

LEGAL PROVISIONS CONCERNING THE HANDLING AND DISPOSAL OF RADIOACTIVE WASTE IN INTERNATIONAL AND NATIONAL LAW

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One of the current main problems of the peaceful use of nuclear energy and of radiation protection is the handling and disposal of radioactive waste. The solution of this problem is not only a technical and economic task but also a mission for the legislative bodies, international and national, to provide by legal instruments that damage to the general public and to radiation workers does not occur by the harmful effect of nuclear waste materials and that any danger caused by these substances should be compensated. This paper gives a short survey on the situation of international legislation (I) and of national legislation in countries where nuclear installations are in operation (II) concerning the radioactive waste handling and disposal (1).

I. INTERNATIONAL LAW

Until now there is no special international multilateral convention which governs exclusively the handling and disposal of radioactive waste. Nevertheless we find special rules on the disposal of nuclear waste in a number of conventions on the protection of the marine environment and of the high sea against pollutions (2):

- Convention on the High Sea (Geneva Convention) of April 29, 1958, esp. article 25 (3);
- Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) of December 29, 1972 (4);
- Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention) of March 22, 1974 (5);
- Convention for the Prevention of Marine Pollution from Land-based Sources (Paris Convention) of June 4, 1974 (6);
- Convention for the Protection of the Mediterranean Sea Against Pollution (Barcellona Convention) with Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft of February 16, 1976 (7).

In addition and in implementation of the mentioned London Convention of 1972 the International Atomic Energy Agency (IAEA) has published in 1974 Provisional definition and recommendations concerning radioactive wastes and other radioactive matter referred to in Annexes I and II to that convention (8) which has been revised in 1978 (9).

Taking in consideration the international conventions on the protection of the marine environment, especially the London Convention of 1972, the Organization for Economic Cooperation and Development (OECD) has set up within its Nuclear Energy Agency (NEA) a multilateral consultation and surveillance mechanism for the sea-dumping of radioactive waste by Decision of the OECD-Council of July 22, 1977 (10): In addition to this decision NEA has published in April 1979 Recommended Operational Procedures for Sea-Dumping of Radioactive Waste and Guidelines for Sea-Dumping Packages of Radioactive Waste.

It should be mentioned that the International Atomic Energy Agency in its Safety Series has enacted recommendations "Radioactive Waste Disposal into the Sea" and "Methods of Surveying and Monitoring Marine Radioactivity" (11).

Concerning the Antarctic Region the disposal of radioactive waste materials is absolutely prohibited by article V of the Antarctic-Treaty of December 1, 1959 (12). In 1975 the parties of that Treaty have recommended again that their governments continue to exert appropriate efforts to the end that no one disposes of nuclear waste in that Antarctic Treaty Area.

Sometimes one may read of proposals to dispose radioactive waste into the outer space. Until now we have no special rules - neither international nor national - on radioactive waste disposal in such a way. The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space Including the Moon and Other Celestial Bodies of January 27, 1967 (13) does not mention that problem. By art. IX of that Treaty in the exploration and use of outer space the State Parties shall be guided by the principle of co-operation and mutual assistance; they are obliged to conduct all their activities in outer space with due regard to the corresponding interests of all other Parties. There is until now no absolute prohibition of the radioactive waste disposal in outer space, but the States are responsible for such activities (article VI of the Outer Space Treaty; and Convention on International Liability for Damage Caused by Space Objects of March 29, 1972).

"Radioactive products and waste" are also subject of the international conventions on third party liability in the field of nuclear energy. By the Paris Convention of 1960 (art. 3) (14) and the Vienna Convention of 1963 (art. II) (15) the operator of a nuclear installation shall be liable in accordance with the provisions of these conventions for nuclear damage upon prove that the damage has been caused by a nuclear incident involving nuclear fuel or radioactive products or waste in his installation or coming from it.

For the nine Member States of the European Atomic Energy Community (EURATOM) the Treaty establishing that Community (16) contains a special provision (art. 37) that

each Member State shall provide the Commission with such general data relating to any plan for the disposal of radioactive waste in whatever form as will make it possible to determine whether the implementation of such plan is liable to result in the radioactive contamination of the water, soil or airspace of another Member State. By art. 3 of the EURATOM-Basic Safety Standards of June 1 1976 (17) each Member State shall make the reporting of the disposal of natural and artificial radioactive substances compulsory; each Member State may decide that such disposal activities shall be subject to prior authorization by the competent authority.

In addition to its recommendations concerning the waste disposal into the sea the IAEA has published some other guidelines for waste disposal (Safe handling of radionuclides, 1973 edition, disposal of radioactive wastes into fresh water; the management of radioactive wastes produced by radioisotope users and technical addendum; radioactive waste disposal into the ground; basic factors for the treatment and disposal of radioactive wastes; management of radioactive wastes at nuclear power plants; disposal of radioactive wastes into rivers, lakes and estuaries; management of wastes from the mining and milling of uranium and thorium ores) (18).

Occasionally waste disposal is subject of bilateral treaties, for instance the Technical Exchange and Co-operation Arrangement between the USAEC in the Federal Ministry for Research and Technology of F.R.G. of December 20, 1974 (19).

II. NATIONAL LEGISLATION

Provisions on the handling and disposal of radioactive waste have been enacted in many countries, particularly during the last years. It is not possible to give here a comprehensive survey, but the following legal provisions should be mentioned:

1. Austria: Radiation Protection Act, June 11, 1969; Radiation Protection Decree, Jan. 12, 1972;
2. Belgium: Radiation Protection Regulations, Febr. 28, 1963 (with amendments) (Sec. 33-37);
3. Denmark: Radiation Protection Regulations, Nov. 20, 1975, (Sec. 8);
4. France: Décret no. 66-450, June 20, 1966; décret no. 63-1228; Dec. 11, 1963, and décret no. 73-405, March 27, 1973; Arrêté, Nov. 7, 1979;
5. Germany, F.R.: Atomic Energy Act 1959/1976 (Sec. 9a); Radiation Protection Ordinance, Oct. 13, 1976 (Sec. 47);
6. Germany, D.R.: Radiation Protection Ordinance and First Executive Order, November 26, 1969; Guidelines on the centralized management of radioactive waste, March 28, 1974;
7. Israel: The Supervision of Supplies and Services (Construction and Operation of Nuclear Reactors) Order,

- No. 5735, Sept. 27, 1974;
8. Italy: Act No. 1860 of the Peaceful Use of Nuclear Energy, Dec. 31, 1962; Radiation Protection Regulations No. 185, Febr. 13, 1964 (Sec. 104-107);
 9. Luxembourg: Radiation Protection Act, March 25, 1963; Radiation Protection Regulations, Febr. 8, 1967;
 10. Netherlands: Decree on nuclear installations, fuel and ores, Sept. 4, 1969; Decree on radioactive substances, Sept. 10, 1969;
 11. Switzerland: Atomic Energy Act, Dec. 23, 1959; Revision of the Atomic Energy Act, Oct. 6, 1978; Radiation Protection Ordinance, June 30, 1976; Decree on the compilation and delivery of radioactive wastes, March 18, 1977;
 12. Spain: Nuclear Energy Act, April 29, 1964;
 13. United Kingdom: Radioactive Substances Act, June 2, 1960 (Sec. 6-10);
 14. USA: USNRC Regulations, 10 CFR Part 20 (Sec. 20.301-20.305).

REFERENCES

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3. United Nations Treaty Series (UNTS) 450, p. 11, 169.
4. IAEA/INFCIRC/205.
5. International Legal Materials (ILM) 1974, p. 546.
6. Official Journal (OJ) of the European Communities 1975, No. L/194/6; ILM 1974, p. 352.
7. OJ of the European Communities 1977, No. L 240/3.
8. IAEA/INFCIRC/205/Add. 1.
9. IAEA/INFCIRC/205/Add. 1/Rev. 1.
10. OECD-Doc. C (77) 115 Final; Nuclear Law Bulletin No.20 (1977), p. 37; cf. P. Strohl, in: AIDN/INLA, Nuclear Inter Jura '77, Florence 1977, p. 344.
11. IAEA Safety Series No. 5 (1961) and 11 (1965).
12. UNTS 402, p. 71.
13. UNTS 610, p. 205.
14. Bischof/Goldschmidt/Greulich, Internationale Atomhaftungskonventionen, Textsammlung, Göttingen 1964, p. 131.
15. Bischof/Goldschmidt/Greulich (Fn. 14), p. 13.
16. United Kingdom Treaty Series No. 17 (1979).
17. OJ of the European Communities 1976, No. 187/1.
18. IAEA-Safety Series Nos. 1, 10, 12, 15, 19, 24, 28, 36, 44.
19. Bundesgesetzblatt 1975 II 269.