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2009

Committee on the Environment, Public Health and Food Safety

2008/0015(COD)

18.7.2008

AMENDMENTS 80 - 207

Draft report
Chris Davies
(PE407.716v01-00)

The geological storage of carbon dioxide and amending Council Directives

Proposal for a directive – amending act
(COM(2008)0018 – C6-0040/2008 – 2008/0015(COD))

Amendment 80
Anders Wijkman

Proposal for a directive – amending act
Recital 3

Text proposed by the Commission

Amendment

(3) Commission Communication of 10 January 2007 "Limiting global climate change to two degrees Celsius – The way ahead for 2020 and beyond" clarifies that in the context of the envisaged global reduction of greenhouse gas emissions of 50% by 2050, a reduction in greenhouse gas emissions of 30% in the developed world by 2020 is required, rising to 60-80% by 2050, that this reduction is technically feasible and the benefits far outweigh the costs, but that, to achieve it, all mitigation options must be harnessed. *deleted*

Or. en

Justification

As the climate situation is more serious than previously thought, and we should take the consequences of this new scientific understanding and raise our ambition when it comes to climate change mitigation, see proposed change in 3 a (new) by Wijkman. Until recently, scientific consensus set the safe zone to avoid the worst effects of climate change at 450 ppm whereas new finding now show that the critical level starts already at 350 ppm.

Amendment 81
Anders Wijkman

Proposal for a directive – amending act
Recital 3 a (new)

Text proposed by the Commission

Amendment

(3a) Recent scientific findings show that atmospheric concentration of carbon dioxide must be reduced to below 350 parts per million. The ultimate objective for the EU should be the gradual elimination of greenhouse gas emissions from fossil fuel use within the European

Union by 1 January 2050, which would imply emission reduction in the order of 60% by 2035 and 80-90% by 2050.

Or. en

Justification

As the climate situation is more serious than previously thought the recent forum held in Tällberg, Sweden, with the participation of scientists from NASA and Stockholm Environment Institute suggest that we must reduce atmospheric CO₂ to levels below 350 ppm (parts per million) in order to avoid catastrophic effects. Until recently, scientific consensus set the safe zone to avoid the worst effects of climate change at 450 ppm whereas new finding now show that the critical level starts already at 350 ppm.

Amendment 82
Urszula Krupa

Proposal for a directive – amending act
Recital 4

Text proposed by the Commission

(4) Carbon dioxide capture and geological storage (CCS) is **a** means of mitigating climate change. It consists of the capture of carbon dioxide (CO₂) from industrial installations, its transport to a storage site and its injection into a suitable geological formation for the purposes of permanent storage.

Amendment

(4) Carbon dioxide capture and geological storage (CCS) is **one of the** means of mitigating climate change. It consists of the capture of carbon dioxide (CO₂) from industrial installations, its transport to a storage site and its injection into a suitable **underground** geological formation for the purposes of permanent storage.

Or. pl

Justification

Geological storage of carbon dioxide (CCS) is not the only means of mitigating climate change.

In Article 3 of the document, it is pointed out that geological storage of carbon dioxide (CSC) is a process taking place in underground rock formations.

Amendment 83
Vittorio Prodi

Proposal for a directive – amending act
Recital 4 a (new)

Text proposed by the Commission

Amendment

(4a) Another form of carbon sequestration is through conversion of cellulosic biomass into useful gases and charcoal. Charcoal can be introduced into the soil, resulting in a substantial improvement of fertility and water retention with slow release. Observation of charcoal residues dating back several thousand years has demonstrated a substantial stability of structure, such that it could be considered as a carbon sequestration and storage technique. Charcoal would then represent a form of carbon sequestration from the atmosphere and therefore eligible for carbon credit.

Or. en

Amendment 84
Bairbre de Brún, Umberto Guidoni

Proposal for a directive – amending act
Recital 5 a (new)

Text proposed by the Commission

Amendment

(5a) CCS is just one of the measures being developed to combat climate change, in addition to the use of renewable energies and increasing energy saving and efficiency. Member States should therefore not neglect funding measures and other support regarding energy saving policies and environmentally sound renewables. In this context, CCS development should under no circumstances lead to a reduction of these efforts both in research

and financial terms.

Or. en

Justification

In announcing on last 10 January 2008 to the EP the forthcoming adoption on the 23.1.2008 of the proposals of directives concerning measures to fight climate change, including CCS, the Commission stressed the need to implement all measures aiming to energy saving and efficiency supporting a sustainable EU economic development mainly by investing in renewable energy sources and reduction of CO2 emissions: CCS is one of these instrument but not the only one.

Amendment 85
Urszula Krupa

Proposal for a directive – amending act
Recital 7

Text proposed by the Commission

(7) The European Council of 8 and 9 March 2007 also urged the Member States and the Commission to work towards strengthening research and development and developing the necessary technical, economic and regulatory framework in order to remove existing legal barriers and to bring environmentally safe CCS to deployment with new fossil power plants, if possible by 2020.

Amendment

(7) The European Council of 8 and 9 March 2007 also urged the Member States and the Commission to work towards strengthening research and development and developing the necessary technical, economic and regulatory framework in order to remove existing legal barriers and ***promote the development of infrastructure facilities so as*** to bring environmentally safe CCS to deployment with new fossil power plants, if possible by 2020.

Or. pl

Justification

In the original version, the emphasis was placed on establishing a regulatory framework so as to remove existing legal barriers. The technical and economic frameworks were addressed only peripherally, however. It is pointless to establish a technical and an economic framework without developing infrastructure facilities.

Amendment 86

Christian Ehler, Dragoş Florin David, Rumiana Jeleva, Jan Březina, Werner Langen, Herbert Reul, Jerzy Buzek, Thomas Ulmer

**Proposal for a directive – amending act
Recital 7 a (new)**

Text proposed by the Commission

Amendment

(7a) The CO₂ capture, transport and storage components have all separately been the subject of pilot projects, but they have yet to be incorporated into a complete CCS process, and the costs of the technology still have to be reduced. The largest CO₂ storage projects in which European undertakings are involved are the Sleipner project in the North Sea (Statoil) and the In Salah project in Algeria (Statoil, PB and Sonatrach). Other current pilot projects are the Vattenfall project in Schwarze Pumpe in Germany/the Land of Brandenburg and the CCS project being carried out by Total in the Lacq area in France.

Or. de

Justification

Clarification of the amendment in the draft report to point out that the projects carried out to date have not been demonstration projects but pilot projects.

Amendment 87

María Sornosa Martínez, Teresa Riera Madurell, Inés Ayala Sender

**Proposal for a directive – amending act
Recital 7a (new)**

Text proposed by the Commission

Amendment

(7a) Each of the different components of capture, transport and storage of CO₂ has been the object of demonstration projects on a smaller scale than that required for their industrial application. However, they

still need to be integrated into a complete CCS process, and technological costs need to be reduced. The main projects for CO₂ storage which include the participation of European enterprises are the Sleipner project in the North Sea (Statoil) and the In Salah project in Algeria (Statoil, BP and Sonatrach). The large-scale pilot projects under way are the Schwartzze Pumpe project in Germany (Vattenfall), the CCS project in the Lacq basin in France (Total), and the El Bierzo project in Spain (CIUDEN).

Or. es

Amendment 88
Karsten Friedrich Hoppenstedt

Proposal for a directive – amending act
Recital 13 a (new)

Text proposed by the Commission

Amendment

(13a) Beside a legislative framework for storage sites, incentives for further development of the technology, support of the installation of demonstration plants, as well as a legal framework created by the Member States for ensuring transport should be put in place as quickly as possible in order to successfully advance the use of CCS technologies.

Or. de

Justification

Clarification that further legal decisions are necessary to provide financial support for CCS technologies and demonstration plants.

Amendment 89
Christian Ehler, Dragoş Florin David, Rumiana Jeleva, Jan Březina, Werner Langen,

Herbert Reul, Jerzy Buzek, Thomas Ulmer

Proposal for a directive – amending act
Recital 13 a (new)

Text proposed by the Commission

Amendment

(13a) Besides a legislative framework for storage sites, incentives for further development of the technology, support for the installation of demonstration plants as well as a legal framework created by the Member States for ensuring transport should be put in place as quickly as possible in order to successfully advance the use of CCS technologies.

Or. en

Justification

Clarification that more legal decisions on and financial support for CCS technologies and demonstration plants are needed.

Amendment 90
Adam Gierek

Proposal for a directive – amending act
Recital 14

Text proposed by the Commission

Amendment

(14) This Directive should apply to the geological storage of CO₂ within the territory of the Member States, their exclusive economic zones and on their continental shelves. The Directive should ***not*** apply to ***research projects. It should, however, apply to*** demonstration projects with a total intended storage of 100 kilo tonnes or more. ***This threshold would also seem appropriate for the purposes of other relevant Community legislation.*** The storage of CO₂ in geological formations extending beyond the territorial scope of

(14) This Directive should apply to the geological storage of CO₂ within the territory of the Member States, their exclusive economic zones and on their continental shelves. The Directive should apply ***chiefly*** to demonstration projects ***for complexes, covering both energy installations with an output of 300 MW or more and storage complexes*** with a total intended storage of 100 kilo tonnes ***of CO₂*** or more. The storage of CO₂ in geological formations extending beyond the territorial scope of this Directive ***should not be***

this Directive *and* the storage of CO₂ in the water column *should not* be *permitted*.

permitted unless there is an appropriate international agreement on this matter. The storage of CO₂ in the water column shall be prohibited.

Or. pl

Justification

The scale of demonstration projects should be indicated with regard to not only CO₂ storage, but also energy production (output).

Amendment 91

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act

Recital 14

Text proposed by the Commission

(14) This Directive should apply to the geological storage of CO₂ within the territory of the Member States, their exclusive economic zones and on their continental shelves. The Directive should not apply to research projects. It should, however, apply to demonstration projects with a total intended storage of 100 kilo tonnes or more. This threshold would also seem appropriate for the purposes of other relevant Community legislation. *The* storage of CO₂ in *geological formations extending* beyond the territorial scope of this Directive *and the* storage of CO₂ in the water column should *not* be permitted.

Amendment

(14) This Directive should *only* apply to the geological storage of CO₂ within the territory of the Member States, their exclusive economic zones and on their continental shelves. The Directive should not apply to research projects. It should, however, apply to demonstration projects with a total intended storage of 100 kilo tonnes or more. This threshold would also seem appropriate for the purposes of other relevant Community legislation. Storage of CO₂ in *densely populated areas should be permitted neither within nor* beyond the territorial scope of this Directive. Storage of CO₂ in the water column *and storage at a depth of less than 1000 metres under the seabed* should be permitted *neither within nor beyond the territorial scope of this Directive. Further, the geological storage of CO₂, including storage at a depth of more than 1000 metres under the seabed, should not be permitted beyond the territorial scope of this Directive. Storage in sub-seabed formations should only be carried out in accordance with*

international agreements, to which Member States and/or the Community are party.

Or. en

Justification

There is no jurisdiction for the geological storage of CO₂ outside the European Union. According to geological science, the storage of CO₂ at a depth of less than 1000 meters creates serious risks of leakages. Further, as the technology has never been applied on a large scale, there are still a lot of uncertainties concerning the risks for public health. Until we are absolutely sure that there are no unacceptable risks, we should not store CO₂ under people's feet.

Amendment 92
Richard Seeber

Proposal for a directive – amending act
Recital 14

Text proposed by the Commission

(14) This Directive should apply to the geological storage of CO₂ within the territory of the Member States, their exclusive economic zones and on their continental shelves. The Directive should not apply to research projects. It should, however, apply to demonstration projects ***with a total intended storage of 100 kilo tonnes or more. This threshold would also seem appropriate for the purposes of other relevant Community legislation.*** The storage of CO₂ in geological formations extending beyond the territorial scope of this Directive and the storage of CO₂ in the water column should not be permitted.

Amendment

(14) This Directive should apply to the geological storage of CO₂ within the territory of the Member States, their exclusive economic zones and on their continental shelves. The Directive should not apply to research projects. It should, however, apply to demonstration projects. The storage of CO₂ in geological formations extending beyond the territorial scope of this Directive and the storage of CO₂ in the water column should not be permitted.

Or. en

Justification

The threshold for demonstration projects outside the Directive is much too low and would render many demonstration projects impossible.

Amendment 93
Evangelia Tzampazi

Proposal for a directive – amending act
Recital 14 a (new)

Text proposed by the Commission

Amendment

(14a) After completion of the 12 demonstration projects, the Commission should, on the basis of the experience acquired and in the light of the technological advances, evaluate the operation and the viability of the projects and submit a report thereon. On the basis of that report, the Commission should present a proposal to the European Parliament and the Council for the amendment of this Directive and the specification of the technical elements in order to include the environmental and safety evaluation results.

Or. en

Justification

The demo projects will help acquire the necessary technical experience for the safe and viable use of CCS technology. After the completion of the projects the Commission should evaluate them and then present a proposal in order to modify the current proposal for a Directive according to the new scientific elements and the technological developments.

Amendment 94
Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act
Recital 14 a (new)

Text proposed by the Commission

Amendment

(14a) Enhanced hydrocarbon recovery (the recovery of hydrocarbon additional to that produced naturally by fluid injection

or other means) should be excluded from the scope of this Directive. Enhanced hydrocarbon recovery is an economically viable activity, and has been hitherto carried out as such. Meanwhile, enhanced hydrocarbon recovery does not mitigate climate emissions, but it produces extra fossil fuels, thus extra emissions. Hence, geological storage under this Directive should exclude this process.

Or. en

Justification

Enhanced hydrocarbon recovery is already done and is an economically viable activity. Besides, enhanced hydrocarbon recovery does not lead to a net emission reduction.

Amendment 95 **Vittorio Prodi**

Proposal for a directive – amending act **Recital 14 a (new)**

Text proposed by the Commission

Amendment

(14a) Priority should be given to systemic solutions that must allow an enhancement of overall energy efficiency, for instance through coal-to-gas conversion in oxygen atmosphere, followed by emission of the gas into the gas network where it can then be made available for a distributed co- or tri-generation.

Or. en

Amendment 96
Richard Seeber

Proposal for a directive – amending act
Recital 15

Text proposed by the Commission

(15) Member States should retain the right to determine the areas ***within their territory*** from which storage sites may be selected. The selection of the appropriate storage site is crucial to ensure that the stored CO₂ will be completely contained for the indefinite future. A site should therefore only be selected as a storage site, if there is no significant risk of leakage, and if in any case no significant environmental or health impacts are likely to occur. This should be determined through a characterisation and assessment of a potential storage complex pursuant to specific requirements.

Amendment

(15) ***In determining whether a geological formation should be used as a storage site, apart from the environment and safety criteria addressed in this Directive other essential interests of Member States will also be involved, in particular economic and financial interests related to the protection of hydrocarbon reservoirs, a Member State's interest in a high degree of hydrocarbon self-sufficiency and interests of a Member State as owner of hydrocarbon reservoirs. These essential interests are not affected by this Directive.*** Member States should retain the right to determine the areas from which storage sites may be selected. ***This includes the right of Member States not to allow any storage in parts or on the whole of their territory.*** The selection of the appropriate storage site is crucial to ensure that the stored CO₂ will be completely contained for the indefinite future. A site should therefore only be selected as a storage site, if there is no significant risk of leakage, and if in any case no significant environmental or health impacts are likely to occur. This should be determined through a characterisation and assessment of a potential storage complex pursuant to specific requirements.

Or. en

Justification

The proposal refers to environment and health risks in connection with the selection of storage sites only. However, there will be also other essential interests in Member States, (in particular economic and financial interests) which are related to the selection of hydrocarbon reservoirs. It is necessary to clarify that those interests are not affected by the Directive.

This sentence has to be included for the purpose of clarifying the rights of Member States.

Amendment 97
Evangelia Tzampazi

Proposal for a directive – amending act
Recital 15

Text proposed by the Commission

(15) Member States should retain the right to determine the areas within their territory from which storage sites may be selected. The selection of the appropriate storage site is crucial to ensure that the stored CO₂ will be completely contained for the indefinite future. A site should therefore only be selected as a storage site, if there is no **significant** risk of leakage, and if in any case no significant environmental or health impacts are likely to occur. This should be determined through a characterisation and assessment of a potential storage complex pursuant to specific requirements.

Amendment

(15) Member States should retain the right to determine the areas within their territory from which storage sites may be selected. The selection of the appropriate storage site is crucial to ensure that the stored CO₂ will be completely contained for the indefinite future. A site should therefore only be selected as a storage site, if there is no risk of leakage, and if in any case no significant environmental or health impacts are likely to occur. This should be determined through a characterisation and assessment of a potential storage complex pursuant to specific requirements. ***When storing in saline aquifers it would be useful to take into consideration the possible future use for the provision of potable water. At the same time the transparency of the selection procedure should be ensured by facilitating public access to relevant information and applying the Community legislation concerning public participation.***

Or. en

Justification

In order to ensure the effectiveness of storage, any site where the geological formation or location is such that there is a possibility of leakage should not be authorised.

Given the fact that water scarcity becomes an important problem, desalinisation technologies will come more and more into use. Therefore, when selecting a saline aquifer as a storage site this possibility should be taken into account with regard to the respective salinity levels.

In order to promote public acceptance of the technology while at the same time ensuring the

transparency of the selection procedure of the storage sites it is necessary to promote public access to information and to enforce public participation.

Amendment 98

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act Recital 15

Text proposed by the Commission

(15) Member States should retain the right to determine the areas within their territory from which storage sites may be selected. The selection of the appropriate storage site is crucial to ensure that the stored CO₂ will be completely contained for the indefinite future. A site should therefore only be selected as a storage site, if there is no **significant** risk of leakage, and **if in any case no significant** environmental or health impacts **are likely to occur**. This should be determined through a characterisation and assessment of a potential storage complex pursuant to specific requirements.

Amendment

(15) Member States should retain the right to determine the areas within their territory from which storage sites may be selected. The selection of the appropriate storage site is crucial to ensure that the stored CO₂ will be completely contained for the indefinite future. A site should therefore only be selected as a storage site, if **it is proven that** there is no risk of leakage and **no risk of adverse** environmental or health impacts. This should be determined through a characterisation and assessment of a potential storage complex pursuant to specific requirements.

Or. en

Justification

It is crucial that only safe areas will be selected as storage sites. Therefore, prior to selecting a storage site, it has to be proven that there are no risks for the environment or public health.

Amendment 99

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act Recital 15 a (new)

Text proposed by the Commission

Amendment

(15a) Member States should make a realistic assessment of the storage

capacity available within their territory and send these assessments to the Commission before 2012. This information should be made public.

Or. en

Justification

So far we do not really know how much storage capacity is available in Europe. There are different estimations but those are not really precise. However, it is important to clarify how much CO₂ we can really store.

Amendment 100

Adam Gierek

Proposal for a directive – amending act

Recital 16

Text proposed by the Commission

(16) Member States should ***determine in which cases exploration is required*** to generate the information ***necessary for the site selection. Such exploration should be made subject to a permit requirement.*** Member States should ensure that the procedures for ***the granting of exploration permits*** are open to all entities possessing the ***necessary capacities and that the permits are granted*** on the basis of objective, published criteria. In order to protect and encourage exploration investments, exploration permits should be granted for ***a limited volume area*** and for a limited time, during which time the holder of the permit should have ***the sole right to explore the potential CO₂ storage complex.*** Member States ***should ensure that no conflicting uses of the complex are permitted during this time.***

Amendment

(16) Member States should ***draw up examination procedures on the basis of objective technical and environmental criteria in order*** to generate the ***necessary information permitting selection of the sites for CO₂ storage. This type of examination must meet the requirements for permits.*** Member States should ensure that the procedures for ***invitations to tender for exploration of CO₂ storage sites*** are open to all entities ***meeting the essential requirements and*** possessing the necessary capacities, on the basis of objective, published criteria. In order to protect and encourage exploration investments ***and investment in CO₂ storage site locations,*** exploration permits should be granted for a limited ***storage volumes*** and for a limited time, during which time the holder of the permit should have ***a right of exclusivity guaranteed by*** Member States.

Or. pl

Justification

Invitation-to-tender procedures must permit fair competition, making it possible for technically best prepared companies to secure permits.

Amendment 101

Christian Ehler, Dragoş Florin David, Rumiana Jeleva, Jan Březina, Werner Langen, Herbert Reul, Jerzy Buzek, Thomas Ulmer

Proposal for a directive – amending act Recital 16

Text proposed by the Commission

(16) Member States should determine in which cases exploration is required to generate the information necessary for the site selection. Such exploration should be made subject to a permit requirement. Member States should ensure that the procedures for the granting of exploration permits are open to all entities possessing the necessary capacities and that the permits are granted on the basis of objective, published criteria. In order to protect and encourage exploration investments, exploration permits should be granted for a limited volume area and for ***a limited time***, during which time the holder of the permit should have the sole right to explore the potential CO₂ storage complex. Member States should ensure that no conflicting uses of the complex are permitted during this time.

Amendment

(16) Member States should determine in which cases exploration is required to generate the information necessary for the site selection. Such exploration should be made subject to a permit requirement. Member States should ensure that the procedures for the granting of exploration permits are open to all entities possessing the necessary capacities and that the permits are granted on the basis of objective, published criteria. In order to protect and encourage exploration investments, exploration permits should be granted for a limited volume area and for ***the period which is necessary to carry out the activities***, during which time the holder of the permit should have the sole right to explore the potential CO₂ storage complex. Member States should ensure that no conflicting uses of the complex are permitted during this time. ***In the event that no activities are carried out, the Member States have to ensure that the exploration permit is withdrawn and can be granted to other entities.***

Or. en

Justification

Debureaucratization and assurance of investments.

Amendment 102
Karsten Friedrich Hoppenstedt

Proposal for a directive – amending act
Recital 16

Text proposed by the Commission

(16) Member States should determine in which cases exploration is required to generate the information necessary for the site selection. Such exploration should be made subject to a permit requirement. Member States should ensure that the procedures for the granting of exploration permits are open to all entities possessing the necessary capacities and that the permits are granted on the basis of objective, published criteria. In order to protect and encourage exploration investments, exploration permits should be granted for a limited volume area and for a **limited time**, during which time the holder of the permit should have the sole right to explore the potential CO₂ storage complex. Member States should ensure that no conflicting uses of the complex are permitted during this time.

Amendment

(16) Member States should determine in which cases exploration is required to generate the information necessary for the site selection. Such exploration should be made subject to a permit requirement. Member States should ensure that the procedures for the granting of exploration permits are open to all entities possessing the necessary capacities and that the permits are granted on the basis of objective, published **and non-discriminatory** criteria. In order to protect and encourage exploration investments, exploration permits should be granted for a limited volume area and for a **period which is necessary to carry out the activities**, during which time the holder of the permit should have the sole right to explore the potential CO₂ storage complex. Member States should ensure that no conflicting uses of the complex are permitted during this time. **If no activities are carried out, the Member States should ensure that the exploration permit is withdrawn and can be granted to other entities.**

Or. de

Justification

Objective and published criteria are not sufficient to ensure non-discrimination, which is nevertheless an important criterion needing to be guaranteed in the internal market. In addition, there is a need to secure investments and reduce bureaucracy.

Amendment 103
Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act
Recital 16

Text proposed by the Commission

(16) Member States should determine in which cases exploration is required to generate the information necessary for the site selection. Such exploration should be made subject to a permit requirement. Member States should ensure that the procedures for the granting of exploration permits are open to all entities possessing the necessary capacities and that the permits are granted on the basis of objective, published criteria. In order to protect and encourage exploration investments, exploration permits should be granted for a limited volume area and for a limited time, during which time the holder of the permit should have the sole right to explore the potential CO₂ storage complex. Member States should ensure that no conflicting uses of the complex are permitted during this time.

Amendment

(16) Member States should determine in which cases exploration is required to generate the information necessary for the site selection. Such exploration should be made subject to a permit requirement. Member States should ensure that the procedures for the granting of exploration permits are open to all entities possessing the necessary capacities and that the permits are granted on the basis of objective, ***non-discriminatory and*** published criteria. In order to protect and encourage exploration investments, exploration permits should be granted for a limited volume area and for a limited time, during which time the holder of the permit should have the sole right to explore the potential CO₂ storage complex. Member States should ensure that no conflicting uses of the complex are permitted during this time.

Or. en

Justification

Permits should be granted on the basis of non-discriminatory criteria.

Amendment 104
Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act
Recital 17

Text proposed by the Commission

(17) Storage sites should not be operated without a storage permit. The storage

Amendment

(17) Storage sites should not be operated without a storage permit. ***Storage site***

permit should be the core instrument to ensure that the substantial requirements of the Directive are met and that geological storage hence takes place in an environmentally safe way.

operators should be fully unbundled from power generators. According to the polluter pays principle, power generators must pay the costs for the storage of their CO₂ emissions. The storage permit should be the core instrument to ensure that the substantial requirements of the Directive are met and that geological storage hence takes place in an environmentally safe way.

Or. en

Justification

Power generators should have equal access to the storage capacity. They have to cover the full costs of capturing, transporting and storing their CO₂ emissions.

Amendment 105

Christian Ehler, Dragoş Florin David, Rumiana Jeleva, Jan Březina, Werner Langen, Herbert Reul, Jerzy Buzek, Thomas Ulmer

Proposal for a directive – amending act Recital 17

Text proposed by the Commission

(17) Storage sites should not be operated without a storage permit. The storage permit should be the core instrument to ensure that the substantial requirements of the Directive are met and that geological storage hence takes place in an environmentally safe way.

Amendment

(17) Storage sites should not be operated without a storage permit. The storage permit should be the core instrument to ensure that the substantial requirements of the Directive are met and that geological storage hence takes place in an environmentally safe way. *The explorations carried out and the necessary investments made therefore justify anticipation by the holder of the exploration permit that they will be the holder of the storage permit.*

Or. en

Justification

Create incentives for the carrying out of exploration.

Amendment 106
Karsten Friedrich Hoppenstedt

Proposal for a directive – amending act
Recital 17

Text proposed by the Commission

(17) Storage sites should not be operated without a storage permit. The storage permit should be the core instrument to ensure that the substantial requirements of the Directive are met and that geological storage hence takes place in an environmentally safe way.

Amendment

(17) Storage sites should not be operated without a storage permit. The storage permit should be the core instrument to ensure that the substantial requirements of the Directive are met and that geological storage hence takes place in an environmentally safe way. ***The explorer, who will as a rule have made substantial investments, should be favoured over competitors in the granting of the storage permit.***

Or. de

Justification

Creates incentives to carry out exploration.

Amendment 107
Evangelia Tzampazi

Proposal for a directive – amending act
Recital 17

Text proposed by the Commission

(17) Storage sites ***should*** not be operated without a storage permit. The storage permit should be the core instrument to ensure that the substantial requirements of the Directive are met and that geological storage hence takes place in an environmentally safe way.

Amendment

(17) Storage sites ***cannot*** be operated without a storage permit. The storage permit should be the core instrument to ensure that the substantial requirements of the Directive are met and that geological storage hence takes place in an environmentally safe way.

Or. en

Justification

This adds more clarity and removes any possibility of a storage site operating without a storage permit.

Amendment 108
Karsten Friedrich Hoppenstedt

Proposal for a directive – amending act
Recital 18

Text proposed by the Commission

(18) All draft storage permits should be submitted to the Commission in order for it to be able to issue an opinion on the draft permits within six months of their submission. The national authorities should take this opinion into consideration when taking a decision on the permit and should justify any departure from the Commission's opinion. The review at Community level should help to ensure consistency in implementation of the requirements of the Directive across the Community and also enhance public confidence in CCS, especially in the early phase of the implementation of the Directive.

Amendment

(18) The Member States should have the opportunity to submit draft storage permits to the Commission for verification.

Or. de

Justification

De-bureaucratisation and subsidiarity.

Amendment 109

Christian Ehler, Dragoş Florin David, Rumiana Jeleva, Jan Březina, Werner Langen, Herbert Reul, Jerzy Buzek, Thomas Ulmer

Proposal for a directive – amending act Recital 18

Text proposed by the Commission

(18) All draft storage permits should be submitted to the Commission in order for it to be able to issue an opinion on the draft permits within six months of their submission. The national authorities should take this opinion into consideration when taking a decision on the permit and should justify any departure from the Commission's opinion. The review at Community level should help to ensure consistency in implementation of the requirements of the Directive across the Community and also enhance public confidence in CCS, especially in the early phase of the implementation of the Directive.

Amendment

(18) Member States should have the opportunity to submit the draft storage permit to the Commission for verification.

Or. en

Justification

Debureaucratization and subsidiarity.

Amendment 110

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act Recital 18

Text proposed by the Commission

(18) All draft storage permits should be submitted to the Commission in order for it to be able to issue an opinion on the draft permits within six months of their submission. The national authorities should take this opinion into

Amendment

(18) Storage permits should be awarded by the competent authority in each Member State following consultation with the Commission. The draft storage permits should be submitted to the Commission, which should have six months to issue a

consideration when taking a decision on the permit and should justify any departure from the Commission's opinion.

The review at Community level should help to ensure consistency in implementation of the requirements of the Directive across the Community *and also enhance public confidence in CCS, especially in the early phase of the implementation of the Directive.*

binding opinion. The competent authority should refrain from taking a decision on the final permit before the Commission issues its opinion. A storage permit should only be given if the binding opinion of the Commission is favourable. The review at Community level should help to ensure consistency in implementation of the requirements of the Directive across the Community.

Or. en

Justification

The binding review at Community level is necessary to ensure consistency in the implementation of the relevant requirements.

Amendment 111 **Evangelia Tzampazi**

Proposal for a directive – amending act **Recital 18**

Text proposed by the Commission

(18) All draft storage permits should be submitted to the Commission in order for it to be able to issue an opinion on the draft permits within six months of their submission. The national authorities should take this opinion into consideration when taking a decision on the permit and should justify any departure from the Commission's opinion. The review at Community level should help to ensure consistency in implementation of the requirements of the Directive across the Community and also enhance public confidence in CCS, especially in the early phase of the implementation of the Directive.

Amendment

(18) All draft storage permits should be submitted to the Commission in order for it to be able to issue an opinion on the draft permits within six months of their submission. The national authorities should take this opinion into consideration when taking a decision on the permit and should justify any departure from the Commission's opinion. The review at Community level should help to ensure consistency in implementation of the requirements of the Directive across the Community, *to take into account possible transboundary issues* and also enhance public confidence in CCS, especially in the early phase of the implementation of the Directive.

Or. en

Justification

The review of the storage permits at Community level should also take into account possible transboundary issues linked to the storage of CO₂ in geological formations.

Amendment 112

Kathalijne Maria Buitenweg, Jill Evans

**Proposal for a directive – amending act
Recital 18 a (new)**

Text proposed by the Commission

Amendment

(18a) In order to enhance accountability and transparency of the permit procedures, Member States should ensure, with regard to both exploration and storage permit granting procedures, that the public has adequate and effective access to information, participation rights and access to justice, in accordance with the relevant provisions of Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment, as amended by Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003. The latter Directive provides for public participation in respect of the drawing up of certain plans and programmes relating to the environment. It also amends, with regard to public participation and access to justice, Council Directives 85/337/EEC and 96/61/EC, as well as Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information.

Or. en

Justification

The public should have adequate and effective access to information, participation rights and access to justice with regard to both exploration and storage permit granting procedures.

Amendment 113

Bairbre de Brún, Umberto Guidoni

Proposal for a directive – amending act Recital 18 a (new)

Text proposed by the Commission

Amendment

(18a) Member States should foresee a contribution from public funds to support CCS private projects only where adequate lowering of energy consumption in managing the new plant is clearly envisaged thanks to the new technologies in comparison to current CCS technology.

Or. en

Justification

To be consistent to the EU overall goal to contribute in reducing GHG emissions and energy saving when new technologies will be able to support CCS plants where objectives are to be reached by significant reduction of energy consumption, Member States could intervene by contributing in providing public funds.

Amendment 114

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act Recital 19

Text proposed by the Commission

Amendment

(19) The competent authority should review and where necessary update or withdraw the storage permit inter alia if it has been notified of ***significant irregularities or leakages***, if the reports submitted by the operators or the inspections carried out show non-compliance with permit conditions or if it is made aware of any other failure by the operator to meet the permit conditions. After the withdrawal of a permit, the

(19) The competent authority should review and where necessary update or withdraw the storage permit inter alia if it has been notified of ***any leakage or significant irregularities***, if the reports submitted by the operators or the inspections carried out show non-compliance with permit conditions or if it is made aware of any other failure by the operator to meet the permit conditions. After the withdrawal of a permit, the

competent authority should either issue a new permit or close the storage site. In the meantime, the competent authority should take over the responsibility for the storage site including all ensuing legal obligations. ***To the extent possible***, costs incurred should be recovered from the former operator.

competent authority should either issue a new permit or close the storage site. In the meantime, the competent authority should take over the responsibility for the storage site including all ensuing legal obligations. Costs incurred should be recovered from the former operator.

Or. en

Justification

The competent authority shall recover any costs incurred from the former operator. Naturally, the terms of such recovery will be defined by each national legal system.

Amendment 115

Bairbre de Brún, Umberto Guidoni

Proposal for a directive – amending act Recital 19

Text proposed by the Commission

(19) The competent authority should review and where necessary update or withdraw the storage permit inter alia if it has been notified of significant irregularities or leakages, if the reports submitted by the operators or the inspections carried out show non-compliance with permit conditions or if it is made aware of any other failure by the operator to meet the permit conditions. After the withdrawal of a permit, the competent authority should either issue a new permit or close the storage site. In the meantime, the competent authority should take over the responsibility for the storage site ***including all ensuing legal obligations. To the extent possible***, costs incurred ***should be*** recovered from the former operator.

Amendment

(19) The competent authority should review and where necessary update or withdraw the storage permit inter alia if it has been notified of significant irregularities or leakages, if the reports submitted by the operators or the inspections carried out show non-compliance with permit conditions or if it is made aware of any other failure by the operator to meet the permit conditions. After the withdrawal of a permit, the competent authority should either issue a new permit or close the storage site. In the meantime, the competent authority should take over the responsibility for the storage site ***and ensure that the*** costs incurred ***by it are*** recovered from the former operator, ***according to the 'polluter-pays' principle.***

Or. en

Justification

This system would strengthen the Commission's required 'polluter-pays' principle.

Amendment 116

Kathalijne Maria Buitenweg, Jill Evans

**Proposal for a directive – amending act
Recital 21**

Text proposed by the Commission

(21) Monitoring is essential to assess whether injected CO₂ is behaving as expected, whether any migration or leakage occurs, and whether any identified leakage is damaging the environment or human health. To that end, Member States should ensure that during the operational phase, the operator monitors the storage complex and the injection facilities on the basis of a monitoring plan designed pursuant to specific monitoring requirements. The plan should be submitted to and approved by the competent authority.

Amendment

(21) Monitoring is essential to assess whether injected CO₂ is behaving as expected, whether any migration or leakage occurs, and whether any identified leakage is damaging the environment or human health. To that end, Member States should ensure, ***through verification and validation***, that during the operational phase, the operator monitors the storage complex and the injection facilities on the basis of a monitoring plan designed pursuant to specific monitoring requirements. The plan should be submitted to and approved by the competent authority. ***In the case of geological storage under the seabed, monitoring should further be adapted to the uncertainty and operational difficulties associated with managing CCS technology in the marine environment.***

Or. en

Justification

Member States should control the quality of monitoring performed by the operator. Further, all necessary measures to avoid that CO₂ storage causes harm to the marine environment, should be taken.

Amendment 117
Evangelia Tzampazi

Proposal for a directive – amending act
Recital 21

Text proposed by the Commission

(21) Monitoring is essential to assess whether injected CO₂ is behaving as expected, whether any migration or leakage occurs, and whether any identified leakage is damaging the environment or **human health**. To that end, Member States should ensure that during the operational phase, the operator monitors the storage complex and the injection facilities on the basis of a monitoring plan designed pursuant to specific monitoring requirements. The plan should be submitted to and approved by the competent authority.

Amendment

(21) Monitoring is essential to assess whether injected CO₂ is behaving as expected, whether any migration or leakage occurs, and whether any identified leakage is damaging the environment or **any form of life**. To that end, Member States should ensure that during the operational phase, the operator monitors the storage complex and the injection facilities on the basis of a monitoring plan designed pursuant to specific monitoring requirements. The plan should be submitted to and approved by the competent authority.

Or. en

Justification

In order to avoid any health implications a possible leakage might have not only on humans but also on a variety of ecosystem agents, monitoring should incorporate impacts on all life-forms. For example it is important to also monitor the impacts on local marine ecosystems as any negative impacts could have direct implications for the health of these ecosystems and indirect impacts on humans. Therefore it is essential to review all life-forms.

Amendment 118
Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act
Recital 23

Text proposed by the Commission

(23) Provisions are required covering liability for damage to the local environment and climate damage, resulting from any failure of permanent containment. Liability for environmental

Amendment

(23) Provisions are required covering liability for damage to the local environment and climate damage, resulting from any failure of permanent containment. Liability for environmental

damage (damage to protected species and natural habitats, water and land) is regulated by Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, which should be applied to the operation of storage sites pursuant to the present Directive. Liability for climate damage as a result of leakages is covered by the inclusion of storage sites in Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, which requires surrender of emissions trading allowances for any leaked emissions. In addition, this Directive should establish the obligation on the operator to take corrective measures in case of significant irregularities or leakages on the basis of a corrective measures plan submitted to and approved by the competent national authority. Where the operator fails to take the necessary corrective measures, these measures should be taken by the competent authority, which should recover the costs from the operator.

damage (damage to protected species and natural habitats, water and land) is regulated by Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, which should be applied to ***the transport of CO₂ for geological storage purposes and*** the operation of storage sites pursuant to the present Directive. Liability for climate damage as a result of leakages is covered by the inclusion of storage sites in Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, which requires surrender of emissions trading allowances for any leaked emissions. In addition, this Directive should establish the obligation on the operator to take corrective measures in case of significant irregularities or leakages on the basis of a corrective measures plan submitted to and approved by the competent national authority. Where the operator fails to take the necessary corrective measures, these measures should be taken by the competent authority, which should recover the costs from the operator. ***The costs of remedying damage to the environment during transport and storage at the operating, closure and post-closure phase, to the extent not covered by the abovementioned instruments, or in case financial security is not available or adequate, should be covered by a fund which is jointly financed through the contributions of storage site operators and power generators, and which is managed by the competent authority. This fund should, in case financial security is not available or adequate, also cover traditional civil damage to property, health etc.***

Or. en

Justification

The transport of CO₂ should also be covered under Directive 2004/35/EC. Power generators and site operators should jointly pay the costs of remedying damage caused by CO₂ storage.

Amendment 119

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act Recital 25

Text proposed by the Commission

(25) After a storage site has been closed, the operator should remain responsible for maintenance, monitoring and control, reporting, and corrective measures pursuant to the requirements of this Directive on the basis of a post-closure plan submitted to and approved by the competent authority as well as for all ensuing obligations under other relevant Community legislation until the responsibility for the storage site is transferred to the competent authority.

Amendment

(25) After a storage site has been closed, the operator should remain responsible for maintenance, monitoring and control, reporting, and corrective measures pursuant to the requirements of this Directive on the basis of a post-closure plan submitted to and approved by the competent authority as well as for all ensuing obligations under other relevant Community legislation until the responsibility for the storage site is transferred to the competent authority. ***The operator should remain responsible for at least 100 years after the closure of a site.***

Or. en

Justification

According to geologists, problems could still occur more than 100 years after closure of a storage site.

Amendment 120

Karsten Friedrich Hoppenstedt

Proposal for a directive – amending act Recital 26

Text proposed by the Commission

(26) The responsibility for the storage site,

Amendment

(26) The responsibility for the storage site,

including all ensuing legal obligations, should be transferred to the competent authority, if and when all available evidence indicates that the stored CO₂ will be completely contained for the indefinite future. To this end, the operator should prepare a report documenting that the criterion has been fulfilled and submit it to the competent authority for approval of the transfer. *All draft approval decisions should be submitted to the Commission in order for it to be able to issue an opinion on the draft approval decisions within six months of their submission. The national authorities should take this opinion into consideration when taking a decision on the approval and should justify any departure from the Commission's opinion. As the review of draft storage permits at Community level, the review of draft approval decisions should help to ensure consistency in implementation of the requirements of the Directive across the Community and also enhance public confidence in CCS, especially in the early phase of the implementation of the Directive.*

including all ensuing legal obligations, should be transferred to the competent authority, if and when all available evidence indicates that the stored CO₂ will be completely contained for the indefinite future. To this end, the operator should prepare a report documenting that the criterion has been fulfilled and submit it to the competent authority for approval of the transfer.

Or. de

Justification

De-bureaucratisation and subsidiarity.

Amendment 121

Christian Ehler, Dragoş Florin David, Rumiana Jeleva, Jan Březina, Werner Langen, Herbert Reul, Jerzy Buzek, Thomas Ulmer

Proposal for a directive – amending act Recital 26

Text proposed by the Commission

(26) The responsibility for the storage site, including all ensuing legal obligations,

Amendment

(26) The responsibility for the storage site, including all ensuing legal obligations,

should be transferred to the competent authority, if and when all available evidence indicates that the stored CO₂ will be completely contained for the indefinite future. To this end, the operator should prepare a report documenting that the criterion has been fulfilled and submit it to the competent authority for approval of the transfer. ***All draft approval decisions should be submitted to the Commission in order for it to be able to issue an opinion on the draft approval decisions within six months of their submission. The national authorities should take this opinion into consideration when taking a decision on the approval and should justify any departure from the Commission's opinion. As the review of draft storage permits at Community level, the review of draft approval decisions should help to ensure consistency in implementation of the requirements of the Directive across the Community and also enhance public confidence in CCS, especially in the early phase of the implementation of the Directive.***

should be transferred to the competent authority, if and when all available evidence indicates that the stored CO₂ will be completely contained for the indefinite future. To this end, the operator should prepare a report documenting that the criterion has been fulfilled and submit it to the competent authority for approval of the transfer.

Or. en

Justification

Debureaucratization and subsidiarity.

Amendment 122

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act Recital 26

Text proposed by the Commission

(26) The responsibility for the storage site, ***including all ensuing legal obligations***, should be transferred to the competent authority, if and when all available

Amendment

(26) The responsibility for the storage site should be transferred to the competent authority, if and when all available evidence indicates that the stored CO₂ will

evidence indicates that the stored CO₂ will be completely contained for the indefinite future. To this end, the operator should prepare a report documenting that the criterion has been fulfilled and submit it to the competent authority for approval of the transfer. All draft approval decisions should be submitted to the Commission in order for it to be able to issue *an* opinion on the draft approval decisions within six months of their submission. The national authorities should ***take this opinion into consideration when taking a decision on the approval and should justify any departure from the Commission's opinion.*** As the review of draft storage permits at Community level, the review of draft approval decisions should help to ensure consistency in implementation of the requirements of the Directive across the Community ***and also enhance public confidence in CCS, especially in the early phase of the implementation of the Directive.***

be completely contained for the indefinite future. To this end, the operator should prepare a report documenting that the criterion has been fulfilled and submit it to the competent authority for approval of the transfer. All draft approval decisions should be submitted to the Commission in order for it to be able to issue ***a binding*** opinion on the draft approval decisions within six months of their submission. ***Approval of the transfer by the competent national authorities should only be given if the binding opinion of the Commission is favourable.*** As the review of draft storage permits at Community level, the review of draft approval decisions should help to ensure consistency in implementation of the requirements of the Directive across the Community. ***In similar legal terms as under the permit granting process, Member States should ensure transparency and accountability in the approval of the transfer by providing adequate and effective access to information, public participation rights and access to justice for the public.***

Or. en

Justification

The binding review at Community level is necessary to ensure consistency in the implementation of the relevant requirements.

Amendment 123 **Evangelia Tzampazi**

Proposal for a directive – amending act **Recital 27**

Text proposed by the Commission

(27) After the transfer of responsibility, ***monitoring*** should be allowed to cease, ***but should be re-activated, if leakages or***

Amendment

(27) After the transfer of responsibility, ***regular inspections*** should be allowed to cease ***and monitoring could be reduced to***

significant irregularities are identified. There should be no recovery of costs incurred by the competent authority from the former operator after the transfer of responsibility.

a level which allows for identification of leakages or significant irregularities. If any leakages or significant irregularities are identified, the necessary corrective measures should be taken by the competent authority. In the event that the closure of the storage site and/or transfer of responsibility was based on inaccurate or false information, the operator should remain liable for the costs of corrective measures and any damage caused to human health or the environment. In all other cases, the relevant costs should be covered by a fund, financed by operators' contributions and managed by the competent authority.

Or. en

Justification

Monitoring after the transfer of responsibility provides additional security to ensure that storage sites continue to behave as predicted, leakages are detected and the necessary remediation measure, if needed, can be implemented.

Amendment 124

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act Recital 27

Text proposed by the Commission

(27) After the transfer of responsibility, monitoring should *be allowed to cease, but should be re-activated, if leakages or significant irregularities are identified. There should be no recovery of costs incurred by the competent authority from the former operator after the transfer of responsibility.*

Amendment

(27) After the transfer of responsibility, monitoring should *continue for at least the next 100 years. If any leakages or significant irregularities are identified, the necessary corrective measures should be taken by the competent authority. In the event that the closure of the storage site was based on inaccurate or false information, the operator should remain liable for the costs of corrective measures and any damage caused to human health or the environment. In all other cases, the*

relevant costs should be covered by the fund jointly financed by the operators' and power generators' contributions and managed by the competent authority.

Or. en

Justification

According to geologists, problems could still occur more than 100 years after closure of a storage site. Power generators and site operators should jointly pay the costs of remedying damage caused by CO₂ storage.

Amendment 125

Bairbre de Brún, Umberto Guidoni

Proposal for a directive – amending act

Recital 27

Text proposed by the Commission

(27) After the transfer of responsibility, monitoring ***should*** be ***allowed to cease***, but should be re-activated, if leakages or significant irregularities are identified. There should be no recovery of costs incurred by the competent authority from the former operator after the transfer of responsibility.

Amendment

(27) After the transfer of responsibility, monitoring ***may*** be ***reduced***, but should be ***fully*** re-activated, if leakages or significant irregularities are identified. There should be no recovery of costs incurred by the competent authority from the former operator after the transfer of responsibility, ***unless there is damage due to fault or negligence of the operator, even if this damage only occurs after the transfer referred to in Article 18.***

Or. en

Justification

It is important that a certain level of monitoring is maintained on the storage site after its closure and until the injected CO₂ is fully stabilised.

Amendment 126
Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act
Recital 28

Text proposed by the Commission

(28) Financial provision should be made *provided* in order to **raise confidence** that closure and post-closure obligations, obligations arising from inclusion under **Directive 2003/87/EC**, and obligations under **this Directive** to take corrective measures in case of significant irregularities **or leakages**, can be met. Member States should ensure that financial provisions, by way of financial security or any other equivalent, are made by the applicant prior to the submission of the permit application.

Amendment

(28) Financial provision should be made in order to **ensure** that closure and post-closure obligations, obligations arising from inclusion under **Directives 2003/87/EC and 2004/35/EC**, and obligations under **these Directives** to take corrective measures in case of **leakages or** significant irregularities, can be met. Member States should ensure that financial provisions, by way of financial security or any other equivalent, are made by the applicant prior to the submission of the permit application.

Or. en

Justification

Financial provision should be provided in order to ensure that the obligations arising from the environmental liability Directive (2004/35/EC) are fulfilled.

Amendment 127
Christian Ehler, Dragoş Florin David, Rumiana Jeleva, Jan Březina, Werner Langen, Herbert Reul, Jerzy Buzek, Thomas Ulmer

Proposal for a directive – amending act
Recital 28

Text proposed by the Commission

(28) Financial provision should be made *provided* in order to raise confidence that closure and post-closure obligations, obligations arising from inclusion under Directive 2003/87/EC, and obligations under this Directive to take corrective measures in case of significant irregularities or leakages, can be met.

Amendment

(28) Financial provision should be made in order to raise confidence that closure and post-closure obligations, obligations arising from inclusion under Directive 2003/87/EC, and obligations under this Directive to take corrective measures in case of significant irregularities or leakages, can be met. Member States

Member States should ensure that financial provisions, by way of financial security or any other equivalent, are made by the applicant prior to the **submission of the permit application**.

should ensure that financial provisions, by way of financial security or any other equivalent, are made by the applicant prior to the **use of the storage**.

Or. en

Justification

Reduction of costs.

Amendment 128 **Richard Seeber**

Proposal for a directive – amending act **Recital 29**

Text proposed by the Commission

(29) Access to CO₂ transport networks and storage sites could become a condition for entry into or competitive operation within the internal electricity and heat market, depending on the relative prices of carbon and CCS. It is therefore appropriate to make arrangements for potential users to obtain such access. This should be done in a manner to be determined by each Member State, applying the objectives of fair and open access and taking into account *inter alia* the transport and storage capacity which is available **or can reasonably be made available as well as the proportion of its CO₂ reduction obligations pursuant to international legal instruments and to Community legislation intended to meet through CO₂ capture and geological storage**. Member States should also establish dispute settlement mechanisms to enable expeditious settlement of disputes regarding access to CO₂ transport networks and storage sites.

Amendment

(29) Access to CO₂ transport networks and storage sites could become a condition for entry into or competitive operation within the internal electricity and heat market, depending on the relative prices of carbon and CCS. It is therefore appropriate to make arrangements for potential users to obtain such access. This should be done in a manner to be determined by each Member State, applying the objectives of fair and open access and taking into account *inter alia* the transport and storage capacity which is available. **Since a Community wide infrastructure for CO₂ storage and transport does not exist, Member States should have the opportunity to grant exemption from regulated third party access to provide an incentive for investments in CO₂ infrastructure**. Member States should also establish dispute settlement mechanisms to enable expeditious settlement of disputes regarding access to CO₂ transport networks and storage sites.

Justification

If the access of third parties to storage sites and transportation networks is made dependent on the national obligations to reduce CO₂ emissions, this would lead to unequal treatment of the operators of storage sites and transportation networks in the various Member States. Exemptions from the regulated third party access to CO₂ storage sites and transportation networks are to be provided.

Amendment 129

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act Recital 29

Text proposed by the Commission

(29) Access to CO₂ transport networks and storage sites could become a condition for entry into or competitive operation within the internal electricity and heat market, depending on the relative prices of carbon and CCS. It is therefore appropriate to make arrangements for potential users to obtain such access. This ***should be done in a manner to*** be determined by each Member State, applying the objectives of fair and open access and taking into account *inter alia* the transport and storage capacity which is available or can reasonably be made available as well as the proportion of its CO₂ reduction obligations pursuant to international legal instruments and to Community legislation intended to *meet* through CO₂ capture and geological storage. Member States should also establish dispute settlement mechanisms to enable expeditious settlement of disputes regarding access to CO₂ transport networks and storage sites.

Amendment

(29) Access to CO₂ transport networks and storage sites could become a condition for entry into or competitive operation within the internal electricity and heat market, depending on the relative prices of carbon and CCS. It is therefore appropriate to make arrangements for potential users to obtain such access. This ***means that transport operators should be fully unbundled from both storage site operators and users (i.e. power generators). The latter should bear all the costs of transporting CO₂ from the capture to the storage site. The conditions of access to transport networks and storage sites should*** be determined by each Member State, applying the objectives of fair and open access and taking into account *inter alia* the transport and storage capacity which is available or can reasonably be made available as well as the proportion of its CO₂ reduction obligations pursuant to international legal instruments and to Community legislation intended to *be met* through CO₂ capture and geological storage. Member States should also establish dispute settlement mechanisms to enable expeditious settlement of disputes

regarding access to CO₂ transport networks and storage sites.

Or. en

Justification

Power generators should have equal access to the storage capacity. They have to cover the full costs of capturing, transporting and storing their CO₂ emissions.

Amendment 130

Chris Davies

Proposal for a directive – amending act

Recital 29

Text proposed by the Commission

(29) Access to CO₂ transport networks and storage sites ***could become*** a condition for entry into or competitive operation within the internal electricity and heat market, depending on the relative prices of carbon and CCS. It is therefore appropriate to make arrangements for potential users to obtain such access. This should be done in a manner to be determined by each Member State, applying the objectives of fair and open access and taking into account *inter alia* the transport and storage capacity which is available or can reasonably be made available ***as well as the proportion of its CO₂ reduction obligations pursuant to international legal instruments and to Community legislation intended to meet through CO₂ capture and geological storage. Member States should also establish dispute settlement mechanisms to enable expeditious settlement of disputes regarding access to CO₂ transport networks and storage sites.***

Amendment

(29) ***Transparent and non-discriminatory*** access to CO₂ transport networks and storage sites, ***irrespective of the geographical location of potential users within the European Union, should be*** a condition for entry into or competitive operation within the internal electricity and heat market, depending on the relative prices of carbon and CCS. It is therefore appropriate to make arrangements for potential users to obtain such access. This should be done in a manner to be determined by each Member State ***in consultation with the Commission,*** applying the objectives of fair and open access and taking into account *inter alia* the transport and storage capacity which is available or can reasonably be made available, ***and the demand for cross-border transit flows of CO₂.***

Or. en

Justification

It is important to ensure that operators in Member States such as Greece are not unduly disadvantaged by their geographic location or potential limitations on development of storage sites.

Amendment 131 Karsten Friedrich Hoppenstedt

Proposal for a directive – amending act Recital 29

Text proposed by the Commission

(29) Access to CO₂ transport networks and storage sites could become a condition for entry into or competitive operation within the internal electricity and heat market, depending on the relative prices of carbon and CCS. It is therefore appropriate to make arrangements for potential users to obtain such access. This should be done in a manner to be determined by each Member State, applying the objectives of fair and open access and taking into account *inter alia* the transport and storage capacity which is available or can reasonably be made available as well as the proportion of its CO₂ reduction obligations pursuant to international legal instruments and to Community legislation intended to meet through CO₂ capture and geological storage. Member States should also establish dispute settlement mechanisms to enable expeditious settlement of disputes regarding access to CO₂ transport networks and storage sites.

Amendment

(29) Access to CO₂ transport networks and storage sites could become a condition for entry into or competitive operation within the internal electricity and heat market, depending on the relative prices of carbon and CCS. It is therefore appropriate to make arrangements for potential users to obtain such access ***on a non-discriminatory basis***. This should be done in a manner to be determined by each Member State, applying the objectives of fair and open access and taking into account *inter alia* the transport and storage capacity which is available or can reasonably be made available as well as the proportion of its CO₂ reduction obligations pursuant to international legal instruments and to Community legislation intended to meet through CO₂ capture and geological storage. Member States should also establish dispute settlement mechanisms to enable expeditious settlement of disputes regarding access to CO₂ transport networks and storage sites.

Or. de

Justification

Objective and published criteria are not sufficient to ensure non-discrimination, which is nevertheless an important criterion needing to be guaranteed in the internal market.

Amendment 132

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act Recital 30

Text proposed by the Commission

(30) Provisions are required to ensure that in cases of transboundary CO₂ transport, transboundary storage sites or transboundary storage complexes, the competent authorities of the Member States concerned shall meet the requirements of this Directive and of all other Community legislation jointly.

Amendment

(30) Provisions are required to ensure that in cases of transboundary CO₂ transport, transboundary storage sites or transboundary storage complexes, the competent authorities of the Member States concerned shall meet the requirements of this Directive and of all other Community legislation jointly, ***as well as all the international agreements to which Member States and/or the Community are party. The provisions of Article 7 of Directive 85/337/EEC should also apply in this case.***

Or. en

Justification

In case of transboundary CO₂ transport and/or storage, all requirements of the Directive on the assessment of environment effects, and all requirements of international agreements to which Member States or the Commission are party, should apply.

Amendment 133

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act Recital 31

Text proposed by the Commission

(31) The competent authority should establish and maintain a register of all closed storage sites and surrounding storage complexes, including maps of their spatial extent to be taken into consideration by the competent national authorities in

Amendment

(31) The competent authority should establish and maintain a register of all ***operating and*** closed storage sites and surrounding storage complexes, including maps of their spatial extent to be taken into consideration by the competent national

relevant planning and permitting procedures. The register should also be reported to the Commission.

authorities in relevant planning and permitting procedures. The register should also be reported to the Commission.

Or. en

Justification

Operating storage sites should also be registered.

Amendment 134

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act

Recital 33

Text proposed by the Commission

(33) Member States should lay down rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive. Those penalties should be effective, proportionate and dissuasive.

Amendment

(33) Member States should lay down rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive. Those penalties should be effective, proportionate and dissuasive.

For serious violations of the obligations arising from a permit granted according to this Directive, including the obligation to undertake corrective measures, which result in CO₂ being emitted into the soil, air or water, operators should further be criminally liable under the terms of Directive 2008/XX/EC of the European Parliament and of the Council on the protection of the environment through criminal law.

Or. en

Justification

In order to have the same level of environment and health protection in the whole Community, serious violations of the obligations arising from permits granted according to this Directive should fall under criminal law in all Member States.

Amendment 135

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act Recital 35

Text proposed by the Commission

(35) Directive 85/337/EEC should be amended to cover capture and transport of CO₂ streams for the purposes of geological storage as well as storage sites pursuant to this Directive. Directive 96/61/EC should be amended to cover capture of CO₂ streams for the purposes of geological storage from installations covered by that Directive. Directive 2004/35/EC should be amended to cover the operation of storage sites pursuant to this Directive.

Amendment

(35) Directive 85/337/EEC should be amended to cover capture and transport of CO₂ streams for the purposes of geological storage as well as storage sites pursuant to this Directive. Directive 96/61/EC should be amended to cover capture of CO₂ streams for the purposes of geological storage from installations covered by that Directive. Directive 2004/35/EC should be amended to cover the ***transport of CO₂ for geological storage purposes and*** operation of storage sites pursuant to this Directive.

Or. en

Justification

The transport of CO₂ should also fall under the Directive on environmental liability (2004/35/EC).

Amendment 136

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act Recital 37

Text proposed by the Commission

(37) ***The transition to low-carbon power generation requires that new investments in fossil fuel power generation are made in such a way as to facilitate substantial reductions in emissions. To this end,*** Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants should be

Amendment

(37) Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants should be amended to require that ***new combustion plants with a capacity of 200 megawatts or more may only be authorised if their emissions fall below the limit of 350 g***

amended to require that *all combustion plants, for which the original construction license or the original operating licence is granted after the entry into force of this Directive, have suitable space on the installation site for the equipment necessary to capture and compress CO₂ and that the availability of suitable storage sites and transport networks, as well as the technical feasibility of retrofitting for CO₂ capture, have been assessed.*

CO₂/kWh.

Or. en

Justification

In order to reach our climate ambitions, maximum emission levels have to be set for power generators.

Amendment 137

Kathalijne Maria Buitenweg, Jill Evans

**Proposal for a directive – amending act
Article 1 - paragraph 1**

Text proposed by the Commission

1. This Directive establishes a legal framework for the geological storage of carbon dioxide (hereinafter "CO₂").

Amendment

1. This Directive establishes a legal framework for the ***transport of carbon dioxide for geological storage purposes and*** geological storage of carbon dioxide (hereinafter "CO₂").

Or. en

Justification

Transport of CO₂ should also fall under the requirements set in this Directive.

Amendment 138
Bairbre de Brún, Umberto Guidoni

Proposal for a directive – amending act
Article 1 - paragraph 1

Text proposed by the Commission

1. This Directive establishes a legal framework for the geological storage of carbon dioxide (hereinafter "CO₂").

Amendment

1. This Directive establishes a legal framework for the ***environmentally safe*** geological storage of carbon dioxide (hereinafter "CO₂") ***in order to contribute to the fight against climate change.***

Or. en

Justification

The prime goal when creating a regulatory framework for CCS is to ensure that no health or environmental risks will arise.

Amendment 139
Evangelia Tzampazi

Proposal for a directive – amending act
Article 1 - paragraph 1

Text proposed by the Commission

1. This Directive establishes a legal framework for the geological storage of carbon dioxide (hereinafter "CO₂").

Amendment

1. This Directive establishes a legal framework for the ***environmentally safe*** geological storage of carbon dioxide (hereinafter "CO₂").

Or. en

Justification

The European 2007 Spring Council Conclusions urged the Member States and the Commission to bring environmentally safe CCS to deployment with new fossil fuel power plants, if possible by 2020.

Amendment 140
Vittorio Prodi

Proposal for a directive – amending act
Article 1 - paragraph 1

Text proposed by the Commission

1. This Directive establishes a legal framework for the geological storage of carbon dioxide (hereinafter "CO₂").

Amendment

1. This Directive establishes a legal framework for the geological storage of carbon dioxide (hereinafter "CO₂") **and for storing charcoal from cellulosic biomass in the soil.**

Or. en

Justification

If it is a Directive on geological storage of CO₂, all kind of storage methods should be taken in consideration, especially those that do not imply any risk for human health and environment.

Amendment 141
Holger Kraemer

Proposal for a directive – amending act
Article 1 - paragraph 1

Text proposed by the Commission

1. This Directive establishes a legal framework for the geological storage of carbon dioxide (hereinafter "CO₂").

Amendment

1. This Directive establishes a legal framework for the geological storage of carbon dioxide (hereinafter "CO₂") **to contribute to the fight against climate change.**

Or. de

Amendment 142
Karsten Friedrich Hoppenstedt

Proposal for a directive – amending act
Article 1 - paragraph 1

Text proposed by the Commission

1. This Directive establishes a legal framework for the geological storage of carbon dioxide (hereinafter "CO₂").

Amendment

1. This Directive establishes a legal framework for the geological storage of carbon dioxide (hereinafter "CO₂") **to contribute to the fight against climate change.**

Or. de

Justification

This addition clarifies the real aim of CO₂ sequestration, which is to help combat climate change. With a view to the interpretation of the other provisions of the directive it is important to specify this objective.

Amendment 143
Lambert van Nistelrooij

Proposal for a directive – amending act
Article 1 - paragraph 2

Text proposed by the Commission

2. The purpose of geological storage is **permanent containment of CO₂** in such a way as to prevent **or reduce as far as possible negative effects on the environment and any resulting risk to human health.**

Amendment

2. The purpose of geological storage is **to provide an alternative to the release of CO₂ into the atmosphere by containing it permanently and safely underground** in such a way as to prevent **a negative impact on human health or the environment. Geological storage of CO₂ is seen only as an inter partes procedure in order to put a halt to climate change as fast as possible.**

Or. en

Justification

The directive can only be regarded as acceptable if it makes provision for the containment of

CO₂ in a manner that is permanent, safe, and should have no negative impacts upon human health or the environment. Geological storage of CO₂ is not a sustainable, permanent solution to climate change but a so called 'end of pipe solution'. Therefore, it should only be seen as an inter partes procedure while converting to low-carbon economy.

Amendment 144

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act Article 1 - paragraph 2

Text proposed by the Commission

2. The purpose of geological storage is ***permanent containment of CO₂*** in such a way as to prevent ***or reduce as far as possible negative effects on the environment and any resulting risk to human health.***

Amendment

2. The purpose of geological storage is ***to permanently and safely contain CO₂ underground*** in such a way as to prevent ***any risk of negative environmental or human health impacts.***

Or. en

Justification

CO₂ has to be stored safely and permanently.

Amendment 145

Adam Gierek

Proposal for a directive – amending act Article 1 - paragraph 2

Text proposed by the Commission

2. The purpose of geological storage is permanent containment of CO₂ in such a way as to prevent ***or reduce as far as possible*** negative effects on the environment and ***any resulting risk to human health.***

Amendment

2. The purpose of geological storage is permanent containment of CO₂ in such a way as to prevent negative effects on the ***external*** environment and ***on inhabitants in a safety zone with a 500 m radius of the injection point.***

Or. pl

Justification

It is essential to incorporate the notion of 'safety zone'.

Amendment 146
Evangelia Tzampazi

Proposal for a directive – amending act
Article 1 - paragraph 2

Text proposed by the Commission

2. The purpose of geological storage is permanent containment of CO₂ in such a way as to prevent or **reduce as far as possible** negative effects on the environment and any resulting risk to human health.

Amendment

2. The purpose of geological storage is permanent containment of CO₂ in such a way as to prevent or **eliminate** negative effects on the environment and any resulting risk to human health.

Or. en

Justification

Stronger wording to allow no room for misinterpretation regarding the goal of the Directive, which is the environmentally safe storage of CO₂ in a geological formation.

Amendment 147
Péter Olajos

Proposal for a directive – amending act
Article 1 - paragraph 2

Text proposed by the Commission

2. The purpose of geological storage is permanent containment of CO₂ in such a way as to prevent or reduce as far as possible negative effects on the environment and any resulting risk to human health.

Amendment

2. The purpose of geological storage is permanent containment of CO₂ **in underground geological formations** in such a way as to prevent or reduce as far as possible negative effects on the environment and any resulting risk to human health.

Amendment 148
Karsten Friedrich Hoppenstedt

Proposal for a directive – amending act
Article 1 - paragraph 2

Text proposed by the Commission

2. The purpose of geological storage is permanent containment of CO₂ in such a way as to prevent or reduce as far as possible negative effects on the environment and any resulting risk to human health.

Amendment

2. The purpose of geological storage is permanent containment of CO₂ in such a way as to prevent or, **where that is not practicable**, reduce as far as possible negative effects on the environment and any resulting risk to human health.

Justification

This addition clarifies that, besides combating climate change, the directive's primary objective is to prevent negative effects on the environment, and that reduction of such effects suffices only where prevention is not practicable. To that end it echoes the wording of other similar environmental directives (Article 1 of the IPPC Directive).

Amendment 149
Vittorio Prodi

Proposal for a directive – amending act
Article 1 - paragraph 2

Text proposed by the Commission

2. The purpose of geological storage is permanent containment of CO₂ in such a way as to prevent or reduce as far as possible negative effects on the environment and any resulting risk to human health.

Amendment

2. The purpose of geological storage is permanent containment of CO₂ in such a way as to prevent or reduce as far as possible negative effects on the environment and any resulting risk to human health. ***The purpose of storage of charcoal in soil is to enhance fertility and water retention as well as carbon sequestration.***

Justification

If this is to be a Directive on geological storage of CO₂, all kind of storage methods should be taken into consideration, especially those that do not imply any risk for human health and environment.

Amendment 150
Richard Seeber

Proposal for a directive – amending act
Article 1 - paragraph 2 a (new)

Text proposed by the Commission

Amendment

2a. Member States shall take the necessary measures to ensure that geological storage of CO₂ is carried out without endangering human health, without harming the environment and, in particular, without risk to water, air, soil, plants or animals.

Justification

This amendment introduces a provision similar to provisions in other directives, such as the waste framework directive, and strengthens the aspects of protection of human health and of environmental protection

Amendment 151
Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act
Article 2 - paragraph 1

Text proposed by the Commission

Amendment

1. This Directive shall apply to the

1. This Directive shall ***only*** apply to the

geological storage of CO₂ on the territory of the Member States, their exclusive economic zones and on their continental shelves within the meaning of the United Nations Convention on the Law of the Seas (UNCLOS).

geological storage of CO₂ on the territory of the Member States, their exclusive economic zones and on their continental shelves within the meaning of the United Nations Convention on the Law of the Seas (UNCLOS). ***Enhanced hydrocarbon recovery shall be excluded from the scope of this Directive.***

Or. en

Justification

Enhanced hydrocarbon recovery is already done and is an economically viable activity. Besides, enhanced hydrocarbon recovery does not necessarily lead to a net emission reduction.

Amendment 152
Adam Gierek

Proposal for a directive – amending act
Article 2 - paragraph 2

Text proposed by the Commission

2. This Directive shall not apply to geological storage of CO₂ undertaken for research, development or testing of new products and processes.

Amendment

2. This Directive shall not apply to geological storage of CO₂ undertaken for research, development or testing of new products and processes, ***with the exception of CO₂ storage for permanent containment or industrial-scale storage beneath deposits of oil or natural gas with a view to improving exploitation thereof or in instances where this could improve workplace safety in methane-rich coal mines.***

Or. pl

Justification

Reference is made to the possibility of making active use of CO₂ storage in connection with techniques for fossil-fuel extraction.

Amendment 153
Richard Seeber

Proposal for a directive – amending act
Article 2 - paragraph 2

Text proposed by the Commission

2. This Directive shall not apply to geological storage of CO₂ undertaken for research, development or testing of new products and processes.

Amendment

2. This Directive shall not apply to geological storage of CO₂ undertaken for research, development or testing of new products and processes, ***nor to the geological storage of CO₂ or gas mixtures containing CO₂ being injected for the purpose of and as a measure to increase the exploitation of hydrocarbons in the storage site.***

Or. en

Justification

It has not been clarified unambiguously, that injecting CO₂ for the purpose of increasing exploitation of hydrocarbons (enhanced oil or gas recovery) is exempted from the scope of application of the directive or that the directive leaves this eventually to the interpretation by the Member States. A clarification is highly desirable.

Amendment 154
Chris Davies

Proposal for a directive – amending act
Article 2 - paragraph 2

Text proposed by the Commission

2. This Directive shall not apply to geological storage of CO₂ undertaken for research, development or testing of new products and processes.

Amendment

2. This Directive shall not apply to geological storage of CO₂ undertaken for research, development or testing of new products and processes. ***It shall, however, apply to demonstration and commercial projects with a total intended storage of 100 kilotonnes or more.***

Or. en

Justification

Intended not to exclude the application of the Directive to commercial CO₂ storage projects.

Amendment 155

Karsten Friedrich Hoppenstedt

Proposal for a directive – amending act

Article 2 - paragraph 3

Text proposed by the Commission

3. The storage of CO₂ ***in geological formations extending*** beyond the area referred to in paragraph 1 shall not be permitted.

Amendment

3. The storage of CO₂ ***in a storage site with a storage complex extending*** beyond the area referred to in paragraph 1 shall not be permitted. ***This shall not apply where a level of protection comparable to that provided by this directive is guaranteed for the entire storage complex.***

Or. de

Justification

Geological formations may extend for thousands of km. Consequently a ban on storage in a geological formation extending beyond the borders of the EU would not be helpful. However, where CO₂ is stored on a site with a storage complex extending beyond the borders of the EU, it needs to be ensured that the stored CO₂ cannot escape on the other side of the border with impunity.

Amendment 156

Kathalijne Maria Buitenweg, Jill Evans,

Proposal for a directive – amending act

Article 2 - paragraph 3

Text proposed by the Commission

3. The storage of CO₂ ***in geological formations extending*** beyond the area referred to in paragraph 1 shall not be permitted.

Amendment

3. The ***geological*** storage of CO₂, ***including storage under the seabed,*** beyond the area referred to in paragraph 1 shall not be permitted. ***The storage of CO₂ under the seabed shall further be conducted in accordance with***

international agreements, to which Member States and/or the Community are party.

Or. en

Justification

According to geological science, the storage of CO₂ at a depth of less than 1000 meters entails serious risks of leakages. International agreements and requirements for future CO₂ storage should be respected.

Amendment 157

Kathalijne Maria Buitenweg, Jill Evans

**Proposal for a directive – amending act
Article 2 - paragraph 4**

Text proposed by the Commission

4. The storage of CO₂ in the water column shall not be permitted.

Amendment

4. The storage of CO₂ in the water column *within or beyond the area referred to in paragraph 1* shall not be permitted.

Or. en

Justification

The storage of CO₂ in the water column shall not be permitted.

Amendment 158

Kathalijne Maria Buitenweg, Jill Evans

**Proposal for a directive – amending act
Article 2 - paragraph 4 a (new)**

Text proposed by the Commission

Amendment

4a. The storage of CO₂ in densely populated areas shall not be permitted.

Or. en

Justification

As the technology has never been applied on a large scale, there are still a lot of uncertainties concerning the risks for public health. Until we are absolutely sure that there are no unacceptable risks, we should not store CO₂ under people's feet.

Amendment 159

Vladko Todorov Panayotov

Proposal for a directive – amending act

Article 3 - point 1

Text proposed by the Commission

(1) 'geological storage of CO₂' means injection into and storage of CO₂ streams in underground geological formations;

Amendment

(1) 'geological storage of CO₂' means injection into and storage of CO₂ streams in underground geological formations
permanently or for long periods on a geological scale;

Or. en

Justification

To increase public confidence in CCS's positive effect.

Amendment 160

Evangelia Tzampazi

Proposal for a directive – amending act

Article 3 - point 1

Text proposed by the Commission

(1) 'geological storage of CO₂' means injection into and storage of CO₂ streams in underground geological formations;

Amendment

(1) 'geological storage of CO₂' means injection into and ***environmentally safe*** storage of CO₂ streams in underground geological formations;

Or. en

Justification

See justification to Article 1, paragraph 1.

Amendment 161

Kathalijne Maria Buitenweg, Jill Evans

**Proposal for a directive – amending act
Article 3 - point 1 a (new)**

Text proposed by the Commission

Amendment

***(1a) 'enhanced hydrocarbon recovery'
means the recovery of hydrocarbon
additional to that produced naturally by
fluid injection or other means;***

Or. en

Justification

Definition of enhanced hydrocarbon recovery.

Amendment 162

Péter Olajos

**Proposal for a directive – amending act
Article 3 - point 3**

Text proposed by the Commission

Amendment

***(3) 'storage site' means a **specific**
geological formation used for the
geological storage of CO₂;***

***(3) 'storage site' means a **designated**
surface area with its service facilities and
the underlying spatial volume defined in
depth interval for the purpose of CO₂
storage;***

Or. en

Justification

In our view the terms 'storage site', 'storage complex' and 'geological formation' are not

properly used thorough the whole proposal including the definitions in Article 3. The Community legislation on nuclear waste gives an excellent basis for this Directive. The term “storage site’ implies the storage geographical designation, the designated surface area, the underlying spatial volume, its legal protection and in general its service facilities.

Amendment 163

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act Article 3 - point 3

Text proposed by the Commission

(3) 'storage site' means a specific geological formation used for the geological storage of CO₂;

Amendment

(3) 'storage site' means **a defined area** **within** a specific geological formation used for the geological storage of CO₂ **and associated surface and injection facilities**;

Or. en

Justification

Some geological formations are very large and could be shared among different countries. It should be possible to split up one geological formation in more than one storage sites, so that for each one of them a separate permit should be granted.

Amendment 164

Karsten Friedrich Hoppenstedt

Proposal for a directive – amending act Article 3 - point 3

Text proposed by the Commission

(3) 'storage site' means a **specific** geological formation used for the geological storage of CO₂;

Amendment

(3) ‘storage site’ means a **definable area** **within a** geological formation used for the geological storage of CO₂;

Or. de

Justification

In technical terms a storage site is a smaller, definable area within a larger geological

formation. [*Translator's note: The reference in the original to the German term 'besondere' does not affect the EN text.*]

Amendment 165

Christian Ehler, Dragoş Florin David, Rumiana Jeleva, Jan Březina, Werner Langen, Herbert Reul, Jerzy Buzek, Thomas Ulmer

Proposal for a directive – amending act Article 3 - point 3

Text proposed by the Commission

(3) 'storage site' means a specific geological formation used for the geological storage of CO₂;

Amendment

(3) 'storage site' means a specific **part of a** geological formation **that is adequate** for the geological storage of CO₂;

Or. en

Justification

Specification.

Amendment 166

Urszula Krupa

Proposal for a directive – amending act Article 3 - point 3

Text proposed by the Commission

(3) 'storage site' means a specific geological formation used for the geological storage of CO₂;

Amendment

(3) 'storage site' means a specific **location, within a** geological formation, used for the geological storage of CO₂;

Or. pl

Justification

'Storage site' is not synonymous with 'geological formation'. CO₂ is not stored throughout a geological formation; rather, it is stored at specific locations within the formation.

Amendment 167

Urszula Krupa

Proposal for a directive – amending act

Article 3 - point 4

Text proposed by the Commission

(4) 'geological formation' means a lithostratigraphical subdivision within which distinct **rock layers** can be found **and mapped**;

Amendment

(4) 'geological formation' means a **basic** lithostratigraphical subdivision within which distinct **rocks** can be found, **making it possible to draw up a description and various geological maps (including, for instance, geological engineering maps) in accordance with Annexes I and II**;

Or. pl

Justification

Skaly nie zawsze występują w warstwach (np. skaly przeobrażone czy wylewne) z powodu różnej struktury. Struktura skaly nie jest podstawowym kryterium litostratygraficznym, lecz uzupełniającym.

W dokumencie źródłowym w definicji formacji skalnej, gdzie proponuje się tworzenie jednej mapy nie można zaakceptować tak ograniczonego podejścia do problemu.

Załączniki I i II niniejszego dokumentu jednoznacznie mówią o wielokierunkowych badaniach geologicznych formacji skalnych (geofizycznych, geochemicznych, inżynierskich, itp.), dlatego zaproponowana poprawka pokazuje złożoność problemu formacji skalnych, gdzie będzie dokonywane składowanie CO₂.

Amendment 168

Bairbre de Brún, Umberto Guidoni

Proposal for a directive – amending act

Article 3 - point 5

Text proposed by the Commission

(5) 'leakage' means any release of CO₂ from the storage complex;

Amendment

(5) 'leakage' means any **measurable** release of CO₂ from the storage complex **to the ground surface, groundwater, atmosphere or hydrosphere confirmed, if necessary, by monitoring systems using best available technology**;

Justification

The prime goal is to ensure that the storage of CO₂ is environmentally safe and safe for human health. Groundwater should be added to this amendment because it is a requirement of the Water Framework Directive.

Amendment 169

Péter Olajos

Proposal for a directive – amending act

Article 3 - point 5

Text proposed by the Commission

(5) 'leakage' means any release of CO₂ from the storage complex;

Amendment

(5) 'leakage' means any release of CO₂ **to any compartment of the environment** from the storage complex;

Or. en

Justification

CO₂ that remains in a secondary containment formation outside the complex (this may occur because the complex has not been properly defined) should not lead to the surrender of ETS permits since the CO₂ is still permanently stored. The storage permit would, of course, need to be updated.

Amendment 170

Christian Ehler, Dragoş Florin David, Rumiana Jeleva, Jan Březina, Werner Langen, Herbert Reul, Jerzy Buzek, Thomas Ulmer

Proposal for a directive – amending act

Article 3 - point 5

Text proposed by the Commission

(5) 'leakage' means **any** release of CO₂ from the storage complex;

Amendment

(5) 'leakage' means **the not insignificant** release of CO₂ from the storage complex;

Or. en

Justification

Specification and adoption to the description of the Commission with reference to the IPCC special report on CCS.

Amendment 171

Norbert Glante

Proposal for a directive – amending act

Article 3 - point 5

Text proposed by the Commission

(5) ‘leakage’ means any release of CO₂ from the storage complex;

Amendment

(5) ‘leakage’ means any **significant** release of CO₂ from the storage complex;

Or. de

Justification

Without the amendment, the definition of the concept of 'leakage' could be understood to suggest that total avoidance of leaks must be ensured. This is technically impossible and is also not justified on safety grounds.

Amendment 172

Karsten Friedrich Hoppenstedt

Proposal for a directive – amending act

Article 3 - point 5

Text proposed by the Commission

(5) ‘leakage’ means any release of CO₂ from the storage complex;

Amendment

(5) ‘leakage’ means any **measurable** release of CO₂ from the storage complex;

Or. de

Justification

The current wording could be taken to mean that preventing the release of even the smallest quantities of CO₂ is essential for the operation and termination of storage. This is technically impossible and is also not justified on safety grounds or with a view to combating climate change. The directive therefore needs to clarify that a ‘leakage’ is only deemed to exist when

there is a release from the storage complex which is measurable using the scientific knowledge currently available.

Amendment 173

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act

Article 3 - point 5

Text proposed by the Commission

(5) 'leakage' means any release of CO₂ from the storage **complex**;

Amendment

(5) 'leakage' means any release of CO₂ from the storage **site**;

Or. en

Justification

The storage site should be the point of reference to define leakage, in order to ensure maximum integrity and safety.

Amendment 174

Adam Gierek

Proposal for a directive – amending act

Article 3 - point 6

[OP6NRACTYES]

Text proposed by the Commission

(6) 'storage complex' means the storage site and surrounding geological domains which can have an effect on overall storage integrity and security (*i.e., secondary containment formations*);

Amendment

(6) 'storage complex' means the storage site, ***made up of an external section in which the injection equipment installed and an underground section in the form of a large empty area (Cambrian caverns or porous massifs)***, and surrounding geological domains which can have an effect on overall storage integrity and security;

Or. pl

Justification

A storage complex is made up not only of a storage site, but also of a surface section.

Amendment 175

Karsten Friedrich Hoppenstedt

Proposal for a directive – amending act

Article 3 - point 6 a (new)

Text proposed by the Commission

Amendment

(6a) "hydraulic unit" means a hydraulically connected pore space where pressure communication can be measured by technical means and which is bordered by flow barriers (faults, salt domes, lithological boundaries) or by the wedging out or outcropping of the formation;

Or. de

Justification

Several storage units may be contained within a structure known as a hydraulic unit. A hydraulic unit extends beyond the area covered by a 'storage complex' as defined in Article 3(6). Within such a structure, parallel injection operations may have a significant impact upon each other, and for that reason permits for storage there should be granted only to one operator at a time.

Amendment 176

Adam Gierek

Proposal for a directive – amending act

Article 3 - point 7

Text proposed by the Commission

Amendment

(7) 'exploration' means ***assessing*** potential storage complexes ***by means of a specific procedure*** including activities such as carrying out geological surveys by physical or chemical means and drilling to obtain geological information about strata in the

(7) 'exploration' means ***implementing specific procedures to explore*** potential storage complexes ***which have been drawn up on the basis of objective technical and environmental criteria***, including activities such as carrying out geological surveys by

potential storage complex;

physical or chemical means and drilling to obtain geological information about **geological** strata in the **area containing the** potential storage complex;

Or. pl

Justification

The amendment defines 'exploration' more precisely.

Amendment 177

Péter Olajos

Proposal for a directive – amending act
Article 3 - point 7

Text proposed by the Commission

(7) 'exploration' means assessing potential storage complexes by means of a specific procedure including activities such as carrying out **geological surveys by physical or chemical means** and drilling to obtain geological information about strata in the potential storage complex;

Amendment

(7) 'exploration' means assessing potential storage complexes by means of a specific procedure including activities such as carrying out **geophysical survey** and drilling to obtain geological information about strata in the potential storage complex;

Or. en

Justification

The term 'geophysical survey' is appropriate for these deep reservoirs in question instead of geological surveys. In addition, the notion "by physical or chemical means" is redundant. Therefore, we suggest deleting these words.

Amendment 178
Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act
Article 3 - point 8

Text proposed by the Commission

(8) 'exploration permit' means a written and reasoned decision authorising exploration issued by the competent authority pursuant to the requirements of this Directive;

Amendment

(8) 'exploration permit' means a written and reasoned decision authorising exploration ***in a geological formation which has been found to be suitable in accordance with the conditions set out in Article 4***, issued by the competent authority pursuant to the requirements of this Directive;

Or. en

Justification

No permits should be given for the exploration of sites, unless the site is absolutely safe.

Amendment 179
Adam Gierek

Proposal for a directive – amending act
Article 3 - point 8

Text proposed by the Commission

(8) 'exploration permit' means a written and reasoned decision authorising exploration issued by the competent authority pursuant to the requirements of this Directive;

Amendment

(8) 'exploration permit' means a written and reasoned decision authorising exploration issued by the competent authority ***of a Member State*** pursuant to the requirements ***of national law and*** of this Directive;

Or. pl

Justification

The amendment defines more precisely the authority issuing an exploration permit.

Amendment 180
Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act
Article 3 - point 9 a (new)

Text proposed by the Commission

Amendment

(9a) ‘transport operator’ means any natural or legal, private or public person, who is fully unbundled from the storage site operator and the user (i.e. power generator), and who operates or controls the transport of CO₂ to the storage site or to whom decisive economic power over the technical functioning of the transport network has been delegated under national legislation;

Or. en

Justification

Transport operator is defined and should be fully unbundled from the storage site operator and the power generator.

Amendment 181
Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act
Article 3 - point 10

Text proposed by the Commission

Amendment

(10) 'storage permit' means a written and reasoned decision authorising the geological storage of CO₂ in a storage site, issued by the competent authority pursuant to the requirements of this Directive;

(10) 'storage permit' means a written and reasoned decision authorising the geological storage of CO₂ in a storage site, ***and containing all the elements required under Article 9***, issued by the competent authority pursuant to the requirements of this Directive;

Or. en

Justification

A storage permit should include all the elements set out in Article 9.

Amendment 182
Evangelia Tzampazi

Proposal for a directive – amending act
Article 3 - point 11

Text proposed by the Commission

(11) 'substantial change' means a change which may have significant effects on the environment;

Amendment

(11) "substantial change" means **any** change which may have significant effects on the environment **or human health; this change could be identified as the outcome of a comparison of certain determinant values (i.e. such as pH, the degree of acidity or alkalinity of a solution) gathered before and after the injection of CO₂;**

Or. en

Justification

The comparison of certain determinant values between the situation “before” and “after” the injection of CO₂ in the storage site could provide with scientific certainty when interpreting the terms “changes” and “significance”. “Pre-injection” background data will be compared with the “after” which is data from the normal operation of the storage site phase, allowing for any differentiation to be easily perceived and evaluated. The determinants used should be significant descriptors of the environment and safety (i.e. such as pH).

Amendment 183
Péter Olajos

Proposal for a directive – amending act
Article 3 - point 11

Text proposed by the Commission

(11) 'substantial change' means **a** change which may have significant effects on the environment;

Amendment

(11) ‘substantial change’ means **any proposed/planned** change **in design or operation** which may have significant

effects on the environment *or human health*;

Or. en

Justification

The text is not clear in these definitions of 'substantial change' and 'significant irregularity' whether the difference in between these two terms is that one is deliberate while the other is just a consequence.

Amendment 184

Adam Gierek

**Proposal for a directive – amending act
Article 3 - point 11**

Text proposed by the Commission

(11) 'substantial change' means a change which may have **significant** effects on the environment;

Amendment

(11) 'substantial change' means a change which may have effects **on the health of inhabitants in the safety zone or** on the environment **on the surface or underground in the geological section of the storage site**;

Or. pl

Justification

The amendment is important because it spells out the notion of 'substantial change'.

Amendment 185

Kathalijne Maria Buitenweg, Jill Evans

**Proposal for a directive – amending act
Article 3 - point 11**

Text proposed by the Commission

(11) 'substantial change' means a change which may have **significant** effects on the

Amendment

(11) 'substantial change' means a change which may have **adverse** effects on the

environment;

environment *or human health*;

Or. en

Justification

A change which may harm public health should also be seen as a substantial change.

Amendment 186

Karsten Friedrich Hoppenstedt

**Proposal for a directive – amending act
Article 3 - point 11**

Text proposed by the Commission

(11) 'substantial change' means a change which may have significant effects on the environment;

Amendment

(11) 'substantial change' means a change which may have significant effects on the environment *or human health*;

Or. de

Justification

Serves to bring the text into line with the terminology used in Articles 1(2) and 4(2).

Amendment 187

Kathalijne Maria Buitenweg, Jill Evans

**Proposal for a directive – amending act
Article 3 - point 12**

Text proposed by the Commission

(12) 'CO₂ stream' means a flow of substances that results from carbon dioxide capture processes;

Amendment

(12) 'CO₂ stream' means a flow of substances ***containing no less than 98% CO₂*** that results from carbon dioxide capture processes, ***into which no wastes or other matter have been added for the purpose of disposing of them and which does not contain corrosive substances, such as H₂S and SO₂***;

Justification

CO₂ streams should be as pure as possible and should not contain corrosive substances, as these entail increased risks, both during transport and during storage.

Amendment 188
Evangelia Tzampazi

Proposal for a directive – amending act
Article 3 - point 12

Text proposed by the Commission

(12) 'CO₂ stream' means a flow of substances that results from carbon dioxide capture processes;

Amendment

(12) 'CO₂ stream' means a flow of substances that results from carbon dioxide capture processes **and consists of no less than 99,9% CO₂**;

Justification

Mitigating greenhouse gas emissions requires storage sites to be safe over long periods of time. Risks to the integrity of long-term storage projects could increase markedly if substantial quantities of impurities are co-disposed with the CO₂. Impurities such as SO_x increase leakage risks and thus jeopardise the stated primary purpose of CCS. Additionally, impurities in the CO₂ stream can have practical impacts on CO₂ transport and storage, as well as potential health, safety and environmental effects. Established technologies are capable of purifying CO₂ streams to greater than 99.9%.

Amendment 189
Adam Gierek

Proposal for a directive – amending act
Article 3 - point 12

Text proposed by the Commission

(12) 'CO₂ stream' means a flow of **substances** that **results** from carbon dioxide **capture processes**;

Amendment

(12) 'CO₂ stream' means a flow of **products** that **result** from **the process of burning fossil fuels containing at least 90%** carbon

dioxide;

Or. pl

Justification

The amendment makes the text more precise.

Amendment 190

María Sornosa Martínez, Teresa Riera Madurell, Inés Ayala Sender

**Proposal for a directive – amending act
Article 3 - point 16**

Text proposed by the Commission

(16) 'significant irregularity' means any irregularity in the injection or storage operations **or** in the condition of the site itself, **which implies** the risk of a leakage;

Amendment

(16) 'significant irregularity' means any irregularity in the injection or storage operations, in the condition of the site itself **or in the performance of the storage complex that materially increases** the risk of a leakage;

Or. en

Justification

Both aspects related to the injection operations and the evolution of the storage complex are complementary.

Amendment 191

Lambert van Nistelrooij

**Proposal for a directive – amending act
Article 3 - point 16**

Text proposed by the Commission

(16) 'significant irregularity' means any irregularity in the injection or storage operations or in the **condition of the site itself, which implies** the risk of a leakage;

Amendment

(16) 'significant irregularity' means any irregularity in the injection or storage operations or in the **storage complex that increases** the risk of a leakage;

Amendment 192
Bairbre de Brún, Umberto Guidoni

Proposal for a directive – amending act
Article 3 - point 16

Text proposed by the Commission

(16) 'significant irregularity' means any irregularity in the injection or storage operations or in the condition of the site itself, which implies the risk of a leakage;

Amendment

(16) 'significant irregularity' means any irregularity in the injection or storage operations or in the condition of the site itself, which implies the risk of a leakage ***or risk to the environment or human health;***

Justification

The prime goal is to ensure that the storage of CO₂ is environmentally safe and safe for human health.

Amendment 193
Karsten Friedrich Hoppenstedt

Proposal for a directive – amending act
Article 3 - point 16

Text proposed by the Commission

(16) 'significant irregularity' means any irregularity in the injection or storage operations or in the condition of the site itself, which implies the risk of a leakage;

Amendment

(16) 'significant irregularity' means any irregularity in the injection or storage operations or in the condition of the site itself, which implies the risk of a leakage ***or risks to the environment or human health;***

Justification

In view of the objective of geological storage (Article 1(2)) and the scope of Article 4(2), the definition of 'significant irregularity' must also cover risks to the environment and human health in addition to leakage risks. The protection of the environment and human health plays a role not only in the selection of the storage site but also in its operation and in any corrective measures which may be needed, and is a vital prerequisite for public acceptance.

Amendment 194

Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act Article 3 - point 17

Text proposed by the Commission

(17) 'corrective measures' means any measures taken to correct significant irregularities ***or to close leakages*** in order to prevent or ***minimise the release of CO₂ from the storage complex***;

Amendment

(17) 'corrective measures' means any measures taken to correct significant irregularities in order to prevent or ***stop any leakage***;

Or. en

Justification

Corrective measures should not minimise but stop leakages. Small annual leakages can have large effects after some time. If a closed storage site has an annual leakage of, e.g. 1 %, then all stored CO₂ would leak into the atmosphere after a few decades.

Amendment 195

Evangelia Tzampazi

Proposal for a directive – amending act Article 3 - point 17

Text proposed by the Commission

(17) 'corrective measures' means any measures taken to correct significant irregularities or to close leakages in order to prevent or ***minimise*** the release of CO₂ from the storage complex;

Amendment

(17·) 'corrective measures' means any measures taken to correct significant irregularities or to close leakages in order to prevent or ***stop*** the release of CO₂ from the storage complex;

Justification

The goal of the Directive being the environmentally safe use of the CCS technology that would help address climate change considerations by mitigating GHG emissions, the corrective measures should aim at preventing or stopping the release of CO₂ from the storage site.

Amendment 196
Karsten Friedrich Hoppenstedt

Proposal for a directive – amending act
Article 3 - point 18

Text proposed by the Commission

(18) 'closure' of a CO₂ storage site means the definite cessation of CO₂ injection into that storage site;

Amendment

(18) 'closure' of a CO₂ storage site means the definite cessation of CO₂ injection into that storage site ***including decommissioning measures such as dismantling the injection apparatus and sealing off the storage site;***

Justification

In a mining context the term 'closure' includes decommissioning activities and should therefore be used in that sense here. The term is not used uniformly in the subsequent text, meaning in some cases, as here in paragraph 18, solely 'cessation of CO₂ injection operations' and in other contexts including decommissioning activities.

Amendment 197
Adam Gierek

Proposal for a directive – amending act
Article 3 - point 18

Text proposed by the Commission

(18) 'closure' of a CO₂ storage site means the ***definite*** cessation of CO₂ injection into

Amendment

(18) 'closure' of a CO₂ storage site means the cessation of CO₂ injection into ***the***

that storage site;

***geological section of the storage complex
and the elimination of any leaks by
sealing CO₂ escape points;***

Or. pl

Justification

The amendment more precisely defines 'closure' of a CO₂ storage site.

Amendment 198

Adam Gierek

Proposal for a directive – amending act

Article 3 - point 20

Text proposed by the Commission

(20) 'transport network' means the network of pipelines, including associated booster stations, for the transport of CO₂ to the storage *site*.

Amendment

(20) 'transport network' means the ***installation made up of a*** network of pipelines, ***together with its valves, reservoirs and pump,*** including associated booster stations, for the ***continuous*** transport of CO₂ to the storage ***complex,*** ***and also comprising tanks for individual transport.***

Or. pl

Justification

The amendment defines 'transport network' more precisely.

Amendment 199
Jerzy Buzek, Bogusław Sonik

Proposal for a directive – amending act
Article 3 - point 20 a (new)

Text proposed by the Commission

Amendment

(20a) ‘capture ready plant ’ means a combustion plant [with a capacity of 300 megawatts (thermal) or more] which has suitable space on the installation site for the equipment necessary to capture and compress CO₂ and where the availability of suitable storage sites and suitable transport facilities has been properly assessed.

Or. en

Justification

The definition would be necessary for the Polish proposal of changes to the text of Article 35a and deletion of Article 32.

Amendment 200
Christian Ehler, Dragoş Florin David, Rumiana Jeleva, Jan Březina, Werner Langen, Herbert Reul, Jerzy Buzek, Thomas Ulmer

Proposal for a directive – amending act
Article 3 - point 20 a (new)

Text proposed by the Commission

Amendment

(20a) 'hydraulic unit' means a hydraulically connected pore space where pressure communication can be measured by technical means.

Or. en

Justification

The operation of different storage facilities within the same hydraulic unit necessarily impacts the other facilities operated in the hydraulic unit. Within one hydraulic unit, storage permits

may be issued to only one operator at any one time.

Amendment 201
Péter Olajos

Proposal for a directive – amending act
Article 3 - point 20 b (new)

Text proposed by the Commission

Amendment

(20b) 'monitoring' means the gathering of data and reporting obligations, in all possible ways which are described in Annex I, to ensure the environmentally safe storage of CO₂ in three phases:

(a) pre-injection or background data,

(b) during-injection, or during the storage site operation, and

(c) closure, and post-closure or permanent monitoring obligations.

All monitoring phases should be subject to adequate and separate verification and validation procedures, pursuant to the requirements of this Directive;

Or. en

Justification

Monitoring is the process of checking to ensure:

a. a “set limit” is met,

b. recording that this monitoring activity occurred, and

c. reporting of the results.

Amendment 202
Evangelia Tzampazi

Proposal for a directive – amending act
Article 3 - point 20 b (new)

Text proposed by the Commission

Amendment

(20b) 'monitoring' means the gathering of data and reporting obligations, in accordance with Annex I, to ensure the environmentally safe storage of CO₂ in three phases:

- (a) pre-injection or background data,***
- (b) during-injection, or during the storage site operation, and***
- (c) closure, and post-closure or permanent monitoring obligations.***

All monitoring phases should be subject to adequate and separate verification.

Or. en

Justification

Monitoring should be conceived as the process of checking to ensure that the goal of the CCS process is achieved and that recording this monitoring activity has occurred. Monitoring of the process plays a vital role both for ensuring public acceptance of CCS and the environmentally safe use of the technology in order to meet the main goal that is the mitigation of CO₂ emissions.

Amendment 203
Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act
Article 3 - point 20 c (new)

Text proposed by the Commission

Amendment

(20c) 'verification' means the process of ensuring the proper - according to scientific knowledge - monitoring procedures are in place;

Justification

Monitoring should be accompanied by verification and validation, in order to ensure the safety of the site.

Amendment 204

Vittorio Prodi

**Proposal for a directive – amending act
Article 3 - point 20 d (new)**

Text proposed by the Commission

Amendment

(20d) 'charcoal' means the carbon structure resulting from pyrolytic processing of cellulosic biomass.

Or. en

Amendment 205

Vittorio Prodi

**Proposal for a directive – amending act
Article 3 - point 20 e (new)**

Text proposed by the Commission

Amendment

(20e) 'soil' means the superficial layer of the land ecosystem that supports vegetation.

Or. en

Amendment 206
Evangelia Tzampazi

Proposal for a directive – amending act
Article 3 - point 20 f (new)

Text proposed by the Commission

Amendment

(20f) 'demonstration projects' means projects intended to demonstrate by 2014 the environmentally safe long-term application of CO₂ geological storage, pursuant to the requirements of this Directive.

Or. en

Justification

The demonstration projects stated in the 2007 and 2008 Spring Council Conclusions will provide for the necessary practical experience with regard to the deployment of CCS technology in industrial level.

Amendment 207
Kathalijne Maria Buitenweg, Jill Evans

Proposal for a directive – amending act
Article 3 - point 20 g (new)

Text proposed by the Commission

Amendment

(20g) 'validation' means the process of ensuring that the "set limits" control adequately the risks of CO₂ leakage and of adverse effects on the environment or public health and safety;

Or. en

Justification

Monitoring should be accompanied by verification and validation, in order to ensure the safety of the site.

