IAEA Technical Standards Setting

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20-21 March 2009

(Summary Version)

Background

Under Article III.A.1 of its Statute, the IAEA is authorized "to encourage and assist research on, and development and practical application of, atomic energy for peaceful uses throughout the world". Under Article III.A.3 of its Statute, the IAEA is authorized "to foster the exchange of scientific and technical information on peaceful uses of atomic energy".

More specifically, under Article III.A.6 of its Statute, the IAEA is authorized to "establish or adopt, in consultation and, where appropriate, in collaboration with the competent organs of the United Nations and with the specialized agencies concerned, standards of safety for protection of health and minimization of danger to life and property".

There is no explicit reference in the Agency's Statute for technical standards setting in other areas of the Agency's work in particular in the areas of nuclear security and nuclear energy.

This paper does not cover the Agency's work in the areas of nuclear sciences and applications, safeguards or liability for nuclear damage as these are not related to technical standards setting as such, the former focussing largely on scientific research and the latter two being mostly based on bilateral agreements between the Agency and the State concerned and multilateral treaties.

Legal Process for their Formation

Technical standards in the area of nuclear safety are published in the IAEA's Safety Standards Series. The categories of safety standards in the Safety Standards Series are, in hierarchical order, Safety Fundamentals, Safety Requirements and Safety Guides.

Safety Fundamentals and Safety Requirements are approved by the Agency's Board of Governors. Safety Guides are issued by the Director General of the IAEA.

The Agency's safety standards cover five areas: nuclear safety, radiation safety, transport safety, waste safety and general safety to include legal and governmental infrastructure for safety, emergency preparedness and response, and quality assurance.

All safety standards are prepared and reviewed in accordance with a uniform process. To this end, different Committees have been set up in each of the aforementioned five areas to assist the Agency Secretariat in preparing and reviewing the safety standards.[1]

At the outset membership in these Committees was limited and the selection of members was made by the Director General or Deputy Director General of the IAEA strictly based on the technical competence of the individuals.

In the meantime, and in order to promote broader adherence to the safety standards, all Member States are invited to nominate members in these Committees. Because of varied interest in different subject areas, there are different numbers of members in the different Committees[2]. Relevant intergovernmental and, depending on the subject matter, non-governmental organisations are invited as observers.

Membership in the overview body for safety standards, namely the Commission on Safety Standards (CSS) is still limited to 28 members selected on the basis of their technical competence.

The deliberations in the Committees are in English only.

Each Committee is assisted by a Scientific Secretary assigned from the Agency's staff and a Technical Officer appointed from the Agency's staff for the preparation of each standard.

The adoption of safety standards in the Committees is on the basis of consensus. Certain safety standards are co-sponsored by invited intergovernmental organisations (see above).

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[1] These are: The Commission on Safety Standards (CSS), the Nuclear Safety Standards Committee (NUSSC), the Radiation Safety Standards Committee (RASSC), the Waste Safety Standards Committee (WASSC) and the Transport Safety Standards Committee (TRANSSC).

Costs associated with membership in the Committees are borne by the Member State or organisation concerned. Lawyers are not involved in the process. To date, more than 200 technical standards in the area of nuclear safety have been developed by the IAEA.

While the process for setting technical standards in the area of nuclear safety is rather elaborate, this is for various reasons not the case with regard to the formulation of documents in other areas of the Agency's work in particular in the areas of nuclear security and nuclear energy.

Documents in these areas usually take the form of recommendations and are developed either by informal meetings of technical experts selected by the Department concerned or by open-ended working groups established by the Secretariat, i.e. working groups that are open for representation by all Member States. Documents in these areas are generally not submitted to the Agency's Board of Governors for approval.

Multilateral agreements or other non-binding international instruments such as codes of conduct are also drafted initially by open-ended working groups of legal and technical experts. Subsequently, the treaty is endorsed by the Agency's Board of Governors and then submitted to a Diplomatic Conference for adoption.

So far, 14 multilateral agreements and two codes of conduct have been adopted under the Agency's auspices in this fashion.

They are in the area of nuclear safety: the Convention on Early Notification of a Nuclear Accident (INFCIRC/335) and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (INFCIRC/336) of 1986, the Convention on Nuclear Safety (INFCIRC/449) of 1994, the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (INFCIRC/546) of 1997, the Code of Conduct on the Safety and Security of Radioactive Sources (INFCIRC/663) of 2003 and the Code of Conduct on the Safety of Research Reactors (GC(48)/7) of 2005.

In the area of nuclear security: the Convention on the Physical Protection of Nuclear Material (INFCIRC/274/Rev.1) of 1979 and the Amendment to the Convention on the Physical Protection of Nuclear Material (GOV/INF/2005/10-GC(49)/INF/6) of 2005.

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[2] The Transport Safety Standards Committee (TRANSSC), for example, has more than 120 members, whereas the other Committees have a membership of about 35.

In the area of liability for nuclear damage: the Vienna Convention on Civil Liability for Nuclear Damage (INFCIRC/500) of 1963, the Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention (INFCIRC/402) of 1988, the Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage (INFCIRC/566) of 1997 and the Convention on Supplementary Compensation for Nuclear Damage (INFCIRC/567) of 1997.

And in the area of technical co-operation: The Asian Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (RCA), established in 1972 (INFCIRC/167); the African Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (AFRA), established in 1990 (INFCIRC/377); the Co-operation Agreement for the Promotion of Nuclear Science and Technology in Latin America and the Caribbean (ARCAL), established in 1984, (INFCIRC/582) and the Co-operative Agreement for Arab States in Asia for Research, Development and Training related to Nuclear Science and Technology (ARASIA), established in 2002 (INFCIRC/613).

In the area of nuclear safety, these agreements and codes of conduct are based on the relevant technical standards described above.

Implementation

The Agency's technical standards in the area of nuclear safety and the recommendations documents in the areas of nuclear security and nuclear energy are not legally binding on Member States but may be adopted by them, at their own discretion, for use in national legislation or regulations in respect of their own activities.

Certain technical standards and recommendations, are, however, made binding through inclusion in bilateral or multilateral agreements.

The IAEA Regulations for the Safe Transport of Radioactive Material, for example are being used as the international authoritative standards for the UN Recommendations for Safe Transport of Dangerous Goods and the Modal Regulatory Requirements of ICAO and IMO as well as for regional and local agreements like ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road), RID (Regulations Concerning the International Carriage of Dangerous Goods by Rail) and MERCOSUR/MERCOSUL (Agreement of Partial Reach to Facilitate the Transport of Dangerous Goods).

Similarly, the IAEA's recommendations regarding the Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Rev.4) are being used on a regular basis in bilateral agreements between Member States.

Under Article III.A.6 of the Statute, the Agency's technical standards in the area of nuclear safety, are binding on the Agency for application in relation to its own operations and to operations assisted by the Agency, for example under its technical co-operation programme.

Similarly, under Articles IX and XI of the Statute, for Agency-assisted projects or for its own operations, the relevant recommendations in the nuclear security area, in particular those specified in INFCIRC/225/Rev.4 (The Physical Protection of Nuclear Material and Nuclear Facilities), need to be followed.

The implementation of technical standards and recommendations is also subject to international peer review missions and advisory services. These missions and services result in non-binding recommendations by the Agency to the Member State concerned.

The Agency also maintains a comprehensive legislative assistance programme to help implement the technical standards and recommendations as well as the multilateral treaties for which the IAEA is depositary, at the national level. So far, more than 100 Member States have received assistance in drafting national legislation under this programme.

Emergency Assistance and Response

Following the Chernobyl accident in 1986, two conventions in the area of emergency assistance and response were adopted under the auspices of the IAEA. These are the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (see above).

These conventions are complemented by a system of practical arrangements and mechanisms such as the Emergency Notification and Assistance Technical Manual (ENATOM 2004), the Emergency Response Network Manual (ERNET 2002), the Joint Radiation Emergency Management Plan of the International Organizations (the Joint Plan) and through biennial meetings of National Competent Authorities identified under the Conventions.

Emergency assistance and response by the IAEA is provided within the framework of the aforementioned system.

Conclusion

While the process for setting technical standards in the area of nuclear safety is rather elaborate, this is for various reasons not the case with regard to the formulation of documents in other areas of the Agency's work in particular in the areas of nuclear security and nuclear energy.

The development of multilateral agreements under IAEA auspices follows standard open-ended drafting and adoption practice.

In practical terms, adherence to and implementation of legally non-binding instruments such as technical standards or codes of conduct has been a successful undertaking, sometimes even more successful than adherence to legally binding multilateral agreements.

To give one example, so far 94 States have made a political commitment to implement the Code of Conduct on the Safety and Security of Radioactive Sources. This Code was adopted by the Agency's General Conference in 2003. During the same period, only 10 States have expressed their consent to be legally bound by the Convention on Nuclear Safety, a convention that deals with the safety of nuclear power plants and only 47 States have adhered to the foremost multilateral agreement in the area of nuclear security, the Convention on the Physical Protection of Nuclear Material.