Chapter 24. Solid Waste Disposal

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1. Introduction – the regulatory system

The disposal at sea of waste generated on land and loaded on board vessels for dumping is the object of long-standing global, and (in many areas) regional, systems of regulation. (These systems also cover, for completeness, dumping from aircraft and waste (other than operational discharges) from fixed installations in the sea). Such dumping must be distinguished from discharges into rivers and directly from land into the sea and emissions to air from land-based activities discussed in Chapter 20 (Land-based inputs).

1.1 The 1972 London Convention

The main provisions of the

(b)

(d) Vessels and platforms or other man-made structures at sea;

(e) Inert, inorganic geological material;

(f) Organic material of natural origin;

(g) Bulky items primarily comprising iron, steel, concrete and similar unharmful materials for which the concern is physical impact and limited to those circumstances, where such wastes are generated at locations, such as small islands with isolated communities, having no practicable

scientific research proposals to ensure protection of the marine environment consistent with the Convention and Protocol;

(e) For the purposes of the resolution, legitimate scientific research should be defined as those proposals that have been assessed and found acceptable under the assessment framework;

(f) Given the present state of knowledge, ocean fertilization activities other than legitimate scientific research should not be allowed. To this end, such other activities should be considered as contrary to the aims of the Convention and Protocol and should not currently qualify for any exemption from the definition of dumping in the Convention and the Protocol (LC-LP, 2008).

In 2010, the Contracting Parties to the 1972 London Convention and the 1996 London Protocol adopted the Assessment Framework for Scientific Research Involving Ocean Fertilization (LC-LP, 2010). In 2013, the Contracting Parties to the London Protocol adopted amendments to incorporate

provisions that regulate sea dumping. The dumping clauses are largely based on, or are more stringent than, the London Convention or London Protocol. (An overview of Contracting Parties to the London Protocol, London Convention and Regional Agreements that include management of sea dumping issues is set out in IMO 2014e). Most States are therefore Contracting Parties to an international agreement that relates to the management of sea dumping of solid waste or other matter. However, there remain some States, including some of the world's 20 largest economies, which are not party to any of these agreements. It is not known how far such States apply policies along the lines of those required by the 1972 London Convention or the 1996 London Protocol.

2. Amounts and nature of current dumping

Agreements in, and under, the 1972 London Convention and the 1996 London Protocol provide for annual reporting of the number of permits and the quantity and nature of the waste dumped under them. However, reporting under the Convention and the Protocol is not consistent. Figure 1 shows, for 1976 to 2010, the number of States that are Contracting States of the 1972 LCon1ventio,the

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disposal of waste at sea is now a minor impact on the marine environment and human uses of the sea, except for the dumping of dredged material.

3. Dumping of radioactive material

As noted above, the dumping of high-level radioactive waste has been prohibited under the 1972 London Convention since 1975, and dumping of medium- and low-level radioactive waste has been prohibited also under the 1996 London Protocol (subject to a review every 25 years) since 1994. The first reported sea disposal of radioactive waste took place in 1946 and the last authorized disposal appears to have been in 1993. During the 48-year history of sea disposal, 14 countries have used more than 80 sites to dispose of approximately 85,000 terabecquerels of radioactive waste. Some countries used this waste management option only for small quantities of radioactive waste. Two countries conducted only one disposal each and one country conducted only two disposals (IAEA, 1999).

In 1992, reports that the former Soviet Union had dumped large amounts of high-level radioactive wastes for over three decades in shallow waters in the Arctic Ocean caused widespread concern, especially in countries with Arctic coastlines. In 1992, a joint Norwegian-Russian Expert Group was established to investigate radioactive contamination due to dumped nuclear waste in the Barents and Kara Seas. The Russian Federation provided information on the dumping, some of which had taken place before 1975. It arranged exploratory cruises to the dumping areas, with the participation of the International Atomic Energy Agency. The results obtained during the cruises did not indicate any significant radioactive contamination at the dumping sites, although the levels near some dumped objects are slightly elevated compared with elsewhere (IAEA, 1995).

4. Dumped explosives and military chemicals

After both World Wars, States were faced with the problem of how to dispose of the

In other parts of the world, problems have arisen with dumped munitions. For example, in 2006 New Zealand had problems with munitions that had been dumped improperly at the end of the Second World War. An estimated 1,500 tons of munitions had ended up in relatively shallow water and were posing threats to fisheries and recreational uses of the sea. The New Zealand authorities concluded

UNEP responded to an urgent request from the authorities in the Puntland region of the Federal Republic of Somalia for help in assessing potential environmental damage. After an initial UNEP report, an inter-agency mission, which included FAO, UNDP, UNEP and

dumping agreements and which do not publish any national data. This category includes some of the world's largest economies.

Much work has been done to identify the locations where munitions have been dumped. However, some gaps in the knowledge remain on this subject. There are gaps in building capacities to help fishers and other users of the sea to draw on this knowledge, in order to reduce the risks to which they are subjected and to know how they should respond if they bring up dumped munitions in their nets. n 1.i.-1(s)2(a s)2.-0.0 1 3f(n)1

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