

A code of practice on the international transboundary movement of radioactive waste

Countries adopt a global response to the alleged "dumping" of radioactive waste

by Odette Jankowitsch

Public concern in recent years has frequently acted as initiator of national, governmental, and international decision-making. Difficulties, however, have sometimes arisen in articulating this public concern, channelling it into a positive force, and finding an appropriate answer.

In June 1988, the Secretary General of the Organization of African Unity (OAU) wrote to IAEA Director General Hans Blix:

"I am animated by circumstance of a grave nature and concern to me and the African Continent in particular, and of which I want to call your attention in your capacity as Director General of the IAEA", the Secretary General's letter said. The matter addressed was "the practice to dispose of nuclear and industrial wastes in African countries". The letter noted that "several areas of co-operation exist between the OAU and many relevant international organizations that address themselves to environmental matters. Yours is one such organization". The action requested from the Director General was "intervention and support at all international fora where this issue may come up for discussion", and, "as a matter of extreme urgency, an international alarm on this matter in order thereby to forestall future practice".

With his letter, the Secretary General of the OAU also transmitted to the Agency the resolution adopted by the African Heads of State and Government at their summit in 1988. It *inter alia* requested the OAU in "close collaboration with the Director General of the IAEA" "to assist African countries to establish appropriate mechanisms for monitoring and control of the movement and disposal of nuclear and industrial wastes in Africa".

Need for an international code

The Director General circulated the text of the OAU resolution and the letter of its Secretary General to all Member States of the Agency; at the request of Nigeria, the resolution was also a subject of discussion at the June 1988 session of the IAEA Board of Governors. A few months later, the IAEA General Conference at its 32nd regular session in September 1988 adopted by consensus a resolution initiated by the African Group entitled "Dumping of Nuclear Wastes". It requested the IAEA Director General "to establish a representative technical working group of experts with the objective of elaborating an internationally agreed code of practice for international transactions involving nuclear wastes based on, *inter alia*, a review of current national and international laws and regulations on waste disposal". It also requested "each Member State to take necessary measures to ensure that its international nuclear waste transactions take place in accordance with appropriate requirements of the exporting, importing, and transit States".

In the course of the general debate preceding formulation and adoption of that General Conference resolution, Member States from all regions shared the concern expressed by the African countries and their call for a code of conduct, an international agreement, or some form of internationally accepted guidelines. It was indeed clear from the origin of the resolution and the discussions held on its aims and purposes that Member States felt it necessary to elaborate an instrument to guide States in their international transactions of radioactive wastes and in the development of their national laws and regulations.

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The call for help to its environment and for a ban on all illegal waste disposal on its territories was also addressed by African countries to policy-making organs of other intergovernmental organizations. For example, it was made at the meeting of the Zone of Peace and Co-operation of the South Atlantic (Rio de Janeiro, August 1988), the Foreign Ministers Conference of the Non-Aligned Movement (Nicosia, September 1988), and the 43rd Session of the UN General Assembly (New York, October 1988).

The international group of experts

Pursuant to the General Conference resolution, the IAEA's Director General set up an international group of experts from 20 Member States, nominated by their Governments. They were entrusted with elaborating, with a sense of urgency, a code of practice that would achieve the objective set by the General Conference. In setting up the expert group and embarking upon preparatory work as requested by the General Conference, the IAEA Secretariat had to make sure that these experts would be familiar not only with the technical subject of radioactive waste management, but above all with regulatory structures and legal regimes in force, and with the possible international legal and political implications of a Code that would serve as the basic guidelines to the international community in this field. At the same time, a survey of national laws had to be conducted.

The expert group that convened for its first meeting in May 1989 was composed of some 20 legal experts, heads and representatives of national offices for radiation protection and radioactive waste management, nuclear regulatory authorities, and advisers to diplomatic missions on nuclear matters. Twenty countries with different nuclear programmes and different legal systems, as well as the Commission of the European Communities (CEC), the Nuclear Energy Agency of the Organization for Economic Co-operation and Development (NEA/OECD), the United Nations Environment Programme (UNEP), and the International Maritime Organization (IMO) were represented. The expert group elected as Chairman Mr David Smythe, Director General of Fuel Cycle and Materials Regulation of the Canadian Atomic Energy Control Board, and at its second meeting completed its task and adopted the Code of Practice by consensus.

Current national law on radioactive waste

Pursuant to the General Conference resolution, the elaboration of a Code of Practice was to be "based on, *inter alia*, a review of current national and international laws and regulations on waste disposal". The expert group at its first meeting requested the IAEA Secretariat to survey Member States with a view to identify legislation related to international transactions involving radio-

active wastes, and relevant principles of general application that should be considered by the experts.

The Agency obtained the texts of laws, national codes, guidelines and regulations from some 40 Member States. A review of the material showed that radioactive waste legislation, where it existed, was of recent origin and frequently amended to reflect technological progress and increased environmental concerns. Some countries informed the Agency that they had not enacted any laws on waste management because there was no radioactive waste generated by nuclear power installations; low-level radioactive waste from hospitals and research institutions was either shipped to another country on the basis of bilateral agreements, or stored in an appropriate location in accordance with safety rules established by the institutions concerned. Some countries had established national guidelines on radioactive waste management and control.

The main general principles found in reviewed legislation is that of protection of man and the environment, i.e. the safety of all operations concerning radioactive wastes. Legislation in some countries explicitly states the objective of minimizing production of wastes, as well as of reducing the volume of such wastes. Principles regarding liability (of the operator, or generator) are also contained in some of the laws. Provisions regarding dumping wastes at sea have been enacted in several countries in addition to norms on land disposal. Other countries reported that they were Parties to the London Dumping Convention of 1972, or relevant regional conventions regarding dumping at sea or ocean pollution in general.

Only very few instances were found of specific provisions that relate directly to the transboundary transfer of radioactive waste. However, regardless of whether specific norms on transboundary movements of radioactive waste exist, a number of countries prohibit the import of such wastes from abroad and their storage or disposal on their national territories. Such prohibition is usually formulated in an indirect manner, i.e. the right to dispose of or store only wastes that originate in the country.

International instruments

As to international instruments, it was found that no code, guide or convention on international transboundary movement of radioactive waste existed. On the other hand, considerable international effort had been under way for some time to establish norms and procedures for the international movement of chemical, industrial, and other hazardous wastes. In 1983, in response to a chemical industry accident with serious environmental consequences (in Seveso, Italy), both the OECD and the CEC prepared texts to establish what was intended to become an "international system" for the effective control of transfrontier movements of hazardous wastes. In both instances the scope of the

instrument (OECD Draft International Agreement on Control of Transfrontier Movement of Hazardous Wastes and EC Directive) specifically excluded radioactive waste. UNEP's initiative in 1987 for a "Global Convention on the Control of Transboundary Movements of Hazardous Waste", based to some extent on the OECD draft but with universal scope, was given priority. The CEC adopted a Directive on hazardous waste movement; the OECD's effort was no longer pursued separately.*

The Global Convention, elaborated under the auspices of UNEP, was signed on 22 March 1989 in Basel and now awaits ratification by at least 20 States in order to enter into force. Radioactive wastes are specifically excluded from the scope of the Convention (in Article 1, paragraph 3).

The Convention was brought to the attention of the IAEA by a resolution of the Conference of Plenipotentiaries convened by UNEP, with a view to ensure that its provisions would be taken into account during the elaboration of the IAEA Code of Practice governing radioactive wastes.

In 1988 the CEC began preparatory work for a separate Directive on the transport activities related to radioactive wastes within the Community.** This followed an initiative of the European Parliament after reports of alleged illicit movements of radioactive wastes. That Directive is now being finalized and awaiting adoption. In this context, mention should also be made of the (Fourth) Convention between the European Economic Community (EEC) and 68 African, Caribbean, and Pacific (ACP) countries. This was signed at Lomé on 15 December 1989 and provides:*** "the Community shall prohibit all direct or indirect export of such [radioactive] waste to the ACP States ... without prejudice to specific international undertakings to which the Contracting Parties have subscribed, or may subscribe in the future ... within the competent international fora". As to the definitions of radioactive wastes, the Convention refers to "those which will be laid down in the framework of the IAEA".

Main provisions of the international Code of Practice

The Code of Practice on the International Transboundary Movement of Radioactive Waste was adopted in

September 1990 by the IAEA General Conference at its 34th regular session (GC(XXXIV)/RES/530).

It is a concise document, limited to basic principles and applies specifically to the international movement of radioactive waste. (For the full text of the Code, see the colour insert in this edition of the IAEA Bulletin.) Such waste is defined as "any material that contains or is contaminated with radionuclides at concentrations or radioactivity levels greater than the exempt quantities established by the competent authorities and for which no use is foreseen"

The Code is advisory. Its aim is "to serve as guidelines to States for, among others, the development and harmonization of policies and laws on the international transboundary movement of radioactive waste". The Code is in conformity with the relevant principles and norms of international law and relies on existing international standards for the safe transport of radioactive material and the physical protection of nuclear material, and the standards for basic nuclear safety and radiation protection and radioactive waste management. In essence, it is founded on the existing body of rules, safety standards, and norms, most of which have been elaborated by the Agency and adopted by consensus, and are adhered to by Member States. There was no need to create new norms in this field.

The Code's main provisions emphasize:

- **Safety first.** The first principle recalled by the Code is that every State should ensure that radioactive waste within its territory is safely managed and disposed of to ensure the protection of human health and the environment. In the international transboundary movement, every State should ensure that such movement is undertaken in a manner consistent with international safety standards.

In short, radioactive waste should only be transported from one system of controls to another. In keeping with this principle, the Code provides that if a transfer cannot be completed in conformity with the Code, and no alternative safe arrangements can be made, it should be permitted that radioactive waste previously transferred out is returned to its origin. Primary responsibility rests with the sending State.

- **Consent.** The Code recalls the principle that it is the sovereign right of every State to prohibit the movement of radioactive waste into, from, or through its territory. The Code establishes that the international transboundary movement of radioactive waste should only take place with the prior notification and consent of the sending, receiving, and transit States.

- **Regulatory structure.** Movement of radioactive waste requires strict controls. Every State involved in the transboundary movement of radioactive waste, whether sending, receiving, or providing transit, should have a regulatory authority and develop procedures, laws, and regulations required to exert control over such movement. States should also introduce into their laws provision for liability and compensation for damage that could arise from the international movement of waste.

* Council Directive 84/631/EEC of 6 December 1984 on the Supervision and Control within the European Community of the Transfrontier Shipment of Hazardous Waste, as amended 1986. O.J. L326 of 13.12.86 and O.J. L181 of 04.07.1986.

** CEC: COM (90)328 of 17 July 1990.

***Article 39, paragraphs 1 and 3. See also "Joint declaration (Annex VIII) on movements of hazardous waste or radioactive waste" in which the Parties to the Lomé Convention affirm, *inter alia*, "their determination to play an active part in the work being done in the IAEA to produce an internationally approved code of good practice".

● *Technical capacity.* Proper administrative and technical capacity and regulatory structure is the precondition for any receipt of radioactive waste. The Code addresses this principle both to the receiving and to the sending State for any agreed movement of radioactive waste.

● *International co-operation.* States should co-operate at the bilateral, regional, and international levels in preventing any international transboundary movement of radioactive waste that is not in conformity with the Code. The IAEA should continue to provide advice and assistance on all aspects of radioactive waste management and disposal, with particular regard to the needs of developing countries.

Stronger international network

Within a brief period of time, the IAEA was able to provide satisfactory answer to an issue of grave public concern: despite the fact that no illegal disposal of radioactive waste had been found, the possibility of unauthorized movement and "dumping" of such waste, notably in the territories of developing countries, had to be addressed.

As a preventive measure, a wide consensus had to be established on what constitutes "good practice" in necessary transboundary movements of radioactive waste. The Code provides States which do not have the technical capacity to safely manage and dispose of radioactive waste, e.g. from medical uses, with the flexibility to export such waste to countries that have the required capacity.

Even in the absence of specific legislation on radioactive waste movement in many countries, it was possible to adopt the Code because of the existence of an estab-

lished network of IAEA regulations and standards that have previously been adopted and are adhered to by the international community. Adoption of the Code was also possible because of the Member States' political will to co-operate to curb illicit traffic.

The Code of Practice voluntarily adhered to by the Member States of the Agency now constitutes a further element of the "international nuclear energy order" which contains both legally binding and non-binding principles and norms.*

The decision of the Agency to opt at this stage for a code and not for a convention (while leaving the door open for possible future work on a legally binding agreement) was motivated by several reasons: first, many States, notably developing countries, do not have as yet national laws on this matter; second, the lengthy process of concluding a convention would not have permitted the prompt action expected by the Member States; and third, Agency experience has revealed that codes that reflect genuine consensus are also effective mechanisms for regulating State practice even though they are not legally binding.

The Code of Practice on the International Transboundary Movement of Radioactive Waste is now a valid instrument, an effective mechanism for use in State practice. Its real value, however, will depend on the degree of compliance to be achieved.

* The quoted phrase is from "The Role of the IAEA in the Development of International Law", by Hans Blix, *Nordic Journal of International Law*, Vol. 58, (1989) p. 238.