



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 8 september 2004
COM(2004) 526

2003/0021 (CNS)
2003/0022 (CNS)

Amended proposal for a

COUNCIL DIRECTIVE (Euratom)

laying down basic obligations and general principles on the safety of nuclear installations

Amended proposal for a

COUNCIL DIRECTIVE (Euratom)

on the safe management of the spent nuclear fuel and radioactive waste

(presented by the Commission pursuant to Article 119 (2)
of the Euratom Treaty)

EXPLANATORY MEMORANDUM

1. CONTEXT

On 30 January 2003, the Commission adopted two proposals for Directives dealing respectively with the safety of nuclear facilities and the management of spent fuel and radioactive waste¹. The legal bases of these two proposals are in Chapter 3 of the Euratom Treaty, which concerns health protection.

After the European Economic and Social Committee gave its opinion on 27 March 2003, both proposals were forwarded to the Council on 2 May 2003. In accordance with the procedure in Article 31 of the Euratom Treaty, the Council requested the opinion of the European Parliament. The European Parliament adopted opinions on the proposals in its plenary session on 13 January 2004.

The opinion of the European Parliament supports the approach taken by the Commission of endowing the enlarged European Union with binding legislation in the field of safety of nuclear facilities and of radioactive waste management. Parliament adopted a number of amendments, the majority of which are acceptable to the Commission. At the same time, both proposals were discussed in Council under the Italian and Irish Presidencies. Texts evolved which did not deviate from the political targets that the Commission had set itself in adopting the proposals.

In addition to the consultations resulting from the legislative procedure provided for in the Euratom Treaty, the Commission carried out numerous consultations, with both the national authorities and industries concerned with its proposals, individually or collectively through various fora, before the submission of the proposals for Directives and during their examination process. Consultations were also undertaken with international organizations, such as the International Atomic Energy Agency and the Nuclear Energy Agency.

The Commission took also advantage of its participation in various international meetings to present its legislative proposals. In this regard, the proposals were presented and discussed in various meetings organized not only within Member States but also with third States. These meetings made it possible to describe the evolution of both proposals for Directives throughout the discussion process with the European Parliament and the Council.

2. NATURE OF THE AMENDMENTS

The main amendments adopted by the European Parliament concern the following points:

2.1. Proposal for a Directive in the field of safety of nuclear facilities

The main request of the European Parliament concerns the financing of the decommissioning of nuclear facilities. The expectations of the Parliament are very

¹COM 2003/32

large on this matter, as the inter-institutional agreement concluded on 26 June 2003², at the time of the adoption of the Directive on common rules for the internal electricity market testifies. This agreement stresses the need for the Member States to ensure that adequate financial resources for the decommissioning of nuclear facilities are available and can be used only to this end.

The European Parliament pointed out that there exists among Member States a diversity of methods to finance decommissioning operations. This diversity can lead to distortions of competition and to discriminations between the producers of nuclear power. The Commission had stressed during the debates in the European Parliament the importance of this question in the context of the internal market of electricity. It stated however that it had to be addressed through the means of appropriate Community instruments and not through the directive on the common rules for the internal market of electricity. The Commission considered in this respect that the Euratom Treaty offered a suitable framework.

To meet the expectations of Parliament, it would be necessary to insert a provision in paragraph 2 of Article 9 aiming to guarantee the availability of financial resources and their assignment to decommissioning. In view of the opposition of a majority of Member States, in the Council, to the adoption of a substantial provision in this field, it is proposed to give up this provision under the Directive on nuclear safety. The Commission reserves for itself the possibility to quickly submit any suitable alternative initiative, without excluding the E.C. Treaty.

The other amendments of the European Parliament which are acceptable to the Commission already appear, to a large extent, in the compromise text of the Council.

2.2. Proposal for a Directive on radioactive waste management

The main amendments of the European Parliament acceptable to the Commission concern methods of public information and provisions concerning research and development. The current text of the Council already incorporates these elements to a large degree, except for the amendments concerning research on radioactive waste management, which therefore necessitate the introduction of a new article in the proposal. However, it is not necessary to maintain a reference to the possibility of creating a Joint undertaking. Indeed, certain Member States are hostile to the mentioning of this possibility in the Directive. In any event, the Euratom Treaty already gives this possibility.

It is important to stress that in its amendments, the European Parliament suppressed the Community timetable concept for the authorizations of development and operation of final disposal sites. Member States are free to determine their own dates. The discussions in the Council, in addition, showed clearly that Member States are deeply hostile to the Community timetable concept for final disposal. The safety authorities of the Member States consider that respect of such a timetable could, in certain cases, compel them to grant an authorization which would not be in conformity with their technical assessment of the safety of a disposal site. A more flexible system leaving the Member States free to fix their own dates, with respect of

² O.J. L 176 of 15/07/2003 p 56

timetables based on the peer pressure, such as in IAEA conventions, appears therefore preferable and corresponds to the position of the European Parliament.

3. CONCLUSION

The amendments adopted by the European Parliament and acceptable by the Commission do not alter the political targets that the Commission set itself on 30 January 2003 in adopting both proposals for Directives.

A Community intervention is indispensable to guarantee the maintenance of a high level of nuclear safety within the enlarged European Union. The international conventions in the field of the safety of nuclear facilities and of the management of irradiated fuels and of radioactive waste are certainly legally binding for their contracting parties, but they remain inciting by nature. They do not set up any mechanism to ensure that the obligations which result from them are respected. They do not have the same effectiveness as a Community intervention and cannot therefore be considered as a substitute. The absence of Community legislation would be, in addition, prejudicial to Community citizens and to the interest of the enlarged European Union.

These revised proposals are the occasion for the Commission to give its assent on certain amendments brought by the European Parliament, but also on the developments of the texts following the discussions within the Council.

Modified proposal for a

COUNCIL DIRECTIVE (Euratom)

laying down basic obligations and general principles on the safety of nuclear installations

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Atomic Energy Community, and in particular Articles 31 and 32 thereof,

Having regard to the proposal from the Commission³,

Having regard to the opinion of a group of persons appointed by the Scientific and Technical Committee from among scientific experts in the Member States, in accordance with Article 31 of the Treaty,

Having regard to the opinion of the European Economic and Social Committee⁴,

Having regard to the opinion of the European Parliament⁵,

Whereas:

- (1) Article 2(b) of the Treaty stipulates that the Community shall, as provided in this Treaty, establish uniform safety standards to protect the health of workers and of the general public and ensure that they are applied.
- (2) Article 30 of the Treaty stipulates that basic standards shall be laid down within the Community for the protection of the health of workers and the general public against the dangers arising from ionising radiations.
- (3) Council Directive 96/29/Euratom⁶ lays down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation.
- (4) The accident at the Chernobyl nuclear power station in 1986 highlighted the need for the Community to supplement the basic standards in force at the time with provisions applying in case of a radiological emergency. Accordingly, Council Decision 87/600/Euratom⁷ established arrangements for the early exchange of information in the event of a radiological emergency while Council Directive 89/618/Euratom of 27

³ OJ C , , p. .

⁴ OJ C , , p. .

⁵ OJ C , , p. .

⁶ OJ L 159, 29.6.1996, p. 1.

⁷ OJ L 371, 30.12.1987, p. 76.

November 1989 on informing the general public about health protection measures to be applied and steps to be taken in the event of a radiological emergency⁸ imposed obligations on the Member States on informing the general public in the event of a radiological emergency.

- (5) The basic standards were further supplemented by Council Directive 92/3/Euratom on the supervision and control of shipments of radioactive waste between Member States and into and out of the Community⁹ and by Council Regulation (Euratom) No 1493/93 of 8 June 1993 on shipments of radioactive substances between Member States¹⁰.
- (6) Council Directive 2003/122/Euratom of 22 December 2003 on the control of high activity sealed radioactive sources and orphan sources¹¹ sets out specific requirements to ensure that such sources are kept under control including when they become disused sources.
- (7) Although the radiation protection system created by the basic standards in force ensures a high level of protection for the health of the population based on current scientific knowledge on this subject, this must be supplemented to ensure that a high level of safety of nuclear installations is maintained. Keeping up a high level of safety from conception to decommissioning by maintaining effective defences against radiological risks and preventing accidents which could have radiological consequences is a *sine qua non* in order to fully attain the objectives of health protection set out in Article 2(b) of the Treaty.
- (8) The Member States have already implemented measures enabling them to achieve a high level of nuclear safety within the EU. The evaluation of nuclear safety in the new Member States, carried out by the Council, has ascertained that these countries have already achieved a comparable level of safety or will be in a position to do so, subject to the full implementation of the recommendations resulting from the evaluation.
- (9) International Atomic Energy Agency's (IAEA) standards and approaches constitute an internationally recognised framework of best practice on which national safety requirements are primarily based and to the improvement of which Member States have made considerable contributions.
- (10) Despite a degree of harmonisation, today the nuclear safety measures still vary widely from one Member State to another. At present, this diversity of measures does not allow the Community to satisfy itself that the health protection requirements of Article 2(b) of the Treaty are applied in the best possible way. The European Atomic Energy Community by joining the Convention on Nuclear Safety, which entered into force on 24 October 1996, committed itself to respect an internationally recognised high level of nuclear safety. In order for the Community to ensure that the principles of this Convention are respected at Community level and that "uniform safety standards" as required by Article 2(b) of Euratom Treaty are applied, the basic standards for radiation protection should be supplemented by common safety principles.

⁸ OJ L 357, 7.12.1989, p. 31.

⁹ OJ L 35, 12.2.1992, p. 24.

¹⁰ OJ L 148, 19.6.1993, p. 1.

¹¹ OJ L 346, 31.12.2003, p.57.

- (11) National responsibility for the safety of nuclear installations is the fundamental principle on which nuclear safety regulation has been developed by the international community, as endorsed by the Convention on Nuclear Safety and its Parties including the European Atomic Energy Community; the prime responsibility for the safety of a nuclear installation should, therefore, rest with the licence holder under the control of its national regulatory body and should not be reduced by the provisions of this Directive.
- (12) As well as during the active life of a nuclear installation, dangers from ionising radiation may also arise as a result of decommissioning operations. In order to deal with the risks attached to the disposal of radioactive materials, it is necessary to ensure the safe decommissioning of nuclear installations including the long-term management of radioactive waste and of spent fuel.
- (13) In order to attain the Community objectives regarding radioprotection mentioned above, it is essential to define the basic obligations and general principles on the safety of nuclear installations.
- (14) It is necessary that adequate financial resources are available to support the safety of nuclear installations. To this end, Member States should ensure that such financial resources are built up throughout the productive service life of the installations and are actually available for the purpose for which they have been established.
- (15) This Directive is consistent with the logic of the regime established by the 1994 Convention on Nuclear Safety, which entered into force on 24 October 1996 and to which all the Member States are parties. By Commission Decision 1999/819/Euratom¹² the European Atomic Energy Community acceded to the Convention on 31 January 2000. Since the scope of that Convention is limited to nuclear power plants, this Directive extends the principles laid down therein to all nuclear installations where consideration of safety is required.
- (16) In the same context, the International Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management¹³, which entered into force on 18 June 2001, specifies in Article 26 that each contracting party shall take appropriate steps to ensure the safety of decommissioning of a nuclear facility. Such steps shall ensure that qualified staff and adequate financial resources are available. Article 22(ii) of the Convention calls on each Contracting Party to take the appropriate steps to ensure that adequate financial resources are available to support the safety of facilities for spent fuel and radioactive waste management during their operating lifetime and for decommissioning.
- (17) In order to monitor application of rules set up in conformity with this Directive, Member States should submit reports to the Commission on the measures taken to fulfil their obligations under this Directive.
- (18) With a view to making the best use of national regulatory authorities experience and contributing to the development of a common approach to nuclear safety, a Committee of Regulatory Authorities should be established.

¹² OJ L 318, 11.12.1999, p. 20.

¹³ OJ C , , p. .

- (19) The Commission carried out numerous consultations, with both the national authorities and industries concerned with its proposals, individually or collectively through various for a. Consultations were also undertaken with international organizations, such as the International Atomic Energy Agency and the Nuclear Energy Agency. The Commission took also advantage of its participation in various international meetings to present its legislative proposals. These consultations not only enabled the Commission to present its perception of the problems of nuclear safety in the broad sense but also enabled it to collect the reactions of the various participants in order to foster its reflections.

HAS ADOPTED THIS DIRECTIVE:

Article 1
Subject matter and scope

In order to ensure the protection of the general public and of workers against the dangers of ionising radiation from nuclear installations, this Directive supplements the basic standards laid down under Article 30 of the EAEC Treaty as regards the safety of such installations by setting out relevant basic obligations and general principles.

This Directive shall apply to all nuclear installations, including after the end of their operation, for which consideration of safety is required under the legislative and regulatory framework of the Member State concerned.

Article 2
Definitions

For the purposes of this Directive the following definitions shall apply:

"Nuclear installation" means any civilian facility and its associated land, buildings and equipment where radioactive materials are produced, processed, used, handled, ~~or~~ stored or disposed of temporarily or permanently; this definition shall apply until the moment the facility is released from any radiological restrictions imposed upon it; it does not cover mineral extraction facilities and facilities only holding small quantities of radioactive materials such as sealed radioactive sources for medical, research and industrial purposes;

"Nuclear safety" means the state achieved through measures taken with a view to the prevention of accidents or mitigation of accident consequences, resulting in protection of workers and public from undue radiation hazards arising from nuclear installations;

"Common safety principles" means all the provisions set out in Articles 3 to 11 ;

"Radioactive material" means any material that emits ionising radiation;

"Ionising radiation" means the transfer of energy in the form of particles or electromagnetic waves of a wavelength of 100 nanometer or less or a frequency of 3×10^{15} Hertz or more capable of producing ions directly or indirectly;

"Regulatory body" means any body or bodies, given the legal authority by each Member State to grant in that Member State licences and to regulate the siting, design, construction, commissioning, operation or decommissioning of nuclear installations;

"Licence" means any authorisation granted by the regulatory body to the applicant to confer the responsibility for the siting, design, construction, commissioning, operation or decommissioning of nuclear installations;

"Decommissioning" means all steps leading to the release from regulatory control of a nuclear installation, other than a disposal facility; those steps include the processes of decontamination and dismantling;

"Radioactive waste" means radioactive material in gaseous, liquid or solid form for which no further use is foreseen by the Member State or by a natural or legal person whose decision is accepted by the Member State, and which is controlled as radioactive waste by a regulatory body under the legislative and regulatory framework of the Member State;

"Practice" means a human activity that can increase the exposure of individuals to radiation from an artificial source, or from a natural radiation source where natural radionuclides are processed for their radioactive, fissile or fertile properties, except in the case of an emergency exposure.

Article 3 Regulatory body

Each Member State shall establish a regulatory body and ensure that in discharging its duties on nuclear safety the functions of the regulatory body are effectively separated from those of any other body or organisation, whether private or public, concerned with the promotion or utilisation of nuclear energy. The regulatory body shall be provided with adequate authority, competence and financial and human resources to fulfil its assigned responsibilities.

The regulatory body shall supervise and regulate nuclear safety of nuclear installations and ensure the implementation of safety regulations. It shall grant licences and monitor application of the regulations on siting, design, construction, commissioning, operation or decommissioning of nuclear installations.

Article 4 Responsibility for the safety of the nuclear installations

1. Member States shall take the necessary measures to ensure that the prime responsibility for the safety of a nuclear installation rests with the holder of the relevant license under the control of their regulatory bodies referred to in Article 3. The safety measures and controls to be implemented in a nuclear installation shall be decided solely by the regulatory body and the licence holder.

2. Each Member State shall establish and maintain a legislative and regulatory framework to govern the safety of nuclear installations.

The legislative and regulatory framework shall provide for:

(a) the establishment of applicable national safety requirements and regulations;

(b) a system of licensing with regard to nuclear installations and the prohibition of the operation of any nuclear installation without a licence;

(c) a system of regulatory inspection and assessment of nuclear installations to ascertain compliance with applicable regulations and the terms of licences;

(d) the enforcement of applicable regulations and the terms of licences, including suspension, modification or revoking.

3. Member States shall take the appropriate measures to ensure that each holder of a license meets his responsibilities.

Article 5

Safety in nuclear installations

Member States shall ensure that all reasonably achievable measures are implemented to ensure a high level of safety in nuclear installations.

In particular, Member States shall take all the appropriate steps:

- (a) to establish and maintain effective arrangements in nuclear installations against potential radiological hazards in order to protect individuals and society from harmful effects of ionising radiation from such installations;
- (b) to prevent accidents with radiological consequences and to mitigate such consequences, should they occur;
- (c) to ensure the long term management of all radioactive materials, including radioactive waste and spent nuclear fuel, produced in the course of operation and decommissioning, in accordance with the basic standards for the protection of the general public and of workers against dangers arising from ionising radiation;
- (d) to ensure effective information to and, where appropriate, consultation of their population, as well as the competent authorities of the States in the vicinity of nuclear installations under the jurisdiction of the Member State concerned, insofar as they are likely to be affected in the event of a radiological emergency at that installation, on issues related to safety of such nuclear installations.

Article 6

Priority to safety

Member States shall take all appropriate measures to ensure that in the course of all practices directly related to nuclear installations due priority is given to nuclear safety.

The measures for operational protection of the population in normal circumstances pursuant to Article 44 of Directive 96/29/ Euratom shall take account of all aspects of the nuclear safety of installations.

Article 7
Obligations of licence holders

1. Member States shall require the licence holders to operate their installations in accordance with the common safety principles set out in this Directive , with national safety requirements applicable to them, with the regulations laid down by the regulatory body and with any measures taken by the same regulatory body.
2. Member States shall require the licence holders to establish and implement quality assurance programmes commensurate with the nuclear safety relevance of the installations concerned, subject to at least verification by the regulatory body, with a view to providing confidence that specified requirements for all activities important to nuclear safety are satisfied throughout the life of nuclear installations.
3. Member States shall take the necessary measures for the allocation of responsibility for the decommissioning of nuclear installations, including in those cases where the parties originally responsible are no longer able to meet their commitments.

Article 8
Inspection

Member States shall ensure that nuclear safety inspections are carried out by the regulatory body, or by experts designated by the regulatory body, in nuclear installations throughout their life, including during their decommissioning, and that the licence holder submits to such inspections.

Article 9
Financial resources

Member States shall take the appropriate steps to ensure that adequate financial resources are available from the regulatory body and the operators to support the safety of nuclear installations throughout their life.

Article 10
Nuclear safety expertise

1. Member States shall take the appropriate steps to ensure the availability of nuclear safety experts commensurate to the nuclear safety-related activities carried out under their jurisdiction. Member States shall require in particular that the regulatory body and the licence holders have appropriate staff at their disposal.
2. Member States shall ensure that appropriate curricula and opportunities for continuous theoretical and practical training are available, either in the Member State concerned or through transnational cooperation, for the personnel concerned in the safety of nuclear installations.

Article 11
Emergency plans

1. Member States shall require the establishment of off-site as well as, in the case of Member States with nuclear installations under their jurisdiction, on-site emergency plans approved by their regulatory body, and regularly tested, to deal with operating incidents and accidents in order to reduce the possible effects on its population of any radiological emergencies resulting from operation of nuclear installations.
2. Each Member State shall take the appropriate steps to ensure that, insofar as they are likely to be affected by a radiological emergency, its own population and the competent authorities of the States in the vicinity of nuclear installations under its jurisdiction are provided with appropriate information for emergency planning and response.
3. Member States shall require the license holder to notify the regulatory body forthwith of any incidents significant to safety and of the corrective measures taken in response.

Article 12
Committee of Regulatory Authorities

1. **A Committee of Regulatory Authorities (hereinafter "the Committee") is hereby established**
2. **The Committee shall be composed of representatives of the regulatory bodies designated by each Member State.**
3. **The Committee shall adopt its rules of procedure and designate a chairman from among its members.**

The Commission shall act as the Secretariat of the Committee.

4. **The Committee shall:**
 - (a) **encourage exchange of best practice among regulatory authorities, with a view to ensuring progressive harmonisation of approaches to safety, in the framework of this Directive;**
 - (b) **advise the Commission on all matters concerning nuclear safety, including the summary reports submitted as per Article 14;**
 - © **define guidelines on the content, form, structure and timetable for national reports as in Article 13, with a view to ensuring, as much as possible, coherence with the reports which must be prepared under Article 5 of the Convention on Nuclear Safety;**
 - (d) **assess the national reports prepared under Article 13, give an opinion, possibly containing recommendations to the Member State concerned, on each of the national reports, on request of the Commission.**

Article 13
National reports

1. Member States shall submit a report to the Commission on the measures taken to fulfil their obligations under this Directive and on the safety situation in nuclear installations under their jurisdiction.

Member States may indicate which parts of the report shall be considered confidential.

The Commission shall forward those reports to the Committee.

2. The first report shall be submitted within [three] years from the date provided for in Article 15 (1) and thereafter at the same intervals as the reports to be drawn up pursuant to Article 5 of the Convention on Nuclear Safety attached to Decision 1999/819/Euratom in accordance with the guidelines drawn up by the Committee.

Article 14
Summary reports

The Commission shall submit regular summary reports to the European Parliament and to the Council in conformity with the timetable defined in Article 13, paragraph 2 on the application of this Directive and on the overall progress made on nuclear safety in the Community, based on the reports submitted in accordance with Article 13, paragraph 1, subject to the confidentiality requirements concerned.

Article 15
Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by [two years after the date referred to in Article 16] at the latest.

2. When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

3. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

Article 16
Entry into force

This Directive shall enter into force the twentieth day after its publication in the Official Journal of the European Union.

Article 17
Addressees

This Directive is addressed to the Member States.

Done at Brussels,

*For the Council
The President*

Modified proposal for a

COUNCIL DIRECTIVE (Euratom)

on the safe management of spent nuclear fuel and radioactive waste

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Atomic Energy Community, and in particular Articles 31 and 32 thereof,

Having regard to the proposal from the Commission¹⁴,

Having regard to the opinion of a group of persons appointed by the Scientific and Technical Committee from among scientific experts in the Member States, in accordance with Article 31 of the Treaty,

Having regard to the opinion of the European Economic and Social Committee¹⁵,

Having regard to the opinion of the European Parliament¹⁶,

Whereas:

- (1) Article 2(b) of the Treaty stipulates that the Community shall, as provided in this Treaty, establish uniform safety standards to protect the health of workers and of the general public and ensure that they are applied.
- (2) Article 30 of the Treaty stipulates that basic standards shall be laid down within the Community for the protection of the health of workers and the general public against the dangers arising from ionising radiation..
- (3) Article 37 of the Treaty requires Member States to provide the Commission with general data relating to any plan for the disposal of radioactive waste.
- (4) Council Directive 96/29/Euratom¹⁷ lays down basic safety standards for the protection of health of workers and the general public gainst the dangers of ionising radiation.
- (5) Council Directive 92/3/Euratom¹⁸ sets up a supervision and control system of shipments of radioactive waste between Member States and into and out of Community, including a compulsory and common notification procedure for

¹⁴ OJ C , , p.

¹⁵ OJ C , , p.

¹⁶ OJ C , , p.

¹⁷ OJ L 159, 29/06/1996, p. 1

¹⁸ OJ L 035, 12/02/1992, p. 24

shipments of such waste, and very strict limitations and criteria regarding the third countries to which radioactive waste may be exported.

- (6) Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment¹⁹, including those involving disposal and long-term storage of radioactive waste, requests Member States to adopt all measures necessary to ensure that, before consent is given, projects likely to have significant effects on the environment, by virtue, inter alia, of their nature, size or location are made subject to a requirement for assessment with regard to their effects.
- (7) Council Decision 87/600/Euratom²⁰ established arrangements for the early exchange of information in the event of a radiological emergency while Council Directive 89/618/Euratom of 27 November 1989 on informing the general public about health protection measures to be applied and steps to be taken in the event of a radiological emergency²¹ imposed obligations on the Member States on informing the general public in the event of a radiological emergency.
- (8) Directive 2003/122/Euratom of 22 December 2003 on the control of high activity sealed radioactive sources and orphan sources²² sets out specific requirements to ensure that such sources are kept under control including when they become disused sources.
- (9) Existing Community legislation does not provide for specific rules ensuring that at all time spent nuclear fuel and radioactive waste is safely managed in an effective and consistent manner throughout the European Union, and existing Community rules should therefore be supplemented.
- (10) The Commission Green Paper “Towards a European Strategy for the security of energy supply”²³ stresses that a satisfactory solution has to be found for the radioactive waste issue with maximum transparency.
- (11) The International Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, which entered into force on 18 June 2001, aims at achieving and maintaining a high level of safety world-wide in spent fuel and radioactive waste management through the enhancement of national measures and international co-operation.
- (12) The production of nuclear energy generates radioactive wastes. Radioactive waste is generated also in the use of radionuclides in medicine, research and industry. Releases of radionuclides from spent fuel and radioactive waste may have consequences beyond national borders.
- (13) Waste from extractive operations that contains only naturally occurring radioactive materials represents a waste management issue which should be addressed by Member States but which is of a different nature than the management of radioactive waste and spent nuclear fuel covered by this Directive.

¹⁹ OJ L 175, 05/07/1985, p. 40, as amended by Council Directive 97/11/EC, OJ L 073, 14/03/1997, p. 5

²⁰ OJ L 371, 30.12.1987, p. 76

²¹ OJ L 357, 7.12.1989, p. 31

²² OJ L 346, 31.12.2003, p. 57

²³ COM(2000)769

- (14) Each Member State should remain fully responsible for the management of all spent nuclear fuel and radioactive waste under its jurisdiction.
- (15) The safe management of spent nuclear fuel and radioactive waste would be enhanced by greater co-operation and co-ordination between Member States.
- (16) The Council Resolution of 15 June 1992²⁴ invited the Commission to develop a common approach and to work with Member States towards harmonisation at Community level of radioactive waste management strategies and practices wherever possible.
- (17) It is accepted among experts that, on the basis of present knowledge, geological disposal represents the most appropriate solution for long-term management of long-lived radioactive waste. To that effect Member States should study the possibility to give priority to deep geological disposal to dispose of their long-lived radioactive waste, taking due account of their specific circumstances.
- (18) The definition of a timetable for the implementation of appropriate solutions for the management of radioactive waste should ensure that undue burdens are not imposed on future generations while at the same time respecting, both now and in the future, the basic principles of radiation protection laid down in Chapter 1 of Directive 96/29/Euratom. In this respect, regarding the financial schemes concerned, it is advisable that the waste producer or the current waste owner should pay for the management of the waste.
- (19) The progress made by Member States towards the solutions for the management of the different forms of radioactive waste is relevant for the Commission when it exercises its responsibilities under the Treaty and in particular those defined under Chapter 4 of Title II.
- (20) It is important to base the programmes for the management of radioactive waste on relevant knowledge arising from research and technological development in the various fields related to radioactive waste, including minimisation. In this respect, there are common issues facing many Member States that can be beneficially addressed at Community level through the Community Framework Programmes and, where appropriate, through other initiatives, such as the European Research Area, aimed at complementing and supporting Member States' activities.
- (21) It is furthermore recalled that co-operation in common areas of research and technological development can be undertaken in line with the provisions of Chapter 1 of Title II of the Treaty or may be entrusted to one or more Joint Undertakings to be established under Chapter 5 of Title II of the Treaty.
- (22) While nothing in this Directive should imply that Member States have to accept shipments of radioactive waste it may be advantageous for Member States to cooperate with a view to establishing multinational waste management programmes. It is acknowledged in particular that there are Member States which have only small quantities of radioactive waste, or a territory or geological characteristics not suitable

²⁴ OJ C 158, 25/06/1992, p. 3

for a deep repository and that these Member States may wish to establish agreements with other States for finding common disposal solutions.

- (23) With a view to making the best use of national experience and contributing to the development of a common approach to radioactive waste management the national reports should be reviewed by a Committee of experts, and synergies should be sought with relevant activities carried out under the Joint Convention on the Safety of Spent Fuel Management and on the safety of Radioactive Waste management.
- (24) The application of this Directive should be reviewed by means of regular reports from the Member States,

HAS ADOPTED THIS DIRECTIVE:

Article 1
Subject matter and Scope

This Directive supplements the basic standards laid down under Article 30 of the EAEC Treaty as regards requirements for the safe management of spent nuclear fuel and radioactive waste, so as:

- (a) to ensure that all spent nuclear fuel and radioactive waste is safely managed in order to protect the health of workers and of the general public from harmful effects of ionising radiation, both now and in the future;
- (b) to achieve and maintain a high level of safety in the management of spent nuclear fuel and radioactive waste in order to protect the health of workers and of the general public by taking all necessary precautionary and preventive measures throughout the Community in an effective manner;
- (c) to enhance effective public information and, where appropriate, consultation in order to ensure the required transparency in the relevant decision-making processes.

2. This Directive shall apply to all stages of the management of spent nuclear fuel and radioactive waste originated from civilian applications.

Article 2
Definitions

For the purpose of this Directive, the following definitions shall apply:

- (1) “*decommissioning*” means all steps leading to the release from regulatory control of a nuclear installation, other than a disposal facility; those steps include the processes of decontamination and dismantling;
- (2) “*discharges*” means planned and controlled releases into the environment, as a legitimate practice, within limits authorised by the regulatory body, of liquid or gaseous radioactive material that originate from regulated nuclear facilities during normal operation;

- (3) “*disposal*” means the emplacement of radioactive waste, including spent fuel for which no further use is foreseen, in an appropriate facility without the intention of retrieval;
- (4) “*ionising radiation*” means the transfer of energy in the form of particles or electromagnetic waves of a wavelength of 100 nanometer or less or a frequency of 3×10^{15} Hertz or more capable of producing ions directly or indirectly;
- (5) “*radioactive material*” means any material that emits ionising radiation;
- (6) “*nuclear installation*” means any civilian facility and its associated land, buildings and equipment where radioactive materials are produced, processed, used, handled, stored or disposed of temporarily or permanently.; this definition shall apply until the moment the facility is released from any radiological restrictions imposed upon it; it does not cover mineral extraction facilities and facilities only holding minor amounts of radioactive materials such as sealed radioactive sources for medical, research and industrial purposes;
- (7) “*nuclear fuel cycle*” means all stages in the cycle of production, use and treatment of the fuel used in nuclear reactors, including such steps as mineral extraction, conversion, enrichment, fuel fabrication, energy production, storage of spent fuel and/or reprocessing followed by recycling of fissile and fertile material and storage of vitrified and other radioactive wastes, conditioning and encapsulation of spent fuel and/or other radioactive wastes and disposal;
- (8) “*radioactive waste*” means radioactive material in gaseous, liquid or solid form for which no further use is foreseen by the Member State or by a natural or legal person whose decision is accepted by the Member State, and which is controlled as radioactive waste by a regulatory body under the legislative and regulatory framework of the Member State. This definition does not cover waste from extractive operations that contains only naturally occurring radioactive materials and does not cover small quantities of radioactive materials such as sealed radioactive sources unless declared as radioactive waste by a Member State;
- (9) “*radioactive waste management*” means all activities, including decommissioning activities, that relate to the handling, pre-treatment, treatment, conditioning, storage, or disposal of radioactive waste excluding off-site transportation. It may also involve discharges;
- (10) “*regulatory body*” means any body or bodies given the legal authority by the Member State to grant licences and regulate any aspect of the safety of spent fuel or radioactive waste management ;
- (11) “*licence*” means any authorisation, permission or certification granted by a regulatory body to carry out any activity related to management of spent fuel or of radioactive waste;
- (12) “*reprocessing*” means a process or operation, the purpose of which is to extract nuclear material from spent fuel for further use;
- (13) “*shipment*” means all of the operations involved in moving spent fuel and radioactive waste from the place of origin to the place of destination, including transport for storage or disposal;
- (14) “*spent (nuclear) fuel*” means nuclear fuel that has been irradiated in and permanently removed from a reactor core;

(15) “storage” means the holding of radioactive waste or spent nuclear fuel in a facility that provides for its containment, with the intention of retrieval.

Article 3

General requirements for the safe management of spent nuclear fuel and radioactive waste

1. Member States shall take all necessary measures to ensure that spent nuclear fuel and radioactive waste are managed in such a way that workers and the general public are adequately protected against radiological hazards.
2. Member States shall take the appropriate steps to ensure that the generation of radioactive waste is kept to the minimum practicable.
3. Member States shall establish or designate a regulatory body entrusted with the implementation of the national legislative and regulatory framework governing the safety of spent fuel and radioactive waste management provided with adequate authority, competence and financial and human resources to fulfil its assigned responsibilities. In discharging its duties the functions of the regulatory body shall be effectively separated from those of any other body or organisation, whether private or public, involved in the management of spent fuel or radioactive waste.
4. Member States shall ensure that adequate financial resources are available when needed to support the safe management of spent nuclear fuel and radioactive waste, including that from decommissioning activities.
5. Member States shall ensure a high level of transparency on issues related to the management of spent nuclear fuel and radioactive waste under their jurisdiction. This shall be achieved by effective information to and, where appropriate, consultation of their population as well as the competent authorities of States in the vicinity of disposal or storage sites, insofar as they are likely to be affected in the event of a radiological emergency at such sites. Member States shall ensure public information on the measures to be taken and the state of progress of the decision-making process, notably as regards the methodology for the selection of storage sites, or disposal sites if any.

Article 4

National programmes for the management of radioactive waste

1. Each Member State shall establish and keep updated a clearly defined national programme for the management of radioactive waste that includes all radioactive waste under its jurisdiction and covers all stages of management.

Member States shall study the possibility to give priority to the solution of deep geological disposal, taking due account of their specific circumstances.

2. The national programme shall include an inventory of the amount of radioactive waste managed in the Member State. This inventory shall be established under the control of the Member State. The programme shall cover all aspects of the long-term management of radioactive waste and spent fuel that is not destined for reprocessing or, in the case of research reactor fuel, not destined for reprocessing or subject to take-back agreements with the manufacturing country.

The steps retained in the programme shall reflect the level of activities and the amount of radioactive waste generated in the Member State.

3. The programme shall pay special attention to the general requirements listed in Article

4. The programme may include shipments of radioactive waste to another Member State or third country only if the country of origin and the country of destination have agreed to the shipment prior to its taking place and such shipments:

- a) are fully in compliance with existing Community legislation, principally Directive 92/3/Euratom, and international commitments,
- b) are covered by bilateral or multilateral agreements between States and
- c) only take place to States with appropriate facilities that meet accepted norms and standards of the Member State of origin and, in the case of material within the meaning of Article 197 of the Treaty, are under adequate safeguards.

Article 5

Timetable for the management of radioactive waste

1. The national management programme shall include the timetable chosen for the long-term management of radioactive waste, covering low and intermediate level waste as well as high level waste.

2. Where a Member State considers that there is no suitable alternative to disposal, and where such a disposal option is not yet available, this Member State shall include, as a minimum, the dates for the following points into its programme:

a) licence for development of one (or more) disposal site(s)

b) licence for operation of the disposal facility(ies).

Member States may decide to deposit more than one category of radioactive waste at the same site.

Member States may subsequently supplement the timetable in order to, inter alia, cover further disposal sites and facilities.

Article 6

Research and technological development in radioactive waste management

1. The programme for the management of radioactive waste within the meaning of Article 4 of this Directive shall take due account of the research and technological development in the field of radioactive waste.

2. Based on the national reports by Member States required under Article 8 of this Directive, the Commission shall identify common areas of research and technological development that could be co-ordinated at the Community level, taking fully into account the activities under the research and training programmes adopted pursuant to Article 7 of the Treaty.

3. The Commission shall encourage co-operation between the Member States in common areas of research and technological development in line with the provisions of Chapter 1 of Title II of the Treaty, mainly through the instruments of the Framework Programmes for Research and Technological Development.

Article 7
Committee of Experts

1. A Committee of Experts (hereinafter "the Committee") is hereby established to carry out the tasks assigned to it under Article 8.

2. The Committee shall be composed of experts in the field of the safety and the management of spent fuel and radioactive waste designated by each Member State.

3. The Committee shall adopt its rules of procedure and designate a chairman from among its members. The Commission shall act as the Secretariat of the Committee.

Article 8
National reports and summary reports

1 Each Member State shall submit detailed national reports to the Commission on the activities carried out pursuant to Article 3 and on the programme referred to in Articles 4 and 5. Member States may indicate which parts of the report shall be considered confidential.

2. The first report shall be submitted within [three] years from the date provided for in Article 9 paragraph 1 and thereafter at the same intervals as the reports to be drawn up pursuant to Article 32 of the International Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management.

The Commission, in consultation with the Committee, shall establish Guidelines for the content and timing of these reports with a view to ensuring, to the extent possible, consistency with the reports to be drawn up pursuant to Article 32 of the Joint Convention.

3. The report referred to in paragraph 1 shall also summarise research and technological development in the field of radioactive waste management that is being carried out or is planned within the Member State, taking into account legitimate confidentiality requirements, including information regarding expected duration and dates of completion.

4. The reports referred to in paragraph 1 shall be subject to review by the Committee. The Committee shall give an opinion on each report, which may contain recommendations to the Member State concerned. The Commission shall organise the review process during which Member States may be requested to provide additional information. The Commission shall forward the opinion of the Committee to the Member State concerned which shall, within six months of receipt, present its observations, if any, including the measures which it may have taken or intends to take in response to the opinion of the Committee.

5. Every three years the Commission shall, following consultation of the Committee, submit to the European Parliament and to the Council in conformity with the timetable defined in paragraph 2 a summary report on the management of radioactive waste in the European Union. The report shall be based on the information contained in the national

reports referred to in paragraph 1 as well as the findings of the review process referred to in paragraph 4.

Article 9
Implementation

1. Member States shall bring into force the laws, regulations, and administrative provisions necessary to comply with this Directive by [two years after the date referred to in Article 10] at the latest.
2. When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such a reference is to be made.
3. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

Article 10
Entry into force

This Directive shall enter into force on the twentieth day following its publication in the Official Journal of the European Union.

Article 11
Addressees

This Directive is addressed to the Member States.

Done at Brussels,

For the Council
The President