



**COUNCIL OF
THE EUROPEAN UNION**

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NOTE

from:	General Secretariat of the Council
to:	Delegations
No. Cion prop. :	15770/10 ATO 63 ENV 742
Subject :	Proposal for a Council Directive (Euratom) on the management of spent fuel and radioactive waste

Based on the suggestions received, the Presidency prepared the attached text to be discussed at the WPAQ meeting on 23 March 2011.

The changes compared to REV 5 are in **bold italics underline**; deletions are marked with ~~strikethrough~~. These changes concern recitals 30, 38, 39, and 39a and Articles 2(1), 3(5a) and (9a), 4 to 8, and 17. They are still subject to one or more scrutiny reservations.

Additional clarification comments of the Presidency and relevant alternative proposals/comments by the delegations on unchanged text are given in the footnotes.

Proposal for a

COUNCIL DIRECTIVE

**establishing a Community framework for the responsible and safe management of spent 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 European Commission, drawn up after obtaining the opinion of a group of persons appointed by the Scientific and Technical Committee from among scientific experts in the Member States, and after having consulted the European Economic and Social Committee¹,

Having regard to the opinion of the European Parliament²,

Whereas:

- (1) Article 2(b) of the Treaty provides for the establishment of uniform safety standards to protect the health of workers and of the general public.
- (2) Article 30 of the Treaty provides for the establishment of basic standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiations.
- (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.

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- (4) Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation¹ ~~applies to all practices which involve a risk from ionizing radiation emanating from an artificial source or from a natural radiation source in cases where natural radionuclides are or have been processed in view of their radioactive, fissile or fertile properties. It also covers the authorised releases of materials that originate from such practices. The provisions of that Directive have been supplemented by more specific legislation.~~ **establishes the basic safety standards. The provisions of that Directive have been supplemented by more specific legislation.**
- ~~(4a) Commission Regulation (Euratom) No 302/2005 of 8 February 2005 on the application of Euratom safeguards establishes a Community legal basis for safeguards [] of source material or special fissile material.~~
- (5) As recognised by the Court of Justice of the European Union (hereinafter referred to as 'the Court of Justice') in its case-law, the provisions of Chapter 3 of the Treaty, on health and safety, form a coherent whole conferring upon the Commission powers of some considerable scope in order to protect the population and the environment against the risks of nuclear contamination².
- (6) Council Decision 87/600/Euratom of 14 December 1987 on Community arrangements for the early exchange of information in the event of a radiological emergency³ established a framework for notification and provision of information to be used by the Member States in order to protect the general public in case of a radiological emergency. 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 emergency⁴ imposed obligations on the Member States to inform the general public in the event of a radiological emergency.
- (7) Council Directive 2003/122/Euratom of 22 December 2003 provides for the control of high-activity sealed radioactive sources and orphan sources⁵, including disused sources.

¹ OJ L 159, 29.6.1996, p.1.

² C-187/87 (1988 ECR p.5013) and C-29/99 (2002 ECR p. I-11221)

³ OJ L 371, 30.12.1987, p.76.

⁴ OJ L 357, 7.12.1989, p. 31.

⁵ OJ L 346, 31.12.2003, p. 57.

(8) Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC¹ covers the management of waste from extractive industries which may be radioactive, excluding such aspects as are specific to radioactivity which are matter dealt with under Euratom Treaty,

(9) Council Directive 2006/117/Euratom of 20 November 2006² lays down a Community system of supervision and control of transboundary shipments of radioactive waste and spent fuel. This Directive was supplemented by Commission Recommendation 2008/956/Euratom of 4 December 2008 on criteria for the export of radioactive waste and spent fuel to third countries³.

(10) Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations⁴, defines obligations on the Member States to establish and maintain a national framework for nuclear safety. While that Directive concerns principally the nuclear safety of nuclear installation, it states that it is also important to ensure the safe management of spent fuel and radioactive waste, including at storage and disposal facilities. [However, Directive 2009/71/Euratom does not cover all facilities and aspects of spent fuel and radioactive waste management.]⁵

~~(11) Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment, as amended by Directive 97/11/EC, by Directive 2003/35/EC and by Directive 2009/31/EC⁶ applies to spent fuel management facilities and [] to radioactive waste management facilities, in so far as they are covered by Annex I of this Directive.~~

~~(12) Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment⁷ states that environmental assessment shall be carried out for all plans and programmes which are prepared for certain sectors and set the framework for future development consent of projects listed in Annexes I and II to Directive 85/337/EEC.~~

¹ **OJ 41, 14.2.2003, p. 26**

² OJ L 337, 5.12.2006, p. 21.

³ OJ L 338, 17.12.2008, p. 69.

⁴ OJ L 172, 2.7.2009, p. 18.

⁵ *FR/SI prefer to replace it with : However, the safety provisions of this Directive shall not apply to installations, notably spent fuel treatment and storage facilities, that are already covered by Directive 2009/71/Euratom.*

⁶ OJ L 175, 5.7.1985, p. 40.

⁷ OJ L 197, 21.7.2001, p. 30

- ~~(13) Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information¹ refers to radioactive waste in the definition of 'environmental information'.~~
- ~~(14) Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment² amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC applies to certain plans and programmes contemplated by Directive 2001/42.~~
- (15) Commission Recommendation of 24 October 2006 on the management of the financial resources for the decommissioning of nuclear installations, spent fuel and radioactive waste³ focuses on the adequacy of funding, its financial security and its transparency in order to ensure that the funds are only used for the intended purposes.
- ~~(16) Existing Community legislation does not lay down specific rules ensuring safe and responsible management of spent fuel and radioactive waste at all stages, from generation to disposal.~~
- (17) The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (hereafter referred to as 'the Joint Convention')⁴, concluded under the auspices of the IAEA, ~~to which Euratom and almost all Member States are Contracting Parties,~~ **represents an incentive instrument and** 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.
- (18) In 2006 the IAEA updated the structure of standards and published the Fundamental Safety Principles⁵, **developed in cooperation with** ~~which were jointly sponsored by Euratom, OECD/NEA and other international organisations. As stated by the Joint Sponsoring Organisations, a~~ Applying the Fundamental Safety Principles will facilitate the application of international safety standards and will make for greater consistency between the arrangements of different States. ~~It is therefore desirable that all States adhere to and advocate these principles. States or sponsoring organisations may adopt the principles, at their own discretion, for application to their own activities.~~

¹ OJ L 41, 14.2.2003, p. 26

² OJ L 156, 25.6.2003, p. 17

³ OJ L 330, 28.11.2006, p.31

⁴ INFCIRC/546 of 24 December 1997.

⁵ Fundamental Safety Principles, Safety Fundamentals No. SF-1, IAEA, Vienna, 2006

- ~~(19) The Joint Convention represents an incentive instrument, as it does not entail any sanctions for non-compliance. Also the safety standards developed by the IAEA in cooperation with Euratom, OECD/NEA and other international organisations are neither legally binding, nor enforceable.~~
- (20) Following the Council's invitation to set up a High Level Group at EU level, as recorded in its Conclusions of 8 May 2007 on nuclear safety and safe management of spent fuel and radioactive waste, the European Nuclear Safety Regulators Group (ENSREG) was set up by Commission Decision 2007/530/Euratom of 17 July 2007 on establishing the European High Level Group on Nuclear Safety and Waste Management¹ to contribute to the achievement of the Community objectives in the field of spent fuel and radioactive waste management.
- ~~(21) The first conclusions and recommendations of ENSREG were reflected in the Council Resolution of 16 December 2008 on Spent Fuel and Radioactive Waste Management. In July 2009 the first ENSREG's report² was submitted to the Commission, and transmitted to the European Parliament and the Council in September. It was reflected by the Council in its Conclusions of 10 November 2009³, where the Council further invites the Commission to make full use of ENSREG expertise in the case of proposals for legally binding instruments in the field of safe management of spent fuel and radioactive waste being considered.~~
- (22) The European Parliament called for harmonised standards for radioactive waste management⁴ and invited the Commission to review the relevant drafts of its legislative proposal and submit a new proposal for a directive on radioactive waste management⁵
- ~~(23) There is a growing recognition in the Union as well as worldwide of the need for a stronger demonstration of responsible use of nuclear energy, covering in particular nuclear safety, security and safeguards. In this context the issue of spent fuel and radioactive waste management needs to be addressed in order to ensure a safe, optimised and sustainable use of nuclear energy.~~

¹ OJ L 195, 17.7.2007,p.44.

² Report of the European Nuclear Safety Regulators Group, July 2009

³ Council conclusions on the report by the Europeans Nuclear Regulators Group, 10 November 2009

⁴ European Parliament resolution on Assessing Euratom – 50 Years of European nuclear energy policy of 10 May 2007

⁵ Report on Assessing Euratom – 50 Years of European nuclear energy policy, A6-0129/2007

- (24) While it is up to the Member States to define their energy mix, all Member States generate radioactive waste **from power generation or in the course of industrial, medical and research activities, or through decommissioning of nuclear facilities and in situations of remediation and interventions,** ~~whether or not they have nuclear reactors. Radioactive waste arises mainly from activities of the nuclear fuel cycle, such as the operation of nuclear power plants and the reprocessing of spent fuel, but also from other activities, such as applications of radioactive isotopes in medicine, research and industry.~~
- (25) The operation of nuclear reactors generates spent fuel. Each Member State may define its fuel cycle policy. The spent fuel may be either considered as a valuable resource that may be reprocessed or, if regarded as radioactive waste, destined for direct disposal. Whatever option is chosen, the disposal of high level waste, separated at reprocessing, or of spent fuel regarded as waste should be considered.
- ~~(26) The same safety objectives should apply to spent fuel management and to radioactive waste management. Recognising this, the Joint Convention and the IAEA Safety Standards impose the same obligations for disposal of spent fuel as for the disposal of radioactive waste.~~
- (27) Radioactive waste, including spent fuel considered as waste, requires containment and isolation from humans and the living environment over the long term. Its specific nature (content of radionuclides) requires arrangements to protect human health and the environment against dangers arising from ionizing radiation, including disposal in appropriate facilities [as the end point of its management. The storage of radioactive waste, including long-term storage, is an interim solution but not an alternative to disposal.]¹
- ~~(28) A national radioactive waste classification scheme should support these arrangements taking fully into account the specific types and properties of radioactive waste. The precise criteria according to which waste is assigned to a particular waste class will depend on the specific situation in the State in relation to the nature of the waste and the disposal options available or under consideration.~~
- (29) ~~The typical disposal concept for short lived low and intermediate level waste is near surface disposal. Following 30 years of research, i~~It is broadly accepted at the technical level that deep geological disposal represents the safest and most sustainable option as the end point of the management of high level waste and spent fuel considered as waste. Thus moving towards implementation of disposal should be pursued.

¹ The part in square brackets is still under discussion.

- (30) ~~Although each Member State is responsible for its own policy on spent fuel and radioactive waste management, that policy should respect the relevant fundamental safety principles set by the IAEA¹. It is an ethical obligation of each Member State to avoid any undue burden on future generations in respect of the existing spent fuel and radioactive waste, as well as those expected from decommissioning of existing nuclear installations.~~ **Provisions of the present Directive as well as other measures and policies that are in place or that are planned to be adopted avoid that an undue burden is left to future generations**
- (31) ~~For the responsible management of spent fuel and radioactive waste, each Member State should establish a national framework which assures political commitments and stepwise decision-making implemented through adequate legislation, regulation and organisation with a clear allocation of responsibilities.~~
- (32) The ultimate responsibility of Member States for the safety of spent fuel and radioactive waste management is a fundamental principle reaffirmed by the Joint Convention. This principle of national responsibility, as well as the principle of prime responsibility of the licence holder for the safety of spent fuel and radioactive waste management under the supervision of its national competent regulatory authority, should be enhanced and the role and independence of the competent regulatory authority should be reinforced by this Directive.
- (32a) It is understood that the utilization of radioactive applications by a competent regulatory authority for the purpose of carrying out its regulatory tasks does not affect its independence.**
- (33) A national programme should be established to ensure the transposition of the political decisions into clear provisions for the timely implementation of all steps of spent fuel and radioactive waste management from generation to disposal. This should include all activities that relate to handling, pre-treatment, treatment, conditioning, storage, and disposal of radioactive waste. The programme should include description of controls over a repository after closure or a facility undergoing decommissioning and of controls placed on a site that has been released from regulatory control under the condition of observing specified restrictions on its future use to ensure that these restrictions are complied with. The national programme may be a reference document or a set of documents.

¹ Fundamental Safety Principles, Safety Fundamentals No. SF-1, IAEA, Vienna, 2006

- (34) The different steps in spent fuel and radioactive waste management are closely interrelated. Decisions taken in one individual step may affect a subsequent step. Therefore such interdependencies should be taken into account when developing national programmes.
- (35) Transparency is important in the management of spent fuel and radioactive waste. **Where appropriate,** it should be provided by requiring effective public information and opportunities for all concerned stakeholders to participate in the decision-making processes.
- (36) Cooperation between Member States and at an international level could facilitate and accelerate decision-making through access to expertise and technology.
- (37) Some Member States consider that the sharing of facilities for spent fuel and radioactive waste management, including disposal facilities, is a potentially beneficial option when based on an agreement between Member States concerned.
- (38) When implementing this Directive, Member States should adopt an approach towards a particular radioactive waste or spent fuel management facility or activity that is proportional to the potential hazard presented by that particular facility or activity (graded approach), and make appropriate demonstrations regarding the safety (safety case).
- (39) **Safety should be demonstrated in a** graded approach ~~should provide~~ **providing** a basis for decisions related to ~~the development, operation and closure of a disposal facility and should~~ **the management of spent fuel and radioactive waste and to** allow the identification of areas of uncertainty on which attention needs to be focused to further improve the **safety**. **In the particular case of a disposal facility, that should improve the** understanding of those aspects influencing the safety of the disposal system, including natural (geological) and engineered barriers, and its expected development over the time. The **demonstration of** safety should **be based on** the findings of the safety assessment and information on the robustness and reliability of the safety assessment and the assumptions made therein. **This demonstration will therefore be based on a comprehensive** collection of arguments and evidence in support of the safety of a facility or activity related to the management of spent fuel and radioactive waste.

(39a) A Member State which has no spent fuel, no immediate prospect of having spent fuel and no present or planned activities related to spent fuel, would be under a disproportionate and unnecessary obligation if it had to transpose and implement the provisions of the present Directive with regard to spent fuel. Therefore, such Member States should be exempted, for as long as they have not taken the decision to develop any activity related to nuclear fuel, from the obligation to transpose and implement the provisions related to spent fuel of the present Directive.

- (40) While recognizing that all hazards associated with spent fuel and radioactive waste should be taken into account in the national framework, this Directive does not cover non radiological hazards, which fall under the Treaty on the Functioning of the European Union.
- (41) Maintaining and further developing competences and skills in the management of spent fuel and radioactive waste, as an essential element to ensure high levels of safety, should be based on a combination of learning through operational experience, ~~scientific research and technological development, and technical cooperation between all actors. This can considerably improve the safe management of spent fuel and radioactive waste, as well as contribute to reducing the radio toxicity of high level waste and the spent nuclear fuel.~~
- (41a) Scientific research and technological development, and technical cooperation between all actors may open horizons to improve the safe management of spent fuel and radioactive waste, as well as contribute to reducing the radiotoxicity of high level waste.**
- (42) Peer reviews of national programmes could serve as an excellent means of building confidence and trust in the management of radioactive waste and spent fuel in the European Union, with the aim to develop and exchange experience and ensure high standards.

HAS ADOPTED THIS DIRECTIVE:

(CHAPTER 1
OBJECTIVES, DEFINITIONS AND SCOPE OF APPLICATION)¹

Article 1²

Subject-matter and objectives

- (1) This Directive establishes a Community framework for ensuring responsible and safe management of spent fuel and radioactive waste.
- (2) It ensures that Member States provide for appropriate national arrangements for a high level of safety in spent fuel and radioactive waste management to protect workers and the general public against the dangers arising from ionizing radiation.
- (3) It ensures provision of **appropriate**³ public information and participation with regard to spent fuel and radioactive waste management.
- (4) This Directive supplements the basic standards referred to in Article 30 of the Treaty as regards the safety of spent fuel and radioactive waste and is without prejudice to Directive 96/29/Euratom.

¹ The final drafting of the headings will be decided at the end of examination

² If the Chapter title is accepted, Art 1 shall be reformulated according to BE proposal

³ AT has reservation on the use of the term "appropriate"

Article 2

Scope

- (1) This Directive shall apply to:
 - (a) all stages of spent fuel management, ~~irrespective of spent fuel being reprocessed or directly disposed,~~ when the spent fuel results from the operation of civilian nuclear reactors ~~or is managed in the context of civilian activities~~;
 - (b) all stages of radioactive waste management, from generation up to disposal, when the radioactive waste results from civilian activities ~~or is managed within civilian activities except those materials originating from defence and military programmes that have been clearly separated from civilian waste~~¹;
- (2) Waste from extractive industries which may be radioactive and falls within the scope of Directive 2006/21/EC shall not be subject to this Directive.²
[see new recital 39a and new paragraph 1a of Art. 17]
- (3) This Directive shall not apply to authorised releases.
- (4) The provisions of this Directive which are specific to nuclear safety shall not apply to nuclear installations addressed in Directive 2009/71/Euratom establishing a community framework for the nuclear safety of nuclear installations.**
- (5) Art. 4 (3) of this Directive shall not apply to repatriation of disused sealed sources to the supplier or manufacturer.**

Article 3

Definitions

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

- (1) 'closure' means the completion of all operations at some time after the emplacement of spent fuel or radioactive waste in a disposal facility, including the final engineering or other work required to bring the facility to a condition that will be safe in the long term;
- (2) 'competent regulatory authority' means an authority or a system of authorities designated in a Member State ~~to regulate any aspect~~ in the field of regulation of the safety of spent fuel or radioactive waste management as referred to in Article 6;
- (3) 'disposal' means the emplacement of spent fuel or radioactive waste in an ~~authorised~~ facility without the intention of retrieval;

¹ New text of Art. 2(1) as agreed by FR/UK.

² further clarification from COM is expected

- (3a) 'disposal facility' means any ~~authorized~~ facility or installation the primary purpose of which is radioactive waste disposal;
- (4) 'licence' means any legal document granted under the jurisdiction of a Member state to carry out any activity related to the management of spent fuel or of radioactive waste, or to confer responsibility for siting, design, construction, commissioning, operation, decommissioning or closure of a spent fuel management facility or of a radioactive waste management facility;
- (5) 'licence holder' means a legal or natural person having overall responsibility for any activity or facility related to the management of spent fuel or radioactive waste as specified in a licence;
- ~~(5a) 'owner of spent fuel or radioactive waste' means the producer of spent fuel or radioactive waste or a license holder to whom the overall responsibility for the spent fuel or radioactive waste has been entrusted by competent authorities in accordance with national law.~~⁺
- (5) 'radioactive waste' means radioactive material in gaseous, liquid or solid form for which no further use is foreseen ~~or considered~~² by the Member State or by a legal or natural person whose decision is accepted by the Member State, and which is ~~controlled~~ **regulated** as radioactive waste by a competent regulatory authority under the legislative and regulatory framework of the Member State;
- (7) 'radioactive waste management' means all activities, that relate to handling, pretreatment, treatment, conditioning, storage, or disposal of radioactive waste, excluding off-site transportation;
- (8) 'radioactive waste management facility' means any ~~authorized~~ facility or installation the primary purpose of which is radioactive waste management;
- (9) 'reprocessing' means a process or operation, the purpose of which is to extract fissile and fertile materials from spent fuel for further use;
- ~~(9a) 'safety assessment' means the systematic process that is carried out throughout the design, the siting and operation of an authorized facility that is relevant to protection and safety. The safety assessment includes, but is not limited to, the formal safety analysis;~~
- (10) 'spent fuel' means nuclear fuel that has been irradiated in and permanently removed from a reactor core;
- (11) 'spent fuel management' means all activities that relates to the handling, storage, reprocessing, or disposal of spent fuel, excluding off-site transportation;

² *deletion requested by DE; FR requests to keep it*

- (12) 'spent fuel management facility' means any ~~authorized~~ facility or installation the primary purpose of which is spent fuel management;
- (13) 'storage' means the holding of spent fuel or of radioactive waste in an ~~authorised~~ facility with the intention of retrieval;
- (13a) 'storage facility' means any ~~authorised~~ facility or installation the primary purpose of which is storage of radioactive waste ~~storage~~ **and/or spent fuel**;

Article 4

General principles

- (1) Member States shall establish and maintain national policies on spent fuel and radioactive waste management. They have ultimate responsibility for management of their spent fuel and radioactive waste.
- (1a) Member States shall ensure that the national policies **referred to in paragraph 1** are implemented through a well founded and documented ~~stepwise~~ decision-making process with regard to **all stages of the** ~~on~~ management of spent fuel and radioactive waste ~~the long-term safety~~.
- (2) ~~Member States shall ensure that:~~ **National policies shall be based on the following principles:**
- (a) the generation of radioactive waste is kept to the reasonable practicable minimum, in terms of both activity and volume, by means of appropriate design measures and of operating and decommissioning practices, including recycle and reuse materials;¹
 - (b) the interdependencies between all steps in spent fuel and radioactive waste generation and management are taken into account;
 - ~~(c) no undue burdens are imposed on future generations;²~~
 - (d) spent fuel and radioactive waste are safely managed, including in the long term.
 - (e) the definition of safety measures follows a graded approach**

¹ deletion requested by DE

² This principle is given in recital 30

- (3) **(a)** Radioactive waste shall be disposed of in the Member State in which it was generated, unless at the time of shipment an agreement is concluded between the Member State concerned and another Member State or a third country, **taking into account the criteria established by the Commission in accordance with Article 16(2) of Council Directive 2006/117/Euratom.**
- (b)** In case of export to a third country ¹
- the exporting Member State shall take reasonable measures to be assured that the country concerned has radioactive waste management and disposal programmes which fulfil the objectives of this Directive.
 - **a shipment shall only take place for disposal at a facility that is in operation prior to the shipment, is managed under these programmes and met the requirements set under these programmes.**
 - the exporting Member State **shall inform the Commission accordingly.**

(CHAPTER 2 **OBLIGATIONS)**

Article 5

National framework

- (1) Member States shall establish and maintain a national legislative, regulatory and organisational framework (referred to as the 'national framework') for spent fuel and radioactive waste management that allocates responsibilities and provides for coordination between relevant **competent** state bodies ~~**and state-designated bodies**~~. The national framework shall provide for:
- (a) ~~a~~ national programmes for implementation of the policy on spent fuel and radioactive waste management;
 - (b) **responsibilities for the adoption of** national requirements for the safety of spent fuel and radioactive waste management. The determination on how they are adopted and through which instrument they are applied rests with the competence of the Member States;

¹ *The issue of existing agreements will be addressed in due course.*

- (c) a system of licensing of spent fuel and radioactive waste management activities and/or¹ facilities, including prohibition of a spent fuel or radioactive waste management activities and/or of the operation of a spent fuel or radioactive waste management facility without a licence and, if appropriate, prescribing conditions for further management of the facility;
 - (d) a system of appropriate control, management system, regulatory inspections, documentation and reporting for radioactive waste and spent fuel management facilities, including appropriate measures both for the active life-time and the post-closure periods of the disposal facilities;
 - (e) enforcement actions, including suspension of activities and modification or revocation of a licence together with requirements for alternative solutions that lead to safer situation²;
 - (f) the allocation of responsibilities for the bodies involved in the different steps of spent fuel and of radioactive waste management;
 - (g) national requirements for public information and participation, where appropriate;
 - (h) the financing scheme(s) for spent fuel and radioactive waste management in accordance with Article 10.
- (1a) Member States shall ensure that the national framework requires demonstration to the competent regulatory authority of that the safety of spent fuel and radioactive waste management facilities and activities demonstrates the required level of protection, including post-closure safety of disposal facilities, through an appropriate collection safety assessments and other of arguments and evidences.
- (2) Member States shall ensure that the national framework is maintained and improve when appropriate, taking into account operating experience, insights gained from the safety demonstrations referred to in paragraph 1a, the development of technology and the results of research, when available and relevant.

Article 6

Competent regulatory authority

- (1) Member States shall establish and maintain a ~~appropriate~~ competent regulatory authority in the field of safety of spent fuel and radioactive waste management.

¹ Legal Service checks if 'and/or' is accepted

² New text has been promised by UK

- (2) Member States shall ~~take the appropriate steps to ensure, as appropriate,~~ that the competent regulatory authority is functionally separate, from any other body or organisation concerned with the promotion or ~~exploitation~~ utilization of nuclear energy or radioactive material, including electricity production and radioisotope applications, or with the management of spent fuel and radioactive waste, in order to ensure effective independence from undue influence in its regulatory function.¹
- (3) Member States shall ensure that the competent regulatory authority is given the legal powers and human and financial resources necessary to fulfil its obligations in connection with the national framework described in Article 5(1) (b), (c), (d) and (e).

Article 7

~~Ownership and~~ Licence holders

- (1a) Member States shall ensure that ~~the prime responsibility for owner of spent fuel or radioactive waste is primarily responsible for the overall management~~ rests with the producer of those who generated spent fuel or radioactive waste or a licence holder to whom the overall responsibility for the spent fuel or radioactive waste has been entrusted by competent authorities in accordance with Article 5(1)(f), from its generation to the disposal of radioactive residues.
- (1) Member States shall ensure that the prime responsibility for the safety of spent fuel and radioactive waste management facilities and/or activities rests with the licence holder. This responsibility can not be delegated.
- (2) Member States shall ensure that the national framework requires licence holders to regularly demonstrate to the competent regulatory authority and continuously improve, as far as reasonably achievable, the safety of their activities and/or facilities in a systematic and verifiable manner. The extent of the safety demonstration shall be commensurate with the complexity of the operations and the magnitude of the hazards associated with the facility or activity. The safety demonstration shall cover the development and operation of an activity and the development, operation, and decommissioning of a facility or closure of a disposal facility as well as the post-closure phase of a disposal facility.

¹ To be read together with new recital 32a.

- (3) The actions referred to in paragraph 2 shall require formal submission to the competent regulatory authority, as part of the licence application, that provides the required assurance of safety in the facility or activity, and include verification that measures are in place to prevent accidents and mitigate the consequences of accidents, including verification of the physical barriers and the licence holder's administrative procedures for protection that would have to fail before workers and the general public would be significantly affected by ionizing radiation.
- (4) Member States shall ensure that the national framework requires licence holders to establish and implement integrated management systems, including quality assurance, which give due priority for overall management of spent fuel and radioactive waste to safety and are regularly verified by the competent regulatory authority.
- (5) Member States shall ensure that the national framework requires licence holders to provide for and maintain adequate financial and human resources to fulfil their obligations with respect to the safety of spent fuel and radioactive waste management, laid down in paragraphs 1 to 4.
- (6) Member States shall ensure that revocation of a licence or expiration of its validity shall not exempt the licensee, or one who has had a licence, from compliance with the national requirements for the safety of spent fuel and radioactive waste management, or the licence conditions, unless the competent regulatory authority has taken a specific decision on the transfer or expiry of responsibilities.**

Article 9

Expertise and skills

Member States shall ensure that the national framework includes arrangements for education and training covering the needs of all parties with responsibilities for spent fuel and radioactive waste management in order to maintain and to further develop necessary expertise and skills.

Article 10

Financial resources

Member States shall ensure that the national framework ensures that adequate financial resources are available when needed for the management of spent fuel and radioactive waste, taking due account of the responsibility of spent fuel and radioactive waste producers.

Article 12

Transparency

- (1) Member States shall ensure that information on the management of spent fuel and radioactive waste is made available to workers and the general public. This obligation includes ensuring that the competent regulatory authority informs the public in the fields of its competence. Information shall be made available to the public in accordance with national legislation and international obligations, provided that this does not jeopardise other interests such as, inter alia, security, recognised in national legislation or international obligations.
- (2) Member States shall ensure that the public is given opportunities to participate ~~in public consultation~~ appropriately¹ in the process of decision making on policies regarding the ~~licensing process for~~ spent fuel and radioactive waste management disposal facilities in accordance with Directive 2003/35/EC.²

Article 13

National programmes

- (1) [] Member States shall ensure the implementation of national programmes for the management of spent fuel and radioactive waste (hereafter referred to as 'national programmes'), covering all types of spent fuel and radioactive waste under their jurisdiction and all stages of spent fuel and radioactive waste management from generation to disposal.
- (2) Member States shall regularly review and update the national programmes, taking into account technical and scientific progress as appropriate as well as ~~and shall analyse~~ recommendations, ~~and lessons learned from peer reviews and best~~ and good practices from peer reviews.

¹ AT/ IE have reservation on the use of the term “appropriately”

² Reference to an EC directive is questionable

Article 14

Contents of national programmes

National programmes shall be based on the existing and projected national inventory of radioactive wastes and spent fuel and shall include:

- (1) an inventory of all spent fuel and radioactive waste and previsions of future quantities, including those from decommissioning. The inventory shall clearly indicate the location and amount of the radioactive waste and spent fuel **in accordance with** ~~and, through~~ appropriate classification of the radioactive waste;
- (2) concepts, plans and technical solutions from generation to disposal;
- (3) concepts and plans for the post-closure period of a disposal facility, including ~~time over which institutional controls¹ are retained and~~ the means to be employed to preserve knowledge of that facility in the longer term;

(3a) description of the decision-making process in relation to the supporting safety demonstrations indicating uncertainties;

- (4) description of research, development and demonstration activities that are needed in order to implement solutions for the management of spent fuel and radioactive waste;
- (5) major milestones, clear timeframes and responsibilities for implementation;
- (6) key performance indicators to monitor progress towards implementation;
- (7) assessment of programme costs and the underlying basis and hypotheses for this assessment, which must include a profile over time;
- (8) description of the financing scheme(s) in force ~~to be in accordance with Article 10;~~
- (10) description of the transparency policy **or process as referred in Art. 12.**

Article 15

Notification

- (1) Member States shall notify the Commission of their national programmes and of subsequent significant changes.
- (2) Within six months of the date of notification, the Commission may request clarification and/or express its opinion on whether the content of the national programmes is in accordance with Article 14.
- (3) Within six months from receiving the Commission's reaction Member States shall provide the requested clarification and/or inform the Commission of any revision of the national programmes.
- (4) The Commission will take into account the Member States' clarifications and progress on the national waste management programs, when deciding on the provision of Euratom financial or technical assistance for spent fuel and radioactive waste management facilities or activities.

¹ *see removal definition of 'institutional control'*

Article 16

Reporting

- (1) Member States shall submit a report to the Commission on the implementation of this Directive for the first time by, and every ~~three~~ **six** years thereafter, taking advantage of the review and reporting ~~cycles~~ under the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.
- (2) On the basis of the Member States' reports, the Commission shall submit a report to the Council and the European Parliament on progress made with the implementation of this Directive. On the same basis, the Commission shall also submit an inventory of radioactive waste and spent fuel present in the Community's territory and the future prospects.
- (3) Member States shall periodically, and at least every 10 years, arrange for self-assessments of their national framework, competent regulatory authority, national programme and its implementation, and invite international peer review of their national framework, authority and/or programme with the aim of ensuring that high safety standards are achieved in the safe management of spent fuel and radioactive waste. The outcomes of any peer review shall be reported to the Commission and the Member States, and may be made available to the public where there is no conflict with security and proprietary information.

(CHAPTER 3

FINAL PROVISIONS)

Article 17

Transposition

- (1) Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by **[2 years after the date referred to in Art. 18]**. They shall forthwith inform the Commission thereof. When Member States adopt these measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

(1a) The obligations for transposition and implementation of provisions related to spent fuel of this Directive shall not apply to Cyprus, Estonia, Ireland, Latvia, Luxembourg and Malta for as long as they decide not to develop any activity related to nuclear fuel.¹

¹ This text as well as that of recital 39a was developed with the assistance of the Legal Service.

- (2) 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 and of any subsequent amendments to those provisions.
- (3) Member States shall **first time** notify the Commission their ~~first~~ National Programme covering all the items provided for in Article 14 as soon as possible but not later than four years after the

Article 18

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 19

Addressees

This Directive is addressed to the Member States.

Done at Brussels,

For the Council

The President
