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*Committee on the Environment, Public Health and Food Safety*

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**2012/0074(NLE)**

18.12.2012

# **AMENDMENTS**

## **40 - 90**

**Draft report**  
**Michèle Rivasi**  
(PE489.702v01)

requirements for the protection of the health of the general public with regard  
to radioactive substances in water intended for human consumption

Proposal for a directive  
(COM(2012)0147 – C7-0105/2012 – 2012/0074(NLE))

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**EN**

*United in diversity*

**EN**

AM\_Com\_LegReport

**Amendment 40**  
**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**  
**Citation 1**

*Text proposed by the Commission*

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

*Amendment*

Having regard to the Treaty *on the Functioning of the European Union* and in particular *Article 192(1) thereof*,

Or. en

**Amendment 41**  
**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**  
**Recital 1**

*Text proposed by the Commission*

(1) The ingestion of water is one of the pathways of incorporation of radioactive substances into the human body. In accordance with 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 radiation, the contribution to the exposure of the population as a whole from practices which involve a risk from ionizing radiation must be kept as low as reasonably achievable.

*Amendment*

(1) The ingestion of water is one of the pathways of incorporation of radioactive substances into the human body. ***Ingestion of radioactive isotopes, or radionuclides can lead to a number of health problems.*** In accordance with 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 radiation, the contribution to the exposure of the population as a whole from practices which involve a risk from ionizing radiation must be kept as low as reasonably achievable.

Or. en

**Amendment 42**  
**Claudiu Ciprian Tănăsescu**

**Proposal for a directive  
Recital 1 a (new)**

*Text proposed by the Commission*

*Amendment*

***(1a) Tritium cannot be filtered out of water.***

Or. en

**Amendment 43  
Claudiu Ciprian Tănăsescu**

**Proposal for a directive  
Recital 1 b (new)**

*Text proposed by the Commission*

*Amendment*

***(1b) Filtering out radioactive isotopes from water leads to filters becoming radioactive waste that must then be disposed of with caution and in accordance with the procedures in force.***

Or. en

**Amendment 44  
Claudiu Ciprian Tănăsescu**

**Proposal for a directive  
Recital 1 c (new)**

*Text proposed by the Commission*

*Amendment*

***(1c) The process of removal of radioactive isotopes from water depends on national laboratories, regular update of measurements and research.***

Or. en

**Amendment 45**  
**Claudiu Ciprian Tănăsescu, Judith A. Merkies**

**Proposal for a directive**  
**Recital 1 d (new)**

*Text proposed by the Commission*

*Amendment*

***(1d) The information provided by the Member States in the triennial report on the Drinking Water Directive is incomplete or missing with regard to levels of radioactivity in drinking water.***

Or. en

**Amendment 46**  
**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**  
**Recital 1 e (new)**

*Text proposed by the Commission*

*Amendment*

***(1e) In order to reduce the costs of treating drinking water, preventive measures are necessary.***

Or. en

**Amendment 47**  
**Michèle Rivasi**  
on behalf of the Verts/ALE Group

**Proposal for a directive**  
**Recital 3**

*Text proposed by the Commission*

*Amendment*

(3) Indicator parameters have already been set out in Annex I, Part C relating to radioactive substances, as well as the related monitoring provisions in Annex II to Council Directive 98/83/EC of 3

(3) Indicator parameters have already been set out in Annex I, Part C relating to radioactive substances, as well as the related monitoring provisions in Annex II to Council Directive 98/83/EC of 3

November 1998 on the quality of water intended for human consumption. However, *those parameters fall within the scope of the basic standards defined in Article 30 of the Euratom Treaty.*

November 1998 on the quality of water intended for human consumption. However, *unlike the provisions of said directive, the requirements regarding monitoring frequencies, methods and points have never been adopted.*

Or. fr

#### *Justification*

*See justification to amendment 2 on the change of the legal base. The related monitoring provisions have never been defined or adopted.*

#### **Amendment 48** **Claudiu Ciprian Tănăsescu**

#### **Proposal for a directive** **Recital 4**

##### *Text proposed by the Commission*

(4) The requirements for monitoring levels of radioactivity in water intended for human consumption should therefore be *adopted in specific* legislation *that ensures the* uniformity, coherence and completeness of *radiation* protection legislation under the *Euratom Treaty*.

##### *Amendment*

(4) The requirements for monitoring levels of radioactivity in water intended for human consumption should therefore be *correlated with the requirements laid down in existing* legislation *for other chemical substances found in water, which have a detrimental effect on the environment and on human health. This measure would ensure the* uniformity, coherence and completeness of *human health and environmental* protection legislation under the *Treaty on the Functioning of the European Union*.

Or. en

#### **Amendment 49** **Claudiu Ciprian Tănăsescu**

#### **Proposal for a directive** **Recital 5**

*Text proposed by the Commission*

(5) The provisions of this Directive adopted under the *Euratom* Treaty should supersede those of the Directive 98/83/EC as regards the contamination of drinking water by radioactive substances.

*Amendment*

(5) The provisions of this Directive adopted under the Treaty *on the Functioning of the European Union* should supersede those of the Directive 98/83/EC as regards the contamination of drinking water by radioactive substances.

Or. en

**Amendment 50**  
**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**  
**Recital 6**

*Text proposed by the Commission*

(6) In the event of non-compliance with a parameter that has an indicator function, the Member State concerned should assess whether that non-compliance poses any risk to human health and, where necessary, take remedial action to restore the quality of the water.

*Amendment*

(6) In the event of non-compliance with a parameter that has an indicator function, the Member State concerned should assess whether that non-compliance poses any risk to human health and, where necessary, take remedial action to restore the quality of the water; *consumers should be informed immediately of the risks, the measures already taken by the authorities and the time necessary for the remedial action to take effect and the time expected.*

Or. en

**Amendment 51**  
**Michèle Rivasi**  
on behalf of the Verts/ALE Group

**Proposal for a directive**  
**Recital 6**

*Text proposed by the Commission*

(6) In the event of non-compliance with a parameter that has an indicator function, the Member State concerned should **assess whether** that non-compliance **poses any** risk to human health and, **where necessary**, take **remedial** action **to restore the** quality **of the water**.

*Amendment*

(6) In the event of non-compliance with a parameter that has an indicator function, the Member State concerned should **be bound to determine the cause thereof, to assess the level of the** risk to human health **and the possibilities for intervention** and, **on the basis of these findings**, take action **to ensure the water supply complies with the** quality **criteria laid down in this** **directive**.

Or. fr

*Justification*

*Compte tenu des propriétés cancérigènes des substances radioactives et des relations linéaire et quadri-linéaire sans seuil entre la dose et l'effet qui sont à la base du système de radioprotection, il ne s'agit de déterminer si un risque existe mais d'évaluer son niveau en fonction notamment de l'importance du dépassement de la valeur paramétrique. L'objectif d'assurer la distribution d'une eau conforme est préférée à celui de « restaurer la qualité de l'eau » car, dans certains cas, il sera plus simple de recourir à une autre source d'alimentation que de traiter l'eau de la source existante.*

**Amendment 52**

**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**

**Recital 7**

*Text proposed by the Commission*

(7) Consumers should be adequately and appropriately informed of the quality of water intended for human consumption.

*Amendment*

(7) Consumers should be adequately and appropriately informed of the quality of water intended for human consumption; **updated information regarding areas at risk with potential sources of radioactive contamination and regional water quality should be made available to consumers at any time by local administrations.**

Or. en



**Amendment 53**  
**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**  
**Recital 9**

*Text proposed by the Commission*

(9) Each Member State should establish monitoring programmes to check that water intended for human consumption meets the requirements of this Directive.

*Amendment*

(9) Each Member State should establish **robust** monitoring programmes to check **on a regular basis**, that water intended for human consumption meets the requirements of this Directive.

Or. en

**Amendment 54**  
**Judith A. Merkies, Claudiu Ciprian Tănăsescu**

**Proposal for a directive**  
**Article 2 – paragraph 1 a (new)**

*Text proposed by the Commission*

*Amendment*

***In addition to the definitions referred to in paragraph 1, the following definitions shall apply:***

***(a) 'radioactive substance' means any substance that contains one or more radionuclides the activity or concentration of which cannot be disregarded as far as radiation protection is concerned;***

***(b) 'total indicative dose' means the committed effective dose for one year of ingestion resulting from all the radionuclides whose presence in a water supply has been detected, both of natural and artificial origin, excluding tritium, potassium-40, radon and short-lived radon decay products;***

***(c) 'parametric value' means the value at which Member States shall assess whether the presence of radioactive substances in***

*water intended for human consumption poses a risk to human health and, where necessary, shall take remedial action to improve the quality of water to a level which complies with the requirements for the protection of human health from radiation.*

Or. en

**Amendment 55**  
**Erik Bánki**

**Proposal for a directive**  
**Article 2 – paragraph 1 b (new)**

*Text proposed by the Commission*

*Amendment*

*"Indicative Dose" means the committed effective dose for one year of ingestion resulting from all the radionuclides whose presence in a water supply has been detected, both of natural and artificial origin, excluding tritium, potassium-40, radon and short-lived radon decay products.*

Or. en

*Justification*

*For the sake of clarity, a new definition is needed for ID.*

**Amendment 56**  
**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**  
**Article 4 – paragraph 1**

*Text proposed by the Commission*

*Amendment*

Without prejudice to the provisions laid down in Article 6(3)a of Directive

Without prejudice to the provisions laid down in Article 6(3)a of Directive

96/29/Euratom, Member States shall take all measures necessary to establish an appropriate monitoring programme to ensure that water intended for human consumption complies with the parametric values established in accordance with this Directive.

96/29/Euratom, Member States shall take all measures necessary to establish an appropriate monitoring programme to ensure that water intended for human consumption complies with the parametric values established in accordance with this Directive. ***A guide of best practices shall be provided to the Member States.***

Or. en

**Amendment 57**  
**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**  
**Article 4 – paragraph 1 a (new)**

*Text proposed by the Commission*

*Amendment*

***New technologies should be developed which would minimise the time needed to isolate nuclear waste from the environment following a natural disaster.***

Or. en

**Amendment 58**  
**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**  
**Article 4 – paragraph 1 b (new)**

*Text proposed by the Commission*

*Amendment*

***Member States shall take all measures necessary to ensure that radioactive waste from filtered drinking water is disposed of according to the provisions in force; for this purpose the Commission shall provide guidelines for this process to the Member States.***

Or. en

**Amendment 59**  
**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**  
**Article 4 – paragraph 1 c (new)**

*Text proposed by the Commission*

*Amendment*

***Member States shall carry out risk assessments of radioactive waste deposits that could have an impact on ground water or other sources of drinking water that could be endangered by natural disasters.***

Or. en

**Amendment 60**  
**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**  
**Article 4 – paragraph 1 d (new)**

*Text proposed by the Commission*

*Amendment*

***The Commission shall carry out a study on the cocktail effects of other chemical substances combined with radioactive substances in water intended for human consumption; based on the results the Commission should update the respective legislation.***

Or. en

**Amendment 61**  
**Claudiu Ciprian Tănăsescu, Judith A. Merkies**

**Proposal for a directive**  
**Article 4 – paragraph 1 e (new)**

*Text proposed by the Commission*

*Amendment*

***The Commission shall carry out an evaluation of the implementation of the current Water Framework Directive in the Member States.***

Or. en

**Amendment 62**

**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**

**Article 6 – paragraph 1**

*Text proposed by the Commission*

*Amendment*

Member States shall ensure regular monitoring of water intended for human consumption in accordance with Annex II in order to check that the concentrations of radioactive substances do not exceed the parametric values laid down in accordance with Article 5.

Member States shall ensure regular ***and accurate*** monitoring of water intended for human consumption in accordance with Annex II in order to check that the concentrations of radioactive substances do not exceed the parametric values laid down in accordance with Article 5.

Or. en

**Amendment 63**

**Christa Klauß**

**Proposal for a directive**

**Article 6 – paragraph 1 a (new)**

*Text proposed by the Commission*

*Amendment*

***The monitoring frequency can be adapted through a risk –based approach. In that case Member States shall communicate the grounds for its decision, and the relevant results of monitoring programmes to the Commission.***

Or. en

**Amendment 64**  
**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**  
**Article 8 – paragraph 2**

*Text proposed by the Commission*

2. Member States shall ensure that all laboratories analysing samples of water intended for human consumption have a system of analytical quality control. They shall ensure that that system is subject to *occasional* checks by an independent controller approved by the competent authority for that purpose.

*Amendment*

2. Member States shall ensure that all laboratories analysing samples of water intended for human consumption have a system of analytical quality control. They shall ensure that that system is subject to *random* checks, *at least once per year*, by an independent controller approved by the competent authority for that purpose.

Or. en

**Amendment 65**  
**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**  
**Article 9 – paragraph 1 a (new)**

*Text proposed by the Commission*

*Amendment*

***1a. Information on the risk assessment of nuclear plants and the surrounding areas, as regards radioactive substances in the water shall be made available to the public.***

Or. en

**Amendment 66**  
**Claudiu Ciprian Tănăsescu, Judith A. Merkies**

**Proposal for a directive**  
**Article 9 – paragraph 1 b (new)**

*Text proposed by the Commission*

*Amendment*

***1b. Member States shall ensure that information regarding the presence of radioactive substances in water intended for human consumption is included in the triennial report on the quality of water, as required by Article 13(2) of Directive 98/83/EC.***

Or. en

**Amendment 67**  
**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**  
**Article 9 – paragraph 1 c (new)**

*Text proposed by the Commission*

*Amendment*

***1c. Member States shall provide consumers with a call centre for reporting incidents of possible radioactive contamination in water, as well as what health measures should be taken with regard to ingestion of contaminated water.***

Or. en

**Amendment 68**  
**Christa Kläß**

**Proposal for a directive**  
**Article 9 – paragraph 2**

*Text proposed by the Commission*

*Amendment*

2. Where a failure to comply with the parametric values laid down in accordance with Article 5 occurs, the Member State shall assess whether the failure poses a risk to human health. In the event that there is

2. Where a failure to comply with the parametric values laid down in accordance with Article 5 occurs, the Member State shall assess whether the failure poses a risk to human health. In the event that there is

such a risk, the Member State shall take remedial action to restore the quality of the water.

such a risk, the Member State shall take remedial action, ***based on the subsidiarity principle***, to restore the quality of the water.

***When taking remedial actions for radon, the following flexibility to the Member States shall be considered:***

***(a) Between concentrations of more than 100 to less than 1000 Bq/l, Member States should set a reference level for radon to be used for consideration whether remedial action is needed to protect human health;***

***(b) For concentrations in excess of 1000 Bq/l for radon, remedial action is deemed to be justified on radiological protection grounds;***

***(c) Above reference concentration of 0.1 Bq/l for polonium-210 and 0.2 Bq/l for lead-210, a consideration should be given to whether remedial action is needed to protect human health.***

Or. en

#### *Justification*

*The dose from radon present in drinking-water is normally received from inhalation rather than ingestion, therefore according to the WHO, it is more appropriate to measure the radon concentration in the air rather than in drinking water. This shall be reflected in the proposed legislation giving more flexibility for Member States to take appropriate remedial actions and taking into account the uncertainty in the evaluation of radon levels in water.*

**Amendment 69**  
**Michèle Rivasi**  
on behalf of the Verts/ALE Group

**Proposal for a directive**  
**Article 9 – paragraph 2**



*Text proposed by the Commission*

2. Where a failure to comply with the parametric values ***laid down in accordance with Article 5 occurs***, the Member State shall assess ***whether the failure poses a risk to human health. In the event that there is such a risk, the Member State shall take remedial action to restore the quality of the water.***

*Amendment*

2. Where ***there is*** a failure to comply with the parametric values ***defined for radon and for the total indicative dose (TID) from natural sources***, the Member State shall assess ***the level of the risk to human health and the possibilities for intervention and on the basis of these findings*** shall take action ***to ensure the water supply complies with the quality criteria laid down in this directive.***

***Where there is a failure to comply with the parametric values defined for tritium and for the TID originating from human activities, the Member State shall ensure that the investigation which is to be launched immediately establishes the nature, scale and dosimetric impact of the pollution. That investigation shall take into account all the environments liable to be affected and all exposure pathways. The Member State shall ensure that the necessary corrective action is taken to ensure that the water again meets the parametric values. Solutions should be centred on tackling the pollution at source.***

Or. fr

*Justification*

*Contrairement à la radioactivité naturelle, la radioactivité provenant des activités humaines est un problème qui peut être adressé facilement. Si les analyses démontrent un dépassement des valeurs paramétriques, c'est évident qu'il y a une défaillance quelque part, qui doit être adressé pour éviter des futurs problèmes plus graves. Il faut prendre en compte toutes les voies d'exposition car, s'il y a une contamination de l'eau potable, il peut y avoir aussi des contaminations des produits agricoles par de l'eau d'irrigation etc. Si les contrôles signalent une source de contamination artificielle, il est indispensable de rechercher le responsable.*

**Amendment 70**  
**Pavel Poc**

**Proposal for a directive**  
**Article 9 – paragraph 2**

*Text proposed by the Commission*

2. Where a failure to comply with the parametric values laid down in accordance with Article 5 occurs, the Member State shall assess whether the failure poses a risk to human health. In the event that there is such a risk, the Member State shall take remedial action to restore the quality of the water.

*Amendment*

2. Where a failure to comply with the parametric values laid down in accordance with Article 5 occurs, the Member State shall ***immediately*** assess whether the failure poses a risk to human health. In the event that there is such a risk, the Member State shall take remedial action to restore the quality of the water.

Or. en

**Amendment 71**  
**Claudiu Ciprian Tănăsescu**

**Proposal for a directive**  
**Article 9 – paragraph 3**

*Text proposed by the Commission*

3. Where the risk to human health cannot be regarded as trivial, the Member State shall ensure that consumers are notified.

*Amendment*

3. Where the risk to human health cannot be regarded as trivial, the Member State, ***together with the responsible actor(s)*** shall ensure that consumers are notified, ***given complete information on how to cope with the problems encountered.***

Or. en

**Amendment 72**  
**Pavel Poc**

**Proposal for a directive**  
**Article 9 – paragraph 3**

*Text proposed by the Commission*

3. Where the risk to human health cannot be regarded as trivial, the Member State shall ensure that consumers are notified.

*Amendment*

3. Where the risk to human health cannot be regarded as trivial, the Member State shall ensure that consumers are notified

*immediately and that all relevant information related to the risk to human health are published and made available on the internet as soon as possible.*

Or. en

**Amendment 73**  
**Jean-Pierre Audy**

**Proposal for a directive**  
**Article 10 – paragraph 1 – subparagraph 1**

*Text proposed by the Commission*

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by [one year after the date referred to in Article 11- specific date to be inserted by the Publications Office] at the latest. They shall forthwith communicate to the Commission the text of those provisions.

*Amendment*

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by [one year after the date referred to in Article 11- specific date to be inserted by the Publications Office] at the latest. They shall forthwith communicate the text of these provisions to the Commission, **which shall promptly notify the European Parliament.**

Or. fr

**Amendment 74**  
**Claudiu Ciprian Tănăsescu, Daciana Octavia Sârbu**

**Proposal for a directive**  
**Article 10 – paragraph 1 – subparagraph 1**

*Text proposed by the Commission*

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by [**one year** after the date referred to in Article 11- specific date to be inserted by the Publications Office] at the latest. They shall forthwith communicate to the Commission the text of those

*Amendment*

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 11- specific date to be inserted by the Publications Office] at the latest. They shall forthwith communicate to the Commission the text of those

provisions.

provisions.

Or. en

**Amendment 75**  
**Jean-Pierre Audy**

**Proposal for a directive**  
**Article 10 – paragraph 2**

*Text proposed by the Commission*

*Amendment*

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

2. Member States shall communicate to the Commission the texts of the main provisions of national law which they adopt in the field covered by this Directive.  
***These texts shall be forwarded to the European Parliament forthwith.***

Or. fr

**Amendment 76**  
**Christa Kläß**

**Proposal for a directive**  
**Annex I**

*Text proposed by the Commission*

Parametric values for **radon and** tritium and parametric values for Total Indicative Dose, for other radioactive substances, in water intended for human consumption

Radioactivity

Parameter	Parametric value	Unit	Notes
<b>Radon</b>	<b>100</b>	<b>Bq/l</b>	
Tritium	100	Bq/l	
Total indicative dose	0,10	mSv/year	(Note 1)

*Amendment*

**1.** Parametric values for tritium and parametric values for Total Indicative Dose, for other radioactive substances, in water intended for human consumption

## Radioactivity

Parameter	Parametric value	Unit	Notes
Tritium	100	Bq/l	
Total indicative dose	0,10	mSv/year	(Note 1)

Or. en

### *Justification*

*According to the world-wide practices and recommendations, both (a) WHO-guidelines for drinking water quality (2011 edition) and (b) US EPA National Primary Drinking Water Regulations, it is recommended not to measure Radon concentration in drinking water supplies. According to the WHO, it is more appropriate to measure the radon concentration in air rather than in drinking water, as the dose from radon present in drinking-water is normally received from inhalation rather than ingestion. The percentage of radon present in drinking-water that is released into indoor air will depend on local conditions, such as the total consumption of water in the house, the volume of the house and its ventilation rate, and is likely to be highly variable.*

**Amendment 77**  
**Christa Klaß**

**Proposal for a directive**  
**Annex I – paragraph 2 (new)**

*Text proposed by the Commission*

*Amendment*

***2. Member States may set a parametric value for radon which is judged inappropriate to be exceeded and below which optimization of protection should be ensured, without compromising water supply on a national or regional scale. The parametric level set by a member state may be higher than 100 Bq/l but lower than 1000 Bq/l.***

Or. en

### *Justification*

*According to the world-wide practices and recommendations, both (a) WHO-guidelines for drinking water quality (2011 edition) and (b) US EPA National Primary Drinking Water Regulations, it is recommended not to measure Radon concentration in drinking water supplies. According to the WHO, it is more appropriate to measure the radon concentration in air rather than in drinking water, as the dose from radon present in drinking-water is normally received from inhalation rather than ingestion. The percentage of radon present in drinking-water that is released into indoor air will depend on local conditions, such as the total consumption of water in the house, the volume of the house and its ventilation rate, and is likely to be highly variable.*

**Amendment 78**  
**Miroslav Mikolášik**

**Proposal for a directive**  
**Annex I – row 2**

<i>Text proposed by the Commission</i>				
	<b>Radon</b>	100	Bq/l	
<i>Amendment</i>				
	<b>222Rn</b>	100	Bq/l	

Or. en

### *Justification*

*Specification as 222Rn is the only one isotope of radon relevant to protection of human health in water.*

**Amendment 79**  
**Miroslav Mikolášik**

**Proposal for a directive**  
**Annex I – rows 2 and 3**

<i>Text proposed by the Commission</i>				
	Radon	<b>100</b>	Bq/l	
	Tritium	<b>100</b>	Bq/l	
<i>Amendment</i>				
	Radon	<b>20</b>	Bq/l	
	Tritium	<b>20</b>	Bq/l	

Or. en

*Justification*

*Parametric values proposed do not sufficiently take into account children's, especially infants', population. It is necessary to set up stronger limits in order to guarantee higher level of health protection for all age groups.*

**Amendment 80**  
**Michèle Rivasi**

on behalf of the Verts/ALE Group

**Proposal for a directive**

**Annex I – row 3**

<i>Text proposed by the Commission</i>				
	Tritium	<b>100</b>	Bq/l	
<i>Amendment</i>				
	Tritium	<b>10</b>	Bq/l	

Or. fr

*Justification*

*Contamination through human activities clearly exists when there is activity of 10 Bq/l of tritium. Since this threshold is being established for investigative, rather than health, purposes, the value should be set at a fairly low level so that action can be taken before the contamination spreads or involves radionuclides with higher radio-toxicity. Abnormally high levels must trigger investigations aimed at preventing future health risks.*

**Amendment 81**  
**Michèle Rivasi**

on behalf of the Verts/ALE Group

**Proposal for a directive**

**Annex I – row 4**

<i>Text proposed by the Commission</i>				
Total indicative dose	<b>0,10</b>	<b>mSv/year</b>	<b>(Note 1)</b>	
Note 1: Excluding tritium, potassium -40, radon and short-lived radon decay products				
<i>Amendment</i>				
Total indicative dose ( <i>from natural sources</i> )	<b>0,10</b>	<b>mSv/year</b>	<b>(Note 1)</b>	
Note 1: Excluding tritium, potassium-40, radon and short-lived radon decay products				

Or. fr

*Justification*

*Il est nécessaire de définir des références de dose différentes pour la radioactivité naturelle et la radioactivité ajoutée par les activités humaines. Un niveau de dose de 100 µSv/an correspond en effet à un niveau de risque cancérigène élevé, supérieur à ce qui est habituellement retenu par les autorités sanitaires. Au vu de ces estimations, il faudrait abaisser d'un facteur 10 environ le niveau de la dose totale indicative. Pour les eaux provenant d'aquifères souterrains, cet objectif risque de se heurter à un problème de faisabilité et de coûts. S'agissant d'une première étape, on peut retenir une valeur de 100 µSv/an permettant aux Etats membres d'établir un état des lieux de la situation de leurs ressources en eau potable en regard de la radioactivité naturelle.*

**Amendment 82**  
**Michèle Rivasi**

on behalf of the Verts/ALE Group

**Proposal for a directive**

**Annex I – row 4 a (new)**



<i>Text proposed by the Commission</i>				
<i>Amendment</i>				
<b>Total indicative dose (from human activity sources)</b>	<b>0,01</b>	<b>mSv/year</b>		

Or. fr

### *Justification*

*Le fonctionnement normal des installations et activités nucléaires fait l'objet d'un traitement et d'une réglementation distincte de la radioactivité naturelle, que ce soit dans les recommandations de la CIPR ou dans la réglementation Euratom. S'agissant de l'impact sur l'eau potable du fonctionnement normal de ces installations, le dépassement de la valeur de 0,01 mSv/an traduit un grave dysfonctionnement, une défaillance dans la gestion des effluents ou des déchets radioactifs auquel il faut mettre fin le plus rapidement possible (d'autant que l'eau n'est pas forcément le seul compartiment affecté). Contrairement à la radioactivité naturelle, il est généralement possible de mettre fin au problème en intervenant sur le terme source.*

### **Amendment 83** **Jean-Pierre Audy**

#### **Proposal for a directive** **Annex II – paragraph 1 – subparagraph 1**

#### *Text proposed by the Commission*

A Member State is not required to monitor drinking water for tritium or radioactivity to establish total indicative dose where it is satisfied on the basis of other monitoring that the levels of both tritium and of the calculated total indicative dose are well below the parametric value. Monitoring drinking water for radon is not required where a Member State is satisfied on the basis of other monitoring that the levels of

#### *Amendment*

A Member State is not required to monitor drinking water for tritium or radioactivity to establish total indicative dose where it is satisfied on the basis of other monitoring that the levels of both tritium and of the calculated total indicative dose are well below the parametric value. Monitoring drinking water for radon is not required where a Member State is satisfied on the basis of other monitoring that the levels of

radon are well below the parametric value. In these cases, it shall communicate the grounds for its decision to the Commission, including the results of the other monitoring carried out.

radon are well below the parametric value. In these cases, it shall communicate the grounds for its decision to the Commission, including the results of the other monitoring carried out. ***This information shall be forwarded to the European Parliament by the Commission.***

Or. fr

**Amendment 84**  
**Jean-Pierre Audy**

**Proposal for a directive**  
**Annex II – paragraph 3 – subparagraph 3**

*Text proposed by the Commission*

Where results of other surveillance programmes or investigations than those required as provided in the first paragraph of this point are used to ensure compliance with this Directive, the Member State shall communicate the grounds for its decision to the Commission, including the relevant results of these monitoring programmes or investigations.

*Amendment*

Where results of other surveillance programmes or investigations than those required as provided in the first paragraph of this point are used to ensure compliance with this Directive, the Member State shall communicate the grounds for its decision to the Commission, including the relevant results of these monitoring programmes or investigations. ***This information shall be forwarded to the European Parliament by the Commission.***

Or. fr

**Amendment 85**  
**Michèle Rivasi**  
on behalf of the Verts/ALE Group

**Proposal for a directive**  
**Annex III – paragraph 1 – subparagraph 2**

*Text proposed by the Commission*

***If the gross alpha and the gross beta activity are less than 0.1 Bq/l and 1.0 Bq/l respectively, the Member State may***

*Amendment*

***Member States which wish to make use of screening techniques that are based on measuring total alpha and total beta***

*assume that the TID is less than the parametric indicator value of 0.1 mSv/year and no radiological investigation is needed unless it is known from other sources of information that specific radionuclides are present in the water supply and are liable to cause a TID in excess of 0.1 mSv/year.*

*activity need to pay attention to possible metrological limits (e.g. failure to take into account low energy beta rays), to select correctly the guideline value below which water is considered compliant, in particular for total beta activity, and take account of the cumulated impact of beta and alpha activity.*

Or. fr

**Amendment 86**  
**Christa Kläß**

**Proposal for a directive**  
**Annex III – paragraph 1 – subparagraph 2**

*Text proposed by the Commission*

If the gross alpha and the gross beta activity are less than **0.1** Bq/l and 1.0 Bq/l respectively, the Member State may assume that the TID is less than the parametric indicator value of 0.1 mSv/year and no radiological investigation is needed unless it is known from other sources of information that specific radionuclides are present in the water supply and are liable to cause a TID in excess of 0.1 mSv/year.

*Amendment*

If the gross alpha and the gross beta activity are less than **0.5** Bq/l and 1.0 Bq/l respectively, the Member State may assume that the TID is less than the parametric indicator value of 0.1 mSv/year and no radiological investigation is needed unless it is known from other sources of information that specific radionuclides are present in the water supply and are liable to cause a TID in excess of 0.1 mSv/year.

Or. en

*Justification*

*The screening methodology for compliance for gross alpha activity differs from WHO recommendations. According to WHO, the initial screening gross alpha activity threshold values is different and is less 0.5 Bq/l. Having this WHO threshold, according to WHO, no further action is required if the measured activity concentrations are below the screening levels of 0.5 Bq/l for gross alpha activity. The concern is that, using lower threshold values, such as 0.1 Bq/l for gross alpha activity, it will increase the incidence of cost-intensive determinations of concentrations of individual radionuclides. This would force operators to make unnecessary water quality control activities*

**Amendment 87**  
**Christa Klaß**

**Proposal for a directive**  
**Annex III – paragraph 1 – subparagraph 3**

*Text proposed by the Commission*

If the gross alpha activity exceeds **0.1** Bq/l or the gross beta activity exceeds 1.0 Bq/l, analysis for specific radionuclides shall be required. The radionuclides to be measured shall be defined by Member States taking into account all relevant information about likely sources of radioactivity. Since elevated levels of tritium may indicate the presence of other artificial radionuclides, tritium, gross alpha activity and gross beta activity should be measured in the same sample.

*Amendment*

If the gross alpha activity exceeds **0.5** Bq/l or the gross beta activity exceeds 1.0 Bq/l, analysis for specific radionuclides shall be required. The radionuclides to be measured shall be defined by Member States taking into account all relevant information about likely sources of radioactivity. Since elevated levels of tritium may indicate the presence of other artificial radionuclides, tritium, gross alpha activity and gross beta activity should be measured in the same sample.

Or. en

*Justification*

*The screening methodology for compliance for gross alpha activity differs from WHO recommendations. According to WHO, the initial screening gross alpha activity threshold values is different and is less 0.5 Bq/l. Having this WHO threshold, according to WHO, no further action is required if the measured activity concentrations are below the screening levels of 0.5 Bq/l for gross alpha activity. The concern is that, using lower threshold values, such as 0.1 Bq/l for gross alpha activity, it will increase the incidence of cost-intensive determinations of concentrations of individual radionuclides. This would force operators to make unnecessary water quality control activities*

**Amendment 88**  
**Michèle Rivasi**  
on behalf of the Verts/ALE Group

**Proposal for a directive**  
**Annex III – paragraph 1 – subparagraph 4**

*Text proposed by the Commission*

***In replacement of gross alpha and gross beta activity screening discussed above,***

*Amendment*

***1.1. Selection of the guideline value***

*Member States may decide to use other reliable screening methods for radionuclides to indicate the presence of radioactivity in drinking water. If one of the activity concentrations exceeds 20% of its reference concentration or the tritium concentration exceeds its parametric value of 100 Bq/l, an analysis of additional radionuclides shall be required. The radionuclides to be measured shall be defined by Member States taking into account all relevant information about likely sources of radioactivity.*

*With regard to total beta activity and residual total beta activity (following deduction of the potassium-40 component), the use of a guideline value of 1 Bq/l is not necessarily a guarantee of compliance with the parametric value of 0.01 mSv/year. The Member State must verify the activity concentration of lead-210 and radium-228, which are two radionuclide beta emitters of high radio-toxicity. For an adult consumer, the TID of 0.1 mSv/year is reached when the activity concentration in water reaches 0.2 Bq/l (cumulative activity of radium-228 and lead-210) – i.e. one fifth of the guideline value of 1 Bq/l; for the critical group of infants aged less than 1 year old, assuming a consumption of 55 cl of water per day, TID is reached when radium-228 activity nears 0.02 Bq/l or lead-210 activity approaches 0.06 Bq/l.*

*With regard to total alpha activity, the Member State must verify the polonium-210 component, as the use of a guideline value of 0.1 Bq/l is not necessarily a guarantee of compliance with the parametric value of 0.01 mSv/year. For the critical group of infants aged less than 1 year old, assuming a consumption of 55 cl of water per day, the TID is exceeded when activity concentration of polonium-210 reaches 0.02 Bq/l, i.e. one fifth of the guideline value of 0.1 Bq/l.*

**Amendment 89**  
**Michèle Rivasi**  
on behalf of the Verts/ALE Group

Proposal for a directive  
**Annex III – paragraph 2 a (new)**

*Text proposed by the Commission*

*Amendment*

***2a. Radiological significance of human activity***

***The radionuclides to be measured shall be defined by Member States on the basis of all the information gathered about potential sources of anthropogenic radiation.***

***2a.1. Tritium monitoring***

***A specific analysis shall be conducted to quantify the level of tritium as part of the reference analysis, and when a periodic check on this parameter is required. An activity concentration in excess of 10 Bq/l is indicative of an anomaly whose origin must be investigated and which may indicate the presence of other artificial radionuclides. The threshold parametric value beyond which the source of the contamination must be investigated and the public informed is 10 Bq/l. The reference concentration corresponding to the parametric value 0.01 mSv/year is 680 Bq/l (500 Bq/l if the foetus is taken into account).***

***2a.2. Calculation of the TID for human activity sources***

***The TID is the committed effective dose for one year of intake resulting from all the anthropogenic radionuclides whose presence in a drinking-water supply has been detected, including tritium.***

***The TID shall be calculated from the radionuclide activity concentration and***

*the dose coefficients laid down in Annex III, Table A of Directive 96/29/Euratom or more recent information recognised by the competent authorities in the Member State. The calculation shall be performed for the population group most exposed to risk, known as the critical group, on the basis of standard consumption rates established by the Commission.*

*Member States may use reference concentrations corresponding to the parametric value 0.01 mSv/year being attained. In this case, where the following formula is satisfied, Member States may assume that the parametric value has not been exceeded and that no further investigation is required:*

$$\sum_{i=1}^n \frac{C_i(\text{obs})}{C_i(\text{ref})} \leq 1$$

*where*

*C<sub>i</sub>(obs) = observed concentration of radionuclide i*

*C<sub>i</sub>(ref) = reference concentration of radionuclide i*

*n = number of radionuclides detected.*

*Where this formula is not satisfied, additional analyses must be conducted immediately in order to ensure that the result obtained is a valid one and to establish the source of the pollution.*

Or. fr

**Amendment 90**

**Michèle Rivasi**

on behalf of the Verts/ALE Group

**Proposal for a directive**

**Annex III – paragraph 2 b (new) – table**

*Text proposed by the Commission*

*Amendment*

***Reference concentrations for radioactivity of anthropogenic origin in drinking water<sup>1</sup>***

	<b><i>Nuclide</i></b>	<b><i>Reference: concentration</i></b>	<b><i>Critical age</i></b>
	<b><i>H3</i></b>	<b><i>680 Bq/l/500 Bq/l</i></b>	<b><i>2-7 years old/foetus</i></b>
	<b><i>C-14</i></b>	<b><i>21 Bq/l</i></b>	<b><i>2-7 years old</i></b>
	<b><i>Sr-90</i></b>	<b><i>0.22 Bq/l</i></b>	<b><i>&lt; 1 year old</i></b>
	<b><i>Pu-239/Pu-240</i></b>	<b><i>0.012 Bq/l</i></b>	<b><i>&lt; 1 year old</i></b>
	<b><i>Am-241</i></b>	<b><i>0.013 Bq/l</i></b>	<b><i>&lt; 1 year old</i></b>
	<b><i>Co-60</i></b>	<b><i>0.9 Bq/l</i></b>	<b><i>&lt; 1 year old</i></b>
	<b><i>Cs-134</i></b>	<b><i>0.7 Bq/l</i></b>	<b><i>Adult</i></b>
	<b><i>Cs-137</i></b>	<b><i>1.1 Bq/l</i></b>	<b><i>Adult</i></b>
	<b><i>I-131</i></b>	<b><i>0.19 Bq/l</i></b>	<b><i>1-2 years old</i></b>

<sup>1</sup> ***This table includes the most common artificial radionuclides. Reference concentrations for other radionuclides can be calculated using the dose coefficients laid down in Annex III, Table A of Directive 96/29/Euratom, or more recent information recognised by the competent authorities in the Member State concerned. The calculation must be performed for the age group most exposed to risk in order to ensure compliance with the total indicative dose of 0.01 mSv, regardless of the age of the persons consuming the water. The Commission shall define the water consumption rates for the various age brackets.***

Or. fr

#### *Justification*

*There is a need to distinguish between radioactivity from natural sources and radioactivity from the normal operation of nuclear facilities (artificial radiation and/or radiation from human activities). The distinction between natural impact and the impact of human activities is, moreover, in line with the distinctions drawn by the ICRP and contained in Directive 96/29.*