Nuclear safety and the European Community: Broadening perspectives

Policies and programmes are stimulating progress on the international front

by
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In the present world, nuclear safety has become a necessary condition to make possible the practical applications of nuclear technology in many fields: industry, agriculture, medicine and, particularly, power generation.

As a matter of fact, acceptance of the peaceful applications of nuclear energy is directly related to public knowledge of its benefits and public attitudes towards safety practice. Both depend upon the success of regulators and operators in communicating what they are doing.

In the public perception, there are currently three major problem areas affecting the perspectives of nuclear energy: they are weapons proliferation, safety, and waste disposal.

It is important to realize that the answers the international community is in a position to give regarding the two interrelated issues of safety and waste disposal are at present not so structured and precise as the answers that can be given with respect to safeguards. There is not yet in hand a genuine international nuclear safety regime, that is, an articulated system of international treaties, conventions, and practices to which States could adhere.

The accidents at Three Mile Island and, in particular, at Chernobyl highlighted the needs for such a regime and provided a certain momentum to work towards it. World leaders and the governing bodies of specialized international organizations are increasingly supporting a move in this direction.

One significant landmark in this drive was the International Conference on the Safety of Nuclear Power held under the auspices of the IAEA on an initiative of the European Community (EC) in September 1991.

The Commission of the European Communities (CEC) was pleased to see that a major conclusion of that conference was to open the way to an international framework convention on nuclear safety. The matter has been carefully studied by the IAEA's policy-making bodies, and its Board of Governors has given approval for the Secretariat to proceed with the necessary preparatory work.

The CEC looks forward to continuing its fruitful co-operation with the IAEA in this important endeavour and to finalizing the preparation of the convention as soon as possible.

In the CEC's view, the framework convention should be the cornerstone on which an international nuclear safety regime could be built.

The convention should be more than a code of good practice. Its signatories should undertake the implementation at national level of internationally defined standards of safety, including an effective supervision by independent regulatory bodies. Furthermore, under provisions of the convention, the assistance of the international community should be triggered when these standards cannot be met with only national resources.

Nuclear safety and the EC internal market

The legal bases for EC actions in nuclear safety lie in the Euratom Treaty of 1957. It aims at creating the conditions necessary for the growth of nuclear industries, seeking in particular to establish uniform radiation protection safety standards throughout the Community and providing in this way foundations for Community regulatory, operational, and research actions.

As far as nuclear safety is concerned, the Euratom Treaty has been complemented by two important resolutions of the EC Council of Ministers of July 1975 and February 1980. Respectively, they mandate the Commission to work towards community harmonization of safety requirements for nuclear installations, and to implement a Community action plan for radioactive waste.

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The 1975 Resolution has created within the EC a dynamic harmonization mechanism on nuclear safety requirements involving regulators, safety analysts, research and development institutions, utilities, manufacturers, and the Commission. This harmonization is leading towards consolidation or incorporation of agreed conclusions into the practices of EC Member States.

The Maastricht Treaty and the completion of the Internal Market in 1992 have brought new impetus to the EC which is expected to result in enlarged trade, growth, and specialization. This will affect, among many others, the nuclear sector.

Free movement of persons, including workers, goods, and capital, will be accompanied by demands to maintain or even enhance the level of excellence in radiation and reactor safety achieved so far in the EC. This excellence should in no way be compromised and it is therefore essential to assure its compatibility with the new economic objectives.

The expectations raised by the Internal Market, and indeed by the Single European Economic Area which also will include countries of the European Free Trade Association (EFTA), are already having practical consequences for nuclear energy and nuclear safety policies. Strategic decisions no longer need to be taken on the basis of national interests, but they can now be adopted with a broader European perspective. In addition to bringing national problems of acceptance and resource allocation into a different and enlarged context, the Internal Market will produce improvement by rationalization and economic efficiency which will benefit the whole nuclear sector.

Further harmonization of Community regulations and practices, therefore, will be needed if the EC does not want to compromise this important landmark in the process of European integration. There is consequently a strong link between the Internal Market and nuclear safety because the Internal Market concept demands a genuine European vision of nuclear safety, which goes beyond the particular and sometimes limited visions of individual Member States.

Actually, the achievement of the Internal Market should be the occasion to harmonize inside the EC the highest available safety levels and to contribute at the same time to their international dissemination.

But as Chernobyl highlighted, effective protection of the EC population and environment depends not only on the development of nuclear safety inside but also outside Community borders. Therefore the CEC is thoroughly committed to international efforts to enhance nuclear safety worldwide.

Central and Eastern European aid

Another major challenge to the EC is represented by the new relationship with the Commonwealth of Independent States (CIS) and the Central and Eastern European Countries (CEEC). For a variety of reasons of political, geographical, and historical nature, the EC considers that it has special responsibilities to these continental neighbours.

The success of socio-economic and political reforms in this region will depend in the first place on the direct efforts of the countries concerned. The EC, on its side, is providing important aid and technical assistance to help them overcome difficulties and develop self-help capability.

One of the areas where Community aid has been requested and could be of great value is nuclear safety. Most countries in the region have significant nuclear programmes and nuclear generation is an important component of their economies. At the same time, some of the reactors still in operation in the region were designed and built to earlier standards and do not meet current safety requirements.

Following requests in particular from the former Soviet Union, Czechoslovakia, and Bulgaria, the CEC has already placed at the disposal of these countries important financial resources to help upgrade all aspects of nuclear safety. The EC programme is being extended to other interested countries.

One major objective of the EC nuclear safety policy is to stimulate progress towards a system of internationally accepted nuclear safety requirements, and therefore an essential element consists in supporting the activities of the IAEA. The co-operation with other European States aims at facilitating the incorporation or consolidation of internationally accepted requirements and practices into their systems. Consequently, the CEC seeks coherence of its technical assistance programmes with the work and recommendations of the IAEA.

EC technical assistance is being directed specifically to:

- reinforce nuclear regulatory authorities;
- improve the safety of power reactors;
- strengthen peer co-operation with EC partners; and
- perform safety reviews and implement internationally agreed recommendations.

The overall objective is to help meet safety requirements for Europe as a whole. In order to optimize resource allocation and ensure that other European States benefit from the best EC practices, a key factor of the Commission's assistance strategy is to promote peer association

Public acceptance of nuclear energy frequently depends upon considerations of public health and safety. (Credit: French Nuclear Newsletter)

of Community and Eastern European partners — including regulators, plant operators, safety analysts, architect-designers, and equipment manufacturers — in well-defined projects.

At the end of 1991, the EC assistance effort in nuclear safety represented 20 million ECU for the countries of Central and Eastern Europe and almost 55 million ECU for the CIS. This EC effort will be expanded in the years to come.

Nuclear safety in Central and Eastern Europe is certainly an urgent problem and it is necessary that the response of the international community at large be comprehensive and consistent. Thus it is essential to have an effective means of co-ordinating this response.

The Commission, with the IAEA as its technical adviser, is co-ordinating the assistance in nuclear safety being provided by the Group of 24 industrial countries (G-24) to assure at all times coherence and complementarity among the different national and international programmes.

Public information

Safety of nuclear energy is a practical and instrumental value: that is, a global set of legal regulations, technologies, management practices, and operational procedures which permit the generation of services — most significantly electricity — demanded by consumers in a way not harmful either to the environment or to human beings, including future generations.

Currently large sections of the population harbour doubts about nuclear power and its safety. Public opinion surveys — among others the CEC's Eurobarometer surveys — continue to highlight this fact. Frequently, this is associated with incorrect perceptions about the real risks derived from the peaceful uses of nuclear energy. As a result, nuclear issues have become a significant political problem both inside and outside the EC.

In democratic societies, it is natural that governments and political parties take into consideration the state of public opinion when they formulate their policies and programmes. Hence, it should not be surprising to see that in certain countries the development of nuclear power is slowed down or interrupted, even though at a purely technical-economic level there is sometimes little support for such decisions.

The EC has been making considerable efforts in the area of public information, including legal measures in the form of an EC Directive. These efforts are necessary because information, when it is factual and objective, always helps in making rational choices. Furthermore, in case of nuclear emergencies, an informed public should be able to protect itself better and to avoid some of the negative psychological reaction that caused so much damage after Chernobyl.