ARTICLES

A Code of Conduct on the Safety of Radiation Sources and the Security of Radioactive Materials

A New Approach to the Normative Control of a Nuclear Risk?

By Katia Boustany*

Enshrined in its Statute,[1] the normative activity of the IAEA has resulted in the production of a large number of documents, of variable style, on different aspects of nuclear safety. Although all these instruments belong in the category of "*soft law*", they are classified by the Agency according to its own "normative hierarchy", essentially designed to differentiate those that are subject to the approval of the Board of Governors which, once received, places them at the top of the pyramid.

In 1996 the IAEA published, in its "Safety Fundamentals" series, a document entitled "Radiation protection and the safety of radiation sources" which, like all those in this collection, had been approved by the Board of Governors. Hence, the production of a draft Code of Conduct on "The safety of radiation sources and the security of radioactive materials" raises the question as to what such a tool could add to the normative setting.

In fact, by its very nature, a Code of Conduct is also an instrument of *soft law*; however it is worthwhile looking into the background to this particular code so that we may identify the intention underlying its inception.

Following the International Conference in Dijon[2] on "The Safety of Radiation Sources and the Security of Radioactive Materials", a report on its main conclusions was presented, a few days later, to

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1. Article III, A.6 of the Statute of the IAEA.

2. The Conference took place from 14 to 18 September 1998 and was organised jointly by the European Commission, the International Atomic Energy Agency, the International Criminal Police Organisation (INTERPOL) and the World Customs Organisation. The proceedings of the Conference were published under the title: *Safety of Radiation Sources and the Security of Radioactive Materials, Proceedings of a Conference*, Dijon, France, 14-18 September 1998, IAEA, Proceedings series, Vienna 1999.

the IAEA General Conference.[3] The General Conference then went on to adopt a Resolution[4] in which it requested

> the Secretariat to prepare for the consideration of the Board of Governors a report on i) how national systems for ensuring the safety of radiation sources and the security of radioactive materials can be operated at a high level of effectiveness and ii) whether international undertakings concerned with the effective operation of such systems and attracting broad adherence could be formulated.

In response to this request, the Secretariat of the Agency drew up a report based upon the opinion of a group of senior experts[5] which was submitted to the Board of Governors at its March 1999 meeting. In the light of the conclusions and recommendations set out in this report,[6] the Board requested the Secretariat to prepare an action plan taking into account both the report itself and the Board's discussion on this issue, and requested the Director-General of the Agency

> to initiate exploratory discussions relating to an international undertaking in the area of the safety and security of radiation sources, it being understood that the international undertaking – which might take the form of a convention or some other type of instrument – should provide for a clear commitment by and attract the broad adherence of States.[7]

The draft action plan was first drawn up by the Secretariat with the help of a group of consultants,[8] then endorsed by a technical committee,[9] and finally submitted in September 1999 to the Board of Governors and to the General Conference. As regards the question of an international undertaking, the document states:[10]

> Independently of its legal form, such an undertaking should be seen as part of a programme for strengthening the resolve of States to establish appropriate regulatory infrastructures for the

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3. Forty-second regular session, 21-25 September 1998.

4. IAEA, GC(42)/RES/12, 25 September 1998.

5. This group of experts met, together with representatives of the Division of Nuclear Safety responsible for these matters, first in Buenos Aires, from 7 to 10 December 1998, at the headquarters of the Argentine National Atomic Energy Commission, and secondly, from 27 to 29 January, in Washington DC at the headquarters of the United States Nuclear Regulatory Commission (IAEA, GOV/1999/16, 25 February 1999).

6. IAEA, GOV/1999/16, 25 February 1999, attachment.

7. IAEA, GOV/1999/16, 25 February 1999, paragraph 6(d).

8. This group of consultants met in Prague from 25 to 28 May 1999 (GOV/1999/46 – GC (43)/10, 6 September 1999, paragraph 8).

9. The committee consisted of senior experts from the following countries: Australia, Canada, the Czech Republic, China, Egypt, Finland, France, Germany, Iceland, India, Israel, Spain, Turkey, Ukraine, the United Kingdom and the United States of America; it was chaired by Mrs. Mary Clark, of the United States Environmental Protection Agency, and met in Vienna from 12 to 14 July 1999. It was also attended by an observer from the European Commission (GOV/1999/46-GC(43)/10, 6 September 1999, paragraph 8).

10. GOV/1999/46-GC(43)/10, attachment 2, p. 14 "International undertakings".

safety of radiation sources and the security of radioactive materials, the existence of such infrastructures being a fundamental presumption of the BSS.[11]

The document further proposes, as an action to be undertaken in this connection, the organisation of a meeting of technical and legal experts to discuss, in particular, the content and form of such an international undertaking. As a matter of fact, the first such meeting was held at the headquarters of the Agency in Vienna from 6 to 10 March 2000,[12] and will be addressed herein.

One observation should be made immediately: even though the attitudes of the inter-governmental bodies of the IAEA – the Board of Governors and the General Conference – reflect a continuing reluctance to consider resolutely the option of a conventional instrument in the field under consideration, it seems to us that the Secretariat of the Agency is hidebound in its perception of the normative process that is linked exclusively to action by States: adopting adequate legislation, setting up a regulatory body, instituting a licensing and inspection regime, introducing "national arrangements" for the proper management and disposal of "disused" sources and for the prompt reporting and the recording of missing sources,[13] to mention but a few. Now, essentially all these components of a system for the control of radiation sources are already set forth in the International Basic Safety Standards, in the above-mentioned document "*Radiation Protection and the Safety of Radiation Sources*", in the "Safety Fundamentals" series, and in other documents establishing safety standards. Indeed some of them are invariably mentioned in the preamble to the successive drafts of the Code of Conduct.

Moreover, the model project devoted to "Upgrading Radiation Protection Infrastructure"[14] is intended precisely to pave the way for the establishment of national systems which meet the administrative requirements of the BSS. In this respect, the IAEA has deployed various forms of action to assist the States participating in this project to achieve this objective.

In this dual context, we do not believe that the draft Code of Conduct, in its present form, can provide any new answers to the problems raised by the question of the safety of radiation sources and the security of radioactive materials,[15] even if it could have the merit of consolidating into a single document the different parts – hitherto scattered – of an adequate legal and regulatory system.

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11. BSS refers to the *International Basic Safety Standards for Protection Against Ionising Radiation and for the Safety of Radiation Sources*, Safety Collection No. 115, IAEA, Vienna, 1997.

12. The experts came from the following countries: Argentina, Australia, Austria, Canada, Cuba, Egypt, Finland, France, Germany, India, the Republic of Korea, the Russian Federation, the Slovak Republic, Sweden and the United States of America; the meeting was also attended by representatives of the European Commission, the OECD Nuclear Energy Agency and the Pan-American Health Organisation – PAHO.

13. GOV/1999/46 – GC(43)/10, attachment 2, pp. 13-14 "International Undertakings"; see also, in the same context, the conclusions and recommendations of the report mentioned previously: GOV/1999/16, 26 February 1999, paragraph 5.

14. Fifty-one States from Africa, East Asia and the Pacific, West Asia, Europe and Latin America are participating in this model project and thereby receive assistance from the Agency: see the information sheet accessible on the Agency's Internet site: http://www.iaea.org/ns/rasanet/projects/modelproject/modelproj.htm.

15. It is not our intention here to list the different (known) accident situations that underlie the concerns resulting in the series of approaches, meetings and discussions of which the principal outcome was to acknowledge the necessity for an international undertaking on the safety of radiation sources and the security of radioactive materials; for that we refer the reader to the above-mentioned Proceedings of the

In fact, the pattern of reflection which focuses upon the normative function of the State is inspired primarily by the situations noted in recent years in a number of developing countries and in some of the New Independent States – NIS (the former USSR), where the absence of a regulatory authority specifically responsible for the control of activities related to the different applications arising from nuclear technology is common. While neither denying nor diminishing the relevance of these concerns, one is nonetheless bound to admit that this is a first order reaction, because a more thorough analysis of the problems arising clearly shows that, beyond States and the regulatory mechanism, the relationship between supplier and acquirer or user of radiation sources is also at stake and deserves particular attention.

This raises the problem of the addressees of the Code of Conduct, which was put forward by one of the experts during the first round-table discussion on the initial draft, which merely set out topics for discussion. Unfortunately this major issue did not sufficiently attract the attention of the members of the group of experts, and none of the subsequent versions of the draft Code arising from this meeting deals with the subject from this angle.[16]

In order to make up for this shortcoming, we shall take the liberty to do so.

We apologise for focusing on this one aspect of the situation, being aware that there are, undoubtedly, other matters of importance.

One of the attractions in using an instrument of *soft law* rather than a conventional tool is precisely the fact that the responsibility for implementing the standards which it sets out may not in fact be limited to States alone; it may transcend their inherent normative function – the exercise of which may prove uncertain – in order to target directly also other addressees of the normative corpus – its ultimate addressees, in this case the suppliers and acquirers or users of radiation sources.

In fact, the objective of any normative instrument is to instigate behaviour that complies with the rules it lays down. From this perspective, the conventional medium places the onus entirely upon the State to establish the legal, regulatory and administrative arrangements implementing rules agreed in the international legal system into the domestic legal system. As is well known, this means that the relevant standards have to travel an extremely long route before they reach their ultimate addressees, with the State in this instance acting only as an intermediate addressee assuming a kind of catalytic role with regard, precisely, to the ultimate addressees. However, this catalysis, if it is to take place, depends on a large number of imponderables, such as the importance of the problem in relation to the government's political agenda, the ratification of the conventional instrument by the parliament as well as the adoption by it of subsequent legal modifications, and the promulgation of implementing rules, to mention but a few. Even so, this disregards the complexity of the formal negotiations of a convention and its inevitable shortcomings because of the concessions that would have been made on all sides to produce a text that can be regarded as "consensual".

On the contrary, the *soft law* tool does in fact offer the flexibility of not being dependent on State action alone. Not that such action should be neglected, far from it! It makes it possible for all the parties concerned by this type of normative nomenclature to be associated with it on the basis of a shared responsibility; this enables those standards that are more particularly orientated towards the

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Dijon Conference, and to the report – also mentioned – that the Secretariat of the IAEA had prepared at the request of the General Conference in 1998 (GOV/1999/16, attachment).

16. We hope that forthcoming meetings will examine this issue.

behaviour of their ultimate addressees to produce their effects without necessarily waiting until the machinery of State has fulfilled its tasks.

Of course, the objection can be raised that a *soft law* instrument is not legally binding. Rightly so. But neither is an unratified convention! And, in any event, all international relations are governed by the fundamental principle of good faith,[17] including this type of *soft law* instrument qualified more precisely as "concerted unconventional acts".[18] Finally, this will not be the first example of a Code of Conduct in the international normative sphere, the addressees of which are not States.[19]

Hence, the Code of Conduct on the safety of radiation sources and the security of radioactive materials – which, as its name implies, aims precisely to obtain from those concerned to conform their behaviour with the requirements set forth in its standards – also has to concern itself with the actions of the suppliers and acquirers or users of radiation sources in the case of transboundary transactions. It would, in fact, have been more in line with recent trends in normative development to invite representatives of the civil society around the table discussion on the Code, in other words, representatives of the suppliers and users of radiation sources.

In order to cover the entire spectrum of activities and situations related to the safety of radiation sources and the security of radioactive materials as extensively as possible, the Code of Conduct should spell out the supplier's responsibility in the country of export to ensure that the user, in the country of import, may find available the means that allow to secure the sound management of sources that have been withdrawn from service for any reason whatsoever. Otherwise, the supplier should give the acquirer or the user the option of returning back sources which are no longer of use. In the same way, where the acquirer's or user's country of import does not offer the necessary infrastructure to ensure the sound management of sources for which no further use is foreseen, the acquirer or user should have the responsibility, under the terms of the Code, to require that the supplier take back such sources.

Of course, this twin responsibility involves costs. These should be calculated and agreed in the contract governing relations between supplier and acquirer or user. Such costs will be passed on by the user to the beneficiaries of the service involving the use of the said sources. For, all things considered, these costs will be incurred in one way or another, and it is preferable to make provision for them in advance and to manage them, rather than to have to bear such costs in situations of radiological emergency, the consequences of which are inevitably dramatic in terms of their financial and human costs.

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17. It is recalled that Kelsen had made the rule of good faith the cardinal principle of international law, placed at the top of his pyramid representing the hierarchy of norms: Hans KELSEN, *Théorie pure du droit*, Éditions de la Braconnière, Neuchâtel, Switzerland, 2nd Edition 1988, p. 177; the ICJ for its part, in its decision concerning French nuclear tests, has referred to good faith in connection with the obligation for a State to abide by a unilateral undertaking given in the form of a declaration by a high ranking political official, in this case the President of the French Republic: *Australia v. France* & *New Zealand v. France*, ICJ, 20 December 1974, vol. 1974, pp. 253-457; the same rule of good faith is one of the main cornerstones in the arbitration of Professor René-Jean Dupuy in the case opposing the oil companies Texaco and Calasiatic to Libya: the single Arbitrator had retraced the existence of this rule as a principle governing contractual relations in different national legal systems, including the Islamic law in force in Libya, and concluded that good faith was, in this field too, a general principle of international law: *Texaco – Calasiatic v. Libya*, SA R.-J. DUPUY, 19 January 1977, JDI 1977, p. 350.

18. NGUYEN QUOC Dinh, Patrick DAILLIER, Alain PELLET, International Public Law, LGDJ, 6th edition, Paris 1999, p. 338, paragraph 254.

19. See, for example, the work by the United Nations on the Code of Conduct for Transnational Corporations.

Beside transactions involving the supply and acquisition of radiation sources, exchanges of equipment for the use of such sources also form part of the international trade. Therefore, the twin responsibility with which we are concerned here should encompass situations where the supplier is not necessarily the manufacturer himself but, for example, an institution qualified as a user in a particular country and which becomes a supplier by reselling equipment for the use of radiation sources to a user in another country. Such situations are likely to become more frequent in a context where rapid technological progress leads establishments to acquire new technological equipment, while finding it financially advantageous to sell on old equipment to an institution in another country. The responsibility of this type of supplier should be to require that the acquirer provide proof of official licence to import the type of equipment covered by the transaction and, above all, to ensure that the terms of his contract with the manufacturer as regards guarantees, where applicable, and the maintenance of the equipment, can be properly transferred to the benefit of the new acquirer. Indeed, it is well known that the safe use of radiation sources is also dependent on the quality and reliability of the maintenance of this equipment.

In transactions of this kind, the acquirer, for his part, should be responsible not only for obtaining the necessary licences, but also for securing the transfer in his favour of the contractual conditions governing the maintenance of the equipment by the manufacturer or his representatives in the country of import. It is, in fact, extremely important to avoid any break in the chain between the user of the equipment and the manufacturer.

These considerations concerning the ultimate addressees of the Code of Conduct – suppliers, users and acquirers – should in no way discharge States from their duty to set up the required legal, regulatory and administrative framework, according to the common understanding in this connection, and the Code would certainly facilitate their task by setting out clearly the various aspects of the action for which they are responsible. However the implementation of the provisions of the Code is also – and this must not be forgotten – a process that takes place over time, and this time should not be lost: it should rather be turned to account by all its potential addressees to enable them to move progressively, as they carry out their activities, to making the modifications in their methods and practices required of them by the standards of the Code of Conduct that specifically concern them.

For there are no instantaneous behavioural effects induced by a *soft law* corpus or standard: there are only converging wills abiding by good faith.

Insofar as States accept the idea that it would be appropriate, at the very least, to have a Code of Conduct on the safety of radiation sources and the security of radioactive materials, they acknowledge implicitly that the existing normative documents are still insufficient, for a great variety of reasons. However, these have the common feature that their sole addressees are States or their competent bodies. This shortcoming should be overcome in the Code of Conduct by including the other addressees concerned by the normative nomenclature, *i.e* the suppliers, users and acquirers of radiation sources and related equipment. Failing this, the Code of Conduct is very likely to resemble, in terms of the effectiveness of its provisions, the other instruments so laboriously elaborated.

According to one of the cardinal rules governing nuclear activities, a practice involving exposure to radiation should be authorised or undertaken only if the forecasted benefits to persons or society outweigh the detriment resulting from the exposure to radiation. It would be ironic and incoherent if this social perspective did not influence the promoters and drafters of the Code of Conduct on the safety of radiation sources and security of radioactive materials by causing them to involve, both with the content of the code and its process of elaboration, representatives of the civil society who are, inevitably, the ultimate addressees.

There is still time.

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