

Nuclear safety in the Eastern countries (3 February 2000)

Caption: In this document, dated 3 February 2000, Suzanne Frigren, Director of Directorate C for nuclear safety and civil protection, addresses the question of nuclear energy and nuclear safety. She makes particular reference to strategies for improving nuclear safety in Eastern Europe and to the impact of the Chernobyl accident in the continent.

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NUCLEAR SAFETY IN THE EASTERN COUNTRIES

Introduction

Nobody will contradict me, I think, if I say that the future of Nuclear Energy depends not only on technical and economical considerations but also, and not least, on the absence of any major nuclear safety problem – near of far. Since the Three Mile Islands accident, and even more accentuated through the Chernobyl catastrophe in 1986, public perception of nuclear safety has become a very hot issue when considering the further development of energy systems in many countries. At the same time, we have today a much stronger role for local institutions and the public in relation to decisions on major industrial projects with potential environmental effects.

After the Chernobyl accident there was increasing public and political preoccupation about Eastern Countries operating nuclear installations that were considered not to meet internationally accepted safety standards, and possibly also with insufficient safety practices. The international community responded by adopting a nuclear safety strategy at the G7 summit in Munich in 1992: Reactors of Soviet design were classified, and this was done in two categories: those that could be upgraded at reasonable cost, and those that could not and therefore should be shut down. An important technical assistance program was launched, aiming

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above all at short-term safety improvements where such were justified. International assistance was provided through many bilateral programmes and multilaterally through the Nuclear Safety Account.

The EU has since the beginning been the largest single contributor, apart from what has been provided by individual Member States directly.

An EU strategy for improving nuclear safety in central Europe and former Soviet Union was adopted, based on the G7 strategy, reflecting also the IAEA's classification of design and operation risks regarding nuclear reactors. Two complementary tracks were laid out:

- In the short term, the most urgent problems had to be addressed. Independent and competent safety authorities had to be set up, and nuclear plants had to be made safer through both technical up-grading and better operation and maintenance.
- In the longer term, greater emphasis would be placed on making sustainable improvements in safety by replacing less-safe reactors with alternative energy sources, by improving energy efficiency, by modernisation of the so-called upgradeable reactors and by strengthening legislative and regulatory frameworks.

EU assistance has above all been provided through the Phare nuclear safety programme in the case of central Europe, and the Tacis nuclear safety programme in the case of the former Soviet Union. Within these programmes around € 840 million were made available during the period 1991-1998.

In addition, the EU has opened the possibility to get Euratom loans, a number of small grant programmes have been conducted and support through research has been provided.

Since a few years now, the prospect of a number of Central and Eastern European countries joining the EU (several of them with

nuclear power generation) has emphasised the need to consider the possible effects of enlargement on nuclear safety. In this context, in July 1997, the Commission published its report “Agenda 2000: for a stronger and wider Union”, which places the issue of nuclear safety in the candidate countries of Central and Eastern Europe in a political perspective. The Council confirmed the importance of nuclear safety in the accession process.

When the accession negotiations now come closer, there are some factors to keep in mind in order to understand the situation. Within the area of nuclear safety, the Community legal acquis, either the Euratom Treaty itself or derived legislation, covers mainly radiation protection. Safety of nuclear installations and safe management of radioactive waste and spent nuclear fuel are national responsibilities. Nevertheless, the Council in July 1975, in a resolution on technological problems of nuclear safety, asked the Commission to co-operate with Member States for the “progressive harmonisation of safety requirements and criteria”. Later on a Resolution on the same subject in 1992 requests the Commission to co-operate with the other European countries, and specially those of Central and Eastern Europe and the Newly Independent States to bring their nuclear installations up to the safety levels equivalent to those in practice in the Community”.

Co-operation has been going on in these fields for 25 years by now, producing many important technical reports, developing common approaches to many common problems and, where relevant, promoting harmonisation of practices and criteria. Expert Groups such as the Nuclear Regulators Working Group have in later years been complemented by Groups designed specifically to facilitate involvement of Eastern countries (e.g. CONCERT) or support the assistance programming (e.g. RAMG).

Let me add that the Community has also supported research and development in the field of nuclear safety, through successive Framework Programmes for many years, including lately the safety of Soviet-designed nuclear reactors. In the current Framework Programme, (1998-2002) the applicant States have been invited to participate.

Let me stress in this context, how important it is to open our traditional expert co-operation to the regulators and operators in the East. The opportunity to meet with colleagues and create professional networks will help to build confidence that permit better profit from exchanges of experiences and promote good practices.

In this spirit, representatives from applicant countries are being invited to participate in our traditional EU co-operation. Furthermore, an ad hoc meeting between the Commission services and representatives of regulators and utilities in the candidate countries was held at the end of last year. The objective was to setting the basis for collaboration aiming at improving communication and flow of information to define the best common approach to enlargement preparations. This is especially important as the lack of well-defined Community Standards for nuclear safety makes it difficult to perform assessments and set targets for future achievements. In this context and following the Council conclusions of 7 December 1998, the Commission is preparing a proposal on a method that can be used to assess the nuclear safety status of Candidate States in a fair and objective fashion, as an input to the Community's negotiation positions.

So, in summary, in preparing for enlargement the challenges posed by nuclear safety in the applicant countries are being addressed through both technical assistance, co-operation activities, and the progressive involvement of representatives from the applicant States in the Community's activities.

Even in areas where there is no legal Community acquis, these factors together with the general interest from Candidate Countries to show their readiness to respond to requests made in the negotiation process will push in favour of better nuclear safety. Here, I could also recall the decisions taken last autumn of three candidate countries to set out dates for closing reactors pointed out earlier by the EU as non-upgradeable.

Tacis nuclear safety programme

The EU's strategy with regard to the Newly Independent States differs from its strategy for central Europe for the following reasons:

- These countries are not candidates for EU membership and therefore the EU has less political leverage
- The Newly Independent States and their economies are facing enormous difficulties. For instance, with regard to improving nuclear safety their utilities are often not able to recover the value of electricity sold, so they have few resources available for improving safety or new investment. With regard to the large problems with radioactive waste management, other major investment needs compete at the national level.

EU's strategy for assistance has to reflect the considerable differences among these countries themselves, in terms of size, political regime, industrial capability, environmental status, geography and so on.

As far as nuclear safety is concerned the Russian Federation is particularly important. Russia is the only state of the former Soviet Union involved in all aspects of nuclear power, from uranium mining to plant design, power generation, spent fuel reprocessing and waste management. Naturally, a substantive part of the Tacis nuclear safety programme has since the beginning gone to assistance projects in Russia.

The other major recipient of EU assistance is the Ukraine, and especially projects related to Chernobyl. A package of measures was included in a Memorandum of Understanding, between Ukraine and the G-7, signed in December 1995. The major undertaking by Ukraine was the closure of the Chernobyl plant by 2000. This commitment has only been partly met, and the present situation is unsatisfactory. Furthermore, urgent action is required to bring the shelter (the "sarcophagus" covering the Unit which exploded in 1986) to an environmentally stable condition. To this purpose the EU participates in a multidisciplinary project which is

referred to as the Shelter Implementation Plan and is financed from a special fund. Again the EU is by far the largest contributor.

In addition to these assistance projects, the Commission has been active in helping to draw up a plan for decommissioning of the Chernobyl units, for site remediation work and for radioactive waste management.

The implementation of these programmes has met with difficulties in different ways. For instance, in some cases beneficiary countries have been reluctant to co-operate with the EU under the international community's strategy. For example, differences of opinion remain on the need for early closure of the oldest generation reactors and on the current plans to extend their operating life.

The Community's new Tacis Regulation, which will cover the period 2000-2006 identifies three priorities, namely a) promotion of the transfer of safety culture, b) contribution to international efforts (G7, IAEA), and c) improvement of radioactive waste management, notably in North West Russia.

Let me now turn to an area which should be of specific interest from a local democracy point of view.

I noted already in the beginning that the influence of local institutions and the public today is important and has to be taken fully into account in all major industrial developments. A strong EU instrument to support this is the Directive on Environmental Impact Assessment, an important part of EU legal acquis (not restricted to the nuclear sector).

The assessment of the effects of those public and private projects, which are likely to have a significant impact on the environment, is a step towards a social development of a more sustainable kind. However, this is not always sufficient in the current social context, where the improvement of democracy and adequate political responses to public concerns are strong social demands. It must be complemented with intensive dialogue, transparency and access to information. Getting local governments really involved in this

kind of decision making is a declared goal pursued both in the present Community and in the process of enlargement.

The Commission carries out a considerable amount of consultations with relevant interested groups in relation to plans, programmes and new policies. This has long been recognised as good administrative practice and will be now enshrined in legislation with the ratification of the Community adherence to the Aarhus Convention whose three pillars are: access to information, public participation in environmental decision making and access to justice. The Environment Impact Assessment can be used as vehicle for effective communication with the public.

Other useful vehicles are of course public hearings and community advisory committees, not to mention other general methods which are today being launched for involving local interests in the information generating, analysis and priority setting phases of development planning.

One example of the implementation of environmental impact assessments and public participation in decision making is the selection of sites for disposal and long-term storage of radioactive waste. Within the Commission, studies have been conducted in order to seek further harmonisation of procedural arrangements. These studies have also included the candidate countries, most of which have now introduced relevant legislation. Significant discrepancies are however noted concerning public participation. In particular, the need to develop interactive methods for participation has been less emphasised than in present EU Member States.

I could add that in the framework of the 5th Euratom research programme, decision has just been taken to finance one project on comparison of decision-making processes at local and regional community level in waste facilities siting, and another on enhancing transparency and public participation in nuclear waste management. In the NIS, non-accession countries, EU legal acquis is of course not relevant. Other methods to transfer the practice of environmental assessment and public participation's will have to

be used. I would like to mention the project (K2/R4¹) concerning the completion and modernisation of two VVER 1000 nuclear power units under construction in Ukraine. An environment impact assessment à la EU, and the satisfactory implementation of an environmental action plan, including environmental management that will be applied during operation of the plant, are some of the conditions set by the Euratom and EBRD for loans. As a part of this requirement, a Public consultation Process was carried out in the K2/R3 project. Distribution of documentation, public meetings, collection of questions and comments and provision for answers were conducted. This to my knowledge was the first public consultation held in a NIS country and also the first one to be organised through modern communication methods such as internet to permit widest participation and largest transparency.

Conclusions

Let me conclude by the following:

- The role of nuclear energy in the future is heavily dependent upon how nuclear safety is developing, and also how it is perceived.
- Worries about insufficient safety in Eastern and Central European countries have led to a substantial assistance programme where the EU and its Member States still are the largest contributors.
- For those countries that have applied for EU membership, nuclear safety will be one of the crucial issues and all kinds of assistance and co-operation efforts are made to facilitate the process.
- At the same time, public awareness of both prospects and problems with nuclear is developing quickly also outside the

¹ 2 unit 2 at Khmelnytsky ("K2"), unit 4 at Rovno ("R4")

EU, and so are methods and processes to involve local institutions and the public in decision-making.

- What this will mean for the future role of nuclear energy is impossible to say. It will depend on how convincing politicians, industry and experts will be in the eyes of the public and how that works out in the democratic process.