EUROPEAN PARLIAMENT

2004 *2009*

Committee on the Environment, Public Health and Food Safety

19.12.2005 PE 364.995v01-00

AMENDMENTS 21-27

Draft opinion **(PE 360.069v01-00)**
Satu Hassi
Proposal for a Council decision concerning the seventh framework programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities (2007 to 2011)

Proposal for a decision (COM(2005)0119 – C6-0112/2005 – 2005/0044(CNS))

Text proposed by the Commission	Amendments by Parliament
Amendment by Cristina Gutiérrez-Cortines	
Amendment 21 Recital 5	
(5) The Commission Green Paper 'Towards a European strategy for energy supply' highlights the contribution of nuclear power in reducing emissions of greenhouse gases and in reducing Europe's dependence on imported energy.	(5) The Commission Green Paper 'Towards a European strategy for energy supply' highlights the contribution of nuclear power in reducing emissions of greenhouse gases and in reducing Europe's dependence on imported energy. ***The corresponding resolution of the European Parliament supports this approach and highlights the role of nuclear power in meeting the Union's commitments as regards reducing greenhouse gas emissions.***

Or. es

Amendment by Cristina Gutiérrez-Cortines

Amendment 22
Recital 5 a (new)

(5a) The resolution of the European Parliament on the Green Paper 'Towards a European strategy for the security of energy supply' highlights the importance of fusion as a future source of CO2-free energy.

Or. es

Amendment by Richard Seeber

Amendment 23
Article 2, paragraph 2, point (b)

(b) Nuclear fission ***and radiation protection*** with the objective of ***promoting the safe use and exploitation of nuclear fission and other uses of radiation in industry and medicine.***	(b) Nuclear fission with the objective of ***enhancing the level of nuclear safety, and underpinning the development of a common European view on the main issues related to the management and disposal of radioactive waste.***

Or. xm

Justification

Research should not generally be promotional in nature, and promoting nuclear fission technology as such is therefore rejected. The utmost importance must be attached to a suitable focus in the field of radiation protection, and consequently a specific approach should be introduced with its own budget (see also Amendment 25).

Amendment by Richard Seeber

Amendment 24
Article 2, paragraph 2, point (b a) (new)

(ba) Radiation protection with the objective of promoting a safety culture and corresponding research to ensure the proper assessment of risk accompanying the use of radiation in industry and medicine.

Or. en

Justification

See Amendment 23.

Amendment by Richard Seeber

Amendment 25
Article 3, paragraph 1

1.The overall amount for the implementation of the seventh framework programme for the period 2007 to 2011 shall be EUR ***3103*** million. That amount shall be distributed as follows (in EUR million):	1. The overall amount for the implementation of the seventh framework programme for the period 2007 to 2011 shall be EUR ***xxx*** million. That amount shall be distributed as follows (in EUR million):
(a) Fusion energy research ***2167***	(a) Fusion energy research ***xxx***
(b) Nuclear Fission ***and radiation protection 395***	(b) Nuclear Fission ***xxx***
	(ba) Radiation protection **xxx**
(c) Nuclear Activities of the Joint Research Centre ***541***	(c) Nuclear Activities of the Joint Research Centre ***xxx***

Or. xm

Justification

See Amendment 23. Given that the financial perspective has not yet been decided, the amounts have been omitted.

Amendment by Richard Seeber

Amendment 26
Annex I, Nuclear Fission and Radiation Protection, Rationale, paragraphs 1 and 2

Nuclear power currently generates one third of all electricity consumed in the EU ***and is the most significant source of carbon-free base-load electricity presently available. The European nuclear sector as a whole is typified by cutting-edge technology and provides highly skilled employment for several hundred thousand people. As an indigenous and dependable source of energy, nuclear power contributes to the EU's independence and security of supply, with more advanced nuclear technology offering the prospect of significant improvements in efficiency and use of resources, at the same time ensuring even higher safety standards and producing less waste than current designs.***	Nuclear power currently generates one third of all electricity consumed in the EU.
There are***, however***, important concerns that affect the continued use of this energy source in the EU. The key issues are operational reactor safety and management of ***long-lived*** waste, both of which are being addressed through continued work at the technical level, though allied political and societal inputs are also required. In all uses of radiation, throughout industry and medicine alike, the overriding principle ***is*** the protection of man and the environment. All thematic domains to be addressed here are characterised by an overriding concern to ensure high levels of safety. Similarly there are clearly identifiable needs throughout nuclear science and engineering relating to availability of research infrastructures and expertise. In addition, the individual technical areas are linked by key crosscutting topics such as the nuclear fuel cycle, actinide chemistry, risk analysis and safety assessment and even societal and governance issues.	There are important concerns that affect the continued use of this energy source in the EU. The key issues are ***an increased risk of terrorism and proliferation threats,*** operational reactor safety and management of ***radioactive*** waste, ***in particular the long lived,*** both of which are being addressed through continued work at the technical level, though allied political and societal inputs are also required. In all uses of radiation, throughout industry and medicine alike, the overriding principle ***must be*** the protection of man and the environment. All thematic domains to be addressed here are characterised by an overriding concern to ensure high levels of safety. Similarly there are clearly identifiable needs throughout nuclear science and engineering relating to availability of research infrastructures and expertise. In addition, the individual technical areas are linked by key crosscutting topics such as the nuclear fuel cycle, actinide chemistry, risk analysis and safety assessment and even societal and

governance issues.

Or. xm

Justification

The text should be worded as objectively as possible and should therefore be stripped of promotional phrases describing nuclear power as 'carbon-free' or as an 'indigenous' source of energy.

It is not disputed that nuclear power stations emit scarcely any climate-relevant gases when in operation. However, an assessment of any energy generation option must take account of its entire fuel and life cycle. In the case of nuclear power this extends from uranium mining to the disposal of fuel and of the facilities themselves, via long and risky transport routes.There are also various intermediate processes that must be taken into account, such as the production of fuel elements and the processing of nuclear fuel rods. It becomes clear from such an overall assessment that nuclear power is certainly not carbon-free and indeed comes off worse when compared with other types of energy generation.

Amendment by Richard Seeber

Amendment 27
Annex I, Nuclear Fission and Radiation Protection, Activities, Radiation Protection

	Objective
Research, in particular on the risks from low doses, on medical uses and on the management of accidents, to provide the scientific basis for a robust, equitable and socially acceptable system of protection that will not unduly limit the beneficial and widespread uses of radiation in medicine and industry (including the generation of nuclear energy). Research to minimise the threat posed by nuclear and radiological terrorism and mitigate its impact.	***Ensuring a robust and socially acceptable system of protection of man and the environment against the effects of ionising radiation. The improvement of radiation protection continues to be a priority area, in order to keep the advantages gained through past research activities. The Networking of existing resources and the generation of European added value by bringing together research actors.***
	Rationale
	Vigilance is still required to ensure a continuation of the Community's outstanding safety record. Europe has responded to threats of nuclear incidents by investing into radiation protection research to understand basic properties such as dose and risk, to form a sound basis for standards and regulations, and to have sufficient scientific background to mitigate

the consequences of a serious accident. New medical technology using ionising radiation is being introduced very fast in medicine. Patient doses and quality criteria need to be further evaluated to allow the risk-benefit balance to be maintained. Assessment of doses is the basis of nearly all procedures and regulations in radiological protection and in medical applications of ionising radiation. Research in the area of dosimetry remains important in terms of maintaining European competence, both in the area of internal and external dosimetry and to ensure adequate sustainability of expertise. The current system of radiological protection is being challenged by the observation of non-targeted effects of radiation and by questions about the adequacy of the concept of dose to estimate risk.

Activities

- ***Quantification of risks for low and protracted exposures***
  In radiobiology and regarding the health effects of low doses a major challenge is the observation of individual sensitivity to radiation. Specific topics identified in this research area are early and delayed cell and tissue responses to ionising radiation and understanding the development of cancer and non cancer effects. Additional topics are focused on questions directly related to radiation protection recommendations. They require input from other research areas such as epidemiology, radiobiology, dosimetry or radioecology.

- ***Medical Uses of Radiation***

Patient doses and image quality for some of these new techniques are still not known and evaluation in large cohorts of patients should be made. The dose values and their relation to image quality are necessary to allow medical doctors to perform appropriate individual risk-benefit

analyses. This information is also required for further epidemiology studies.

- ***Dosimetry***

Scientific challenges are identified in five areas:
(1) High energy dosimetry for medical therapy applications,
(2) Dosimetry for targeted radiation therapy,
(3) Workplace dosimetry and natural exposures (including cosmic radiation and radon),
(4) Dosimetry in emergency situations (triage) and
(5) Dosimetry and instrumentation. In most dosimetric procedures, there exists a strong correlation between the different application areas. In all fields of radiation dosimetry there is a joint interest in questions of dosimetric quantities and modern dosimetric methods.

- ***Emergency Management, Rehabilitation and Radioecology***

The challenges identified are:
(1) to protect man and the environment from adverse effects of radioactive contamination of ecosystems,
(2) to assess the long-term consequences of radioactive contamination of ecosystems by long-lived radionuclides from repositories for nuclear waste and for NORM situations, and
(3) to improve fundamental knowledge of key processes.“

Or. xm

Justification

See Amendment 23.