessels, aircraft and fixed or floating platforms or other man-made structures believed to be engaged in dumping or incineration at sea in areas within which it is entitled to exercise jurisdiction in accordance with international law.
  
- (2) Each Party shall take in its territory appropriate measures in accordance with international law to prevent and if necessary punish conduct in contravention of the provisions of this Protocol.
  
- (3) The Parties agree to co-operate in the development of procedures for the effective application of this Protocol particularly on the high seas, including procedures for the reporting of vessels and aircraft observed dumping or incinerating at sea wastes or other matter in contravention of the Protocol.
  
- (4) This Protocol shall not apply to those vessels and aircraft entitled to sovereign immunity under international law. However, each Party shall ensure by the adoption of appropriate measures that such vessels and aircraft owned or operated by it act in a manner consistent with the object and purpose of this Protocol, and shall inform the Organisation accordingly.
  
- (5) A State may at the time it expresses its consent to be bound by this Protocol, or at any time thereafter, declare that it shall apply the provisions of this Protocol to its vessels and aircraft referred to in paragraph 4, recognising that only that State may enforce those provisions against its vessels and aircraft.

## **Article 7      COMPLIANCE PROCEDURES**

The Meeting of the Parties shall establish procedures and mechanisms necessary to assess and promote compliance with this Protocol. Such procedures and mechanisms shall be developed with a view to allowing for the full and open exchange of information in a constructive manner. Where appropriate, the Meeting of the Parties may provide for the provision of information, advice and assistance to countries which are Parties or non-Parties to the Convention.

## **Article 8      ADOPTION OF OTHER MEASURES**

Nothing in this Protocol shall affect the right of each Party to adopt more stringent measures in accordance with the principles of international law to prevent dumping or incineration of wastes or other matter at sea.

## **Article 9      REPORTING OF UNAUTHORISED DUMPING AND INCINERATION INCIDENTS**

Each Party undertakes to issue instructions to its maritime inspection vessels and aircraft and to other appropriate services to report to its authorities any incidents or conditions in the Protocol Area which give rise to suspicions that dumping or incineration at sea in contravention of the provisions of this Protocol has occurred or is about to occur. Parties shall, if they consider it appropriate, report accordingly to the Organisation and to any other Party concerned.

## **Article 10     TECHNICAL COOPERATION AND ASSISTANCE**

The Parties, in consultation with the Organisation, shall cooperate with a view to formulating and as far as practicable implementing programs of assistance for the prevention, reduction and where practicable elimination of pollution caused by dumping and incineration of wastes and other matter at sea, including the provision of:

- (a) training programs for scientific and technical personnel relating to research, monitoring and enforcement;
- (b) as appropriate, necessary equipment and facilities with a view to strengthening national capabilities;
- (c) advice on the implementation of this Protocol;
- (d) information and technical cooperation relating to the disposal and treatment of wastes and other measures to prevent, reduce and where practicable eliminate pollution caused by dumping and incineration at sea; and
- (e) access to and transfer of environmentally sound technologies and corresponding know-how, in particular to Small Island Developing States on favourable terms, including on concessional and preferential terms, as mutually agreed, taking into account the need to protect intellectual property rights as well as the special needs of Small Island Developing States.

## **Article 11      INSTITUTIONAL ARRANGEMENTS**

The Parties designate the Organisation to carry out the following functions:

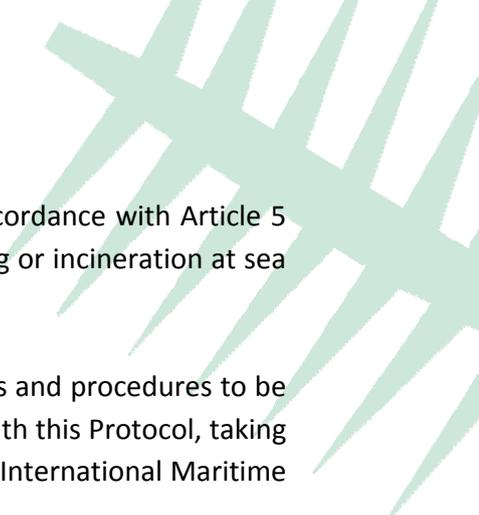
- (a) to assist the Parties, upon request, in the communication of reports in accordance with this Protocol;
- (b) to convey to the Parties concerned all notifications received by the Organisation in accordance with the provisions of this Protocol;
- (c) to transmit to the International Maritime Organization as the organisation responsible for the secretariat functions under the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 and the 1996 Protocol thereto, reports of dumping or incineration at sea and any other records and information submitted under this Protocol which the Organisation considers should be provided;
- (d) to foster cooperation with the International Maritime Organization with a view to promoting capacity building of Parties and non-Parties, and achieving a more effective implementation of this Protocol and use of resources;
- (e) to keep itself informed on evolving international standards and the results of research and investigation, and to advise Meetings of the Parties to this Protocol of such developments and any modification of the Annexes which may become desirable;
- (f) to provide policy and technical advice including guidelines taking into account that developed by the International Maritime Organization; and
- (g) to carry out other duties assigned to it by the Parties.

## **Article 12      MEETING OF THE PARTIES**

(1) Ordinary meetings of the Parties to this Protocol shall be held in conjunction with ordinary meetings of the Parties to the Convention held pursuant to Article 22 of the Convention. The Parties to this Protocol may also hold extraordinary meetings in conformity with Article 22 of the Convention.

(2) It shall be the function of the meetings of the Parties to this Protocol to:

- (a) keep under review the implementation of this Protocol, and to consider the efficacy of the measures adopted and the need for any other measures, in particular in the form of Annexes;

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- (b) study and consider the records of the permits issued in accordance with Article 5 and the emergency situation in Article 4 and of the dumping or incineration at sea which has taken place;
  - (c) review and amend as required any Annex to this Protocol;
  - (d) adopt as necessary guidelines for the preparation of records and procedures to be followed in submitting reports and records in accordance with this Protocol, taking into account the guidelines and procedures adopted by the International Maritime Organization;
  - (e) develop, adopt and implement in consultation with the Organisation and other competent international organisations procedures pursuant to Article 4 including basic criteria for determining emergency circumstances and procedures for consultative advice and the safe disposal, storage or destruction of matter in such circumstances;
  - (f) invite, as necessary, the appropriate scientific body or bodies to collaborate with and to advise the Parties and the Organisation on any scientific or technical aspects relevant to this Protocol, including particularly the content and applicability of the Annexes; and
  - (g) perform such other functions as may be appropriate for the implementation of this Protocol.

(3) The adoption of amendments to the Annexes to this Protocol pursuant to Article 25 of the Convention shall require a three-fourths majority vote of the Parties to this Protocol.

### **Article 13      RELATIONSHIP BETWEEN THIS PROTOCOL AND THE CONVENTION**

(1) The provisions of the Convention relating to any Protocol shall apply with respect to the present Protocol.

(2) The rules of procedures and the financial rules adopted pursuant to Article 22 of the Convention shall apply with respect to this Protocol, unless the Parties to this Protocol agree otherwise.

## ANNEX I

### WASTES OR OTHER MATTER THAT MAY BE CONSIDERED FOR DUMPING

1. Taking into consideration the provisions of Article 4 of this Protocol a Party may consider the following wastes or other matter for dumping:

- (a) dredged material;
- (b) sewage sludge;
- (c) fish waste, or material resulting from industrial fish processing operations;
- (d) vessels and platforms or other man-made structures at sea;
- (e) inert, inorganic geological material;
- (f) organic material of natural origin; and
- (g) bulky items primarily comprising iron, steel, concrete and similarly unarmful 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 practicable access to disposal options other than dumping.

2. The wastes or other matter referred to in paragraph 1(d) and (g) may be considered for dumping, provided that material capable of creating floating debris or otherwise contributing to pollution of the marine environment has been removed to the maximum extent and provided that the material dumped poses no serious obstacle to fishing or navigation.

3. Notwithstanding the above, materials listed in paragraphs 1(a)–(g) containing levels of radioactivity greater than *de minimis* (exempt) concentrations as defined by the International Atomic Energy Agency and adopted by Parties, shall not be considered eligible for dumping; provided further that within 25 years of 20 February 1994, and at each 25 year interval thereafter, Parties shall complete a scientific study relating to all radioactive wastes and other radioactive matter other than high level wastes or matter, taking into account such other factors as Parties consider appropriate and shall review the prohibition on dumping of such substances in accordance with the procedures set forth in article 25 of the Convention.

## ANNEX II

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

#### GENERAL

1. The acceptance of dumping under certain circumstances shall not remove the obligations under this Annex to make further attempts to reduce the necessity for dumping.

#### WASTE PREVENTION AUDIT

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

- (a) types, amounts and relative hazard of wastes generated;
- (b) details of the production process and the sources of wastes within that process; and
- (c) feasibility of the following waste reduction/prevention techniques -
  - (i) product reformulation;
  - (ii) clean production technologies;
  - (iii) process modification;
  - (iv) input substitution; and
  - (v) on site, close-loop recycling.

3. 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.

4. 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 relevant 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**

5. 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:

- (a) re-use;
- (b) off-site recycling;
- (c) destruction of hazardous constituents;
- (d) treatment to reduce or remove the hazardous constituents; and
- (e) disposal on land, into air and in water.

6. 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**

7. Parties shall consider whether an adequate scientific basis and sufficient knowledge of the composition and characteristics of the wastes or other matter proposed for dumping exist for assessing the impact of such material on the marine environment and human health. This information will be the basis for a decision to consider the practical availability of alternatives or 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.

8. Characterisation of the wastes and their constituents shall take into account:

- (a) Origin, total amount and average composition of matter;
- (b) Form (e.g. solid, sludge, liquid, or gaseous);
- (c) Properties: physical (e.g. solubility and density), chemical and biochemical (e.g. oxygen demand, nutrients) and biological (e.g. presence of viruses, bacteria, yeasts, parasites);
- (d) Persistence: physical, chemical and biological;
- (e) Toxicity;
- (f) Accumulation and biotransformation in biological materials or sediments;
- (g) Susceptibility to physical, chemical and biochemical changes and interaction in the aquatic environment with other dissolved organic and inorganic materials;
- (h) Probability of production of taints or other changes reducing marketability of resources (e.g. fish, shellfish).

## **ACTION LIST**

9. Each 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 bioaccumulative 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.

10. 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:

- (a) 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;
- (b) 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
- (c) 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**

11. Information required to select a dump-site shall include:

- (a) physical, chemical and biological characteristics of the water-column and the seabed;
- (b) location of amenities, values and other uses of the sea in the area under consideration;
- (c) assessment of the constituent fluxes associated with dumping in relation to existing fluxes of substances in the marine environment; and
- (d) economic and operational feasibility.

## **ASSESSMENT OF POTENTIAL EFFECTS**

12. 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.



13. 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.

14. An analysis of each disposal option should be considered in the light of a comparative assessment of the following concerns: human health risks, environment 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 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.

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

#### **MONITORING**

16. 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 programs have clearly defined objectives.

#### **PERMIT AND PERMIT CONDITIONS**

17. 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 minimised and the benefits maximised. Any permit issued shall contain data and information specifying:

- (a) the types and sources of materials to be dumped;
- (b) the location of the dump-site(s)
- (c) the method of dumping; and
- (d) monitoring and reporting requirements.

18. Permits should be reviewed at regular intervals, taking into account the results of monitoring and the objectives of monitoring programs. Review of monitoring results will indicate whether field programs 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.