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Subject: Proposal for a Directive of the European Parliament and of the Council on the geological storage of carbon dioxide and amending Council Directives 85/337/EEC, 96/61/EC, Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC and Regulation (EC) No 1013/2006

Delegations will find attached a Presidency compromise text (articles) concerning the above proposal, discussed at the meeting of the Working Party on the Environment on 29 September 2008.

Proposal for a
DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
on the geological storage of carbon dioxide and amending Council Directives 85/337/EEC,
96/61/EC, Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC and Regulation (EC)
No 1013/2006

(*p.m.: recitals*)

CHAPTER 1

Subject-matter, scope and definitions

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Article 1

Subject matter and purpose

1. This Directive establishes a legal framework for the environmentally safe geological storage² of carbon dioxide (hereinafter "CO₂") to contribute to the fight against climate change.
2. The purpose of environmentally safe geological storage of CO₂ is permanent containment of CO₂ in such a way as to prevent and, where this is not possible, [...] eliminate³ as far as possible negative effects [...] and any risk to the environment and human health⁴.

¹ MT/DK: parliamentary scrutiny reservation.

All delegations: scrutiny reservations on the Presidency compromise text.

² EE/SK: add "and mineral storage". Cion/DE/AT/NL/FI/DK: opposed to this addition.

³ EL: delete "as far as possible".

⁴ ES: add "or other legitimate uses of the maritime area" UK/FR/NL: add "or other uses of surface or subsurface space" to ensure coherence with OSPAR (+ consequent amendments in Articles 3 and 4 in 7940/08 ADD 1 and 3). Cion: reservation on these suggestions.

Article 2

Scope and prohibition

1. This Directive shall apply to the geological storage of CO₂ in [...] 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).
2. This Directive shall not ⁵ apply to geological storage of CO₂ undertaken for research, development or testing of new products and processes with a total intended storage below 100 kilo tonnes.⁶
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 ⁷.
4. The storage of CO₂ in the water column shall not be permitted.

⁵ EL: delete "not". The Directive should apply to R&D and to demonstration projects only and the rest of the articles should be adjusted accordingly. A wider scope could be envisaged later, when the results of the demonstration phase will be known. Cion/other delegations do not support this approach.

⁶ NL: add (new) "2a. This Directive shall not apply to storage permits referred to in Article 6 which have been granted prior to the entry into force of this Directive". Cion considers this incorrect, some aspects (e.g. closure and postclosure) will be relevant. Pres proposes to deal with this question in a new article on transitional measures.

⁷ See also new indent in Article 35a on prospects for CCS in third countries.

Article 3
Definitions

For the purposes of this Directive the following definitions ⁸ apply:

- (1) 'geological storage of CO₂' means injection accompanied by ⁹ storage of CO₂ streams in underground geological formations;
- (2) 'water column' means the vertically continuous mass of water from the surface to the bottom sediments of a water body;
- (3) 'storage site' means a defined area within a geological formation used for the geological storage of CO₂ ¹⁰ and associated surface and injection facilities;

⁸ EL, considering the proposal not sufficiently restrictive, suggests modifying the definitions on "geological storage", "water column", "storage site", "leakage", "storage complex", "exploration", "exploration permit", "storage permit", "substantial change", "closure", "post-closure", "transport network". Proposes also to delete definitions of "CO₂ stream" (replaced by "pure CO₂ stream") and "migration", and to clarify the definition of "significant irregularity". Finally EL suggests defining "demonstration projects", "monitoring", "verification" and "validation" (7940/08 ADD 1).

UK suggests amending the definitions of "CO₂ stream" (7940/08 ADD 1) and "leakage"(in connection to EOR processes (enhanced oil recovery),"substantial change" and "significant irregularity"(10915/08). Cion is opposed to the suggestions in 10915/08. The present definition of "storage site" is sufficient and covers the concerns expressed by UK on EOR. SK suggests modifications of "storage site", "geological formation", "storage complex", "CO₂ plume", "migration", "corrective measures" (9555/08).

ES suggests amending the definition of "CO₂ stream" and adding a definition of "incidental associated substances" to be coherent with concepts in OSPAR (10422/08). NL: open to the latter suggestions while Cion considers these unnecessary because the text is already compatible with OSPAR.

HU (along the lines suggested by EL) asks to amend the definitions of "storage site", "leakage", "exploration" "post-closure" and to delete the definition of "CO₂ plume" because inconsistent with (15) "migration" (10915/08). Cion does not support these suggestions.

PL: add a definition of "capture ready".

⁹ EL/MT/IE: add "environmentally safe". Cion/Pres find this addition inappropriate for a definition. EL suggests adding a definition of "environmentally safe".

¹⁰ AT/DE/EL: reservation on the rest of this sentence , related to enhanced oil recovery.

- (4) 'geological formation' means a lithostratigraphical subdivision within which distinct rock layers can be found and mapped;
- (5) 'leakage' means any release of CO₂ from the storage complex;
- (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);
- (7) 'exploration' means assessing potential storage complexes for the purposes of geologically storing CO₂ by means of [...] activities intruding in the subsurface such as [...] ¹¹ drilling to obtain geological information about strata in the potential storage complex and, as appropriate, carrying out injection tests in order to characterise the storage site;
- (8) 'exploration permit' means a written and reasoned decision authorising exploration, and specifying the conditions under which it may take place, issued by the competent authority pursuant to the requirements of this Directive;
- (9) 'operator' means any natural or legal, private or public person who operates or controls the storage site or to whom decisive economic power over the technical functioning of the storage site has been delegated according to national legislation;
- (10) 'storage permit' means a written and reasoned decision (or decisions) authorising the geological storage of CO₂ in a storage site by the operator, and specifying the conditions under which it may take place, issued by the competent authority pursuant to the requirements of this Directive;

¹¹ Recital 16 should be amended accordingly.

- (11) 'substantial change' means any change not provided for in the storage permit¹² which may have significant effects on the environment or human health;
- (12) 'CO₂ stream' means a flow of substances that results from carbon dioxide capture processes;
- (13) 'waste' means the substances defined as waste in point (a) of Article 1(1) of Directive 2006/12/EC;
- (14) 'CO₂ plume' means the dispersing volume of CO₂ in the geological formation;
- (15) 'migration' means the movement of CO₂ within the storage complex;
- (16) 'significant irregularity' means any irregularity in the injection or storage operations or in the condition of the storage complex itself, which implies the risk of a leakage or risk to the environment or human health;
- (16a) "risk" means the combination of the probability of occurrence of damage and the magnitude of damage.
- (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;
- (18) 'closure' of a storage site means the definite cessation of CO₂ injection into that storage site¹³;

¹² HU: to clarify that there are no overlaps with "significant irregularities" , "substantial change" should mean "any proposed/planned change in the design or operation which may have ... (rest unchanged)".

¹³ DE/EL: add a reference to sealing and removal of injection facilities and revise the text accordingly (see 10915/08 also in connection with remarks on transfer of responsibility).
Cion: reservation, these operations should take place after closure, at a later stage.

- (19) 'post-closure' means the period after the closure of a storage site, including the period after the transfer of responsibility to the competent authority;
- (20) 'transport network' means the network of pipelines, including associated booster stations, for the transport of CO₂ to the storage site.

CHAPTER 2

Site selection and exploration permits

Article 4

Selection of storage sites

1. Member States retain the right to determine the areas from which storage sites may be selected pursuant to the requirements of this Directive.¹⁴ This shall include the right of Member States not to allow for any storage in parts or in the whole of their territory.
2. The suitability of a geological formation for use as a storage site shall be determined through a characterisation and assessment of the potential storage complex and surrounding¹⁵ area pursuant to the criteria specified in Annex I.
3. A geological formation shall only be selected as a storage site, if under the proposed conditions of use there is no significant¹⁶ risk of leakage, and if no significant¹⁷ environmental or health risks exist.

¹⁴ AT/BG/DK ask to specify further that MS can decide not to select storage sites also on the basis of other elements (financial and economic essential interest). Text suggestions for Article 4, recital 15a(new) and Article 4a(new) in 9555/08. Cion: reservation, the present text is sufficient.

¹⁵ HU: replace "surrounding" by "potentially affected". DE/AT: open to this suggestion while Cion does not support it, because it could limit the scope of the assessment.

¹⁶ EL: reservation on "significant". Alternative approach suggested in 7940/08 (defining "significant risks").

HU: add a reference to the ability to monitor the site (10915/08). Cion finds this addition unnecessary, see Art 7(5) on applications for storage permits.

¹⁷ ES: add "present or future". Cion: reservation, this is already implicit.

Article 5
Exploration permits

1. Where Member States determine that exploration is required to generate the information necessary ¹⁸ for the site selection pursuant to Article 4, they shall ensure that no such exploration takes place without an exploration permit ¹⁹.
2. Member States shall 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 or refused on the basis of objective, published criteria.
3. The duration of a permit should not exceed the period necessary to carry out the exploration for which it is granted. However, the Member States may prolong the permit where the stipulated duration is insufficient to complete the exploration in question and where the exploration has been performed in accordance with the permit. Exploration permits shall be granted for a limited volume area.
4. The holder of an exploration permit shall have the sole right to explore the potential CO₂ storage complex. [...] Member States shall ensure that no conflicting uses of the complex are permitted during the period of validity of the permit.

¹⁸ EL: add a reference to the need for "pre-injection monitoring data" here and in a new paragraph 4a (7940/08). IE: open to this suggestion.

¹⁹ UK/NL: add "or general rules".

CHAPTER 3

Storage permits

Article 6

Storage permits

1. Member States shall ensure that no storage site is operated without a storage permit and that no conflicting uses are permitted on such site.
2. Member States shall ensure that the procedures for the granting of storage permits are open to all entities possessing the necessary capacities and that the permits are granted on the basis of objective, published criteria.
3. Without prejudice to the requirements of this Directive, priority for the granting of a storage permit [...] for a given site shall be given to the holder of the exploration permit [...] for that site, provided that the exploration of that site is completed, that any condition set in the exploration permit has been complied with, and that the application for a storage permit is made during the period of validity ²⁰ of the exploration permit. Member States shall ensure that no conflicting uses of the complex are allowed during the permit procedure.

Article 7

Applications for storage permits

Applications to the competent authority for storage permits shall include at least the following information:

- (1) name and address of the potential operator;
- (2) proof of the technical competence of the potential operator;

²⁰ UK: set the deadline one year after expiry of the permit.

- (3) the characterisation of the storage site and complex and an assessment of the expected security of the storage pursuant to Article 4(2) and (3);

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- (4) the total quantity of CO₂ to be injected and stored as well as the prospective sources and transport methods ²², the composition of CO₂ streams, the injection rates and pressures, and the location of injection facilities;
- (5) a proposed monitoring plan pursuant to Article 13(2) *;
- (6) a proposed corrective measures plan pursuant to Article 16(2);
- (7) a proposed provisional post-closure plan pursuant to Article 17(3);
- (8) the information provided pursuant to Article 5 of Directive 85/337/EEC;
- (9) proof that the financial security or other equivalent provision as required under Article 19 will be valid and effective ²³ before commencement of injection.

Article 8

Conditions for storage permits

The competent authority shall only issue a storage permit if the following conditions are met:

²¹ DE/AT: add (3a) "conflicting uses of the storage site and complex". Cion does not support this addition, the list is non exclusive and this can be requested by the competent authorities if necessary.

²² IT: delete "transport methods" and add a reference to the accessibility of the site at the end of the sentence (10915/08). Cion/Pres: reservation, this information might not be available at the stage of permit application.

* See added reference to significant irregularities in Article 13.

²³ PL: the period of validity should be extended to prior stages, delete the rest of this sentence. Cion: reservation, does not find this request to be justified.

- (1) the competent authority is satisfied that:
 - (a) all relevant requirements of this Directive ²⁴ are met;
 - (b) the operator is technically competent and reliable to operate and control the site and that professional and technical development and training of the operator and all staff are provided;
- (2) the competent authority has considered the Commission opinion, when such an opinion has been issued, on the draft permit pursuant to Article 10. ²⁵

Article 9

Contents of storage permits

The permit shall contain at least the following:

- (1) name and address of the operator;
- (2) precise location and delimitation of the storage site and storage complex;
- (3) requirements for storage operation, the total quantity of CO₂ authorised to be geologically stored, the reservoir pressure limits, and maximum injection rates and pressures;
- (4) requirements for the composition of the CO₂ stream and the CO₂ acceptance procedure pursuant to Article 12, and, if necessary, further requirements for injection and storage in particular to prevent significant irregularities;
- (5) the approved monitoring plan, the obligation to implement the plan and requirements for updating it pursuant to Article 13 as well as reporting requirements pursuant to Article 14;

²⁴ DE/IE/UK: add "and of the relevant Community law".

PT: delete the rest of this sentence and the chapeau in (1) to avoid repetitions.

²⁵ FI/FR/NL/UK/SE/PL: delete point 2 (in connection to the reservations on Articles 10 and 18 on the suggested procedure. Cion/other delegations do not support this suggestion.

- (6) the requirement to notify the competent authority in case of significant irregularities or leakages, the approved corrective measures plan and the obligation to implement the corrective measures plan in case of significant irregularities or leakages pursuant to Article 16;
- (7) conditions for closure and the approved provisional post-closure plan referred to in Article 17;
- (8) provisions on changes, review, updating and withdrawal of the storage permit pursuant to Article 11;
- (9) the requirement to establish and maintain the financial security or any other equivalent pursuant to Article 19.

Article 10

Commission review of draft storage permits ²⁶

1. Member States shall inform the Commission of all draft storage permits, the permit applications and any other material taken into consideration by the competent authority when adopting its draft decision. Within six months of their submission to the Commission, the Commission may issue a non-binding opinion on the draft permits. If the Commission decides not to issue an opinion, it shall inform the Member State within one month of submission of the draft permit.
2. The competent authority shall notify the final decision to the Commission, stating the reasons if it deviates from the Commission opinion.

²⁶ UK/FR/SE/FI/NL suggest (7940/08 ADD 2 and PL in 12617/08 along similar lines) an ex-post information of the Commission within one month of issuing a permit coupled with an ex-ante opinion on the draft permit if the competent authority so requires. Cion, supported by the other delegations: reservation on this suggestion. DK: open to solutions aimed at shortening the delays.

Article 11

Changes, review, update and withdrawal of storage permits

1. The operator shall inform the competent authority of any changes planned in the operation of the storage site, including changes concerning the operator. Where appropriate, the competent authority shall update the storage permit or the permit conditions.
2. Member States shall ensure that no substantial change is implemented without a new or updated storage permit issued in accordance with this Directive.
3. The competent authority shall review and where necessary update or, as a last resort²⁷, withdraw the storage permit:
 - (a) if it has been notified or made aware of significant irregularities or leakages pursuant to Article 16(1); or
 - (b) if the reports submitted pursuant to Article 14 or the environmental inspections carried out pursuant to Article 15 show non-compliance with permit conditions or risks of significant irregularities or leakages; or
 - (c) if it is aware of any other failure by the operator to meet the permit conditions;
 - (ca) if it appears necessary on the basis of the latest scientific findings and technological progress;
 - (d) without prejudice to points (a) to (ca), five years after issuing the permit and then every²⁸ ten years.

²⁷ ES: replace "as a last resort" by "where necessary".

²⁸ PL: delete (d). DE/EL/BG: replace "ten years" by " seven years".

PL asks to specify in the chapeau of paragraph 3 that the competent authority will not have to pay the costs of any requested change to the permit.

4. After a permit has been withdrawn pursuant to paragraph 3, the competent authority shall either issue a new storage permit or close the storage site pursuant to point (c) of Article 17(1). Until a new storage permit has been issued, the competent authority shall temporarily take over all legal obligations relating to acceptance criteria, monitoring and corrective measures pursuant to the requirements laid down in this Directive, the surrender of allowances²⁹ in cases of leakage pursuant to Directive 2003/87/EC and preventive and remedial action pursuant to Articles 5(1) and 6(1) of Directive 2004/35/EC. The competent authority shall recover any costs incurred from the former operator including by drawing on the financial security referred to in Article 19. In case of closure of the storage site pursuant to point (c) of Article 17(1), [...] Article 17(4) shall apply. [...]

²⁹ Several delegations have a specific scrutiny reservation on Article 11(4) (and on related Articles 17(4) and 18 on transfer of responsibility). ES/EL/LV: reservation on the inclusion of a reference to surrender of allowances from the ETS.

CHAPTER 4

Operation, closure and post-closure obligations

Article 12

CO₂ stream acceptance criteria and procedure

1. A CO₂ stream shall consist overwhelmingly³⁰ of carbon dioxide. To this end, no waste and other matter may be added for the purpose of disposing of that waste or other matter. However, a CO₂ stream may contain incidental associated substances from the source, capture or injection process. Concentrations of those substances shall be below levels that would:
 - (a) adversely affect the integrity of the storage site or the relevant transport infrastructure,
 - (b) pose a significant risk to the environment or
 - (c) breach the requirements of applicable Community legislation.
- 1a. The Commission may adopt guidelines to help identify the case by case conditions applicable for respecting the criteria laid down in paragraph 1.
2. Member States shall ensure that when injecting and storing a CO₂ stream:
 - (a) before or at the time of delivery, or of the first in a series of deliveries, the operator can show, by means of the appropriate documentation, that the CO₂ stream in question can be accepted at the site according to the conditions laid out in the permit, and that it fulfils the composition criteria set out in paragraph 1;
 - (b) the operator keeps a register of the quantities and characteristics of the CO₂ streams delivered³¹ including the composition of those streams.

³⁰ See also a new indent in Article 35a (2) on the review.

³¹ NL: delete the rest of this sentence, this requirement is too burdensome. Cion: reservation on this suggestion.

Article 13

Monitoring

1. Member States shall ensure that the operator carries out monitoring of the injection facilities, the storage complex (including where possible the CO₂ plume), and where appropriate the surrounding environment for the purpose of:
 - (a) comparison between the actual and modelled behaviour of CO₂ and, if appropriate, formation water, in the storage site;³²
 - (aa) detecting significant irregularities;
 - (b) detecting migration of CO₂;
 - (c) detecting leakage of CO₂;
 - (d) detecting significant adverse effects for the surrounding environment, human populations, or for users of the surrounding biosphere;³³
 - (e) assessing the effectiveness of any corrective measures taken pursuant to Article 16;
 - (f) updating the assessment of the safety and integrity of the complex in the short- and long-term including the assessment of whether the stored CO₂ will be completely and permanently contained.

³² DE/EL: add " verifying the amount of stored CO₂; UK opposes this proposal while Cion notes that this would be calculated from the ETS data given that direct verification will not be possible.

³³ DE: amend as follows: detecting [...] adverse effects for the surrounding environment, the water of the hydrological cycle, human populations, or for users of the surrounding biosphere.

2. The monitoring shall be based on a monitoring plan designed by the operator pursuant to the requirements laid out in Annex II, submitted to and approved by the competent authority pursuant to Articles 7(5) and 9(5). The plan shall be updated pursuant to the requirements laid down in Annex II and in any case every five years to take account of changes to the assessed risk of leakage, changes to the assessed risks to the environment and human health, and technical developments. Updated plans shall be re-submitted for approval to the competent authority.

Article 14

Reporting by the operator

At a frequency to be determined by the competent authority, and in any event at least once a year, the operator shall submit to the competent authority:

- (1) all results of the monitoring pursuant to Article 13 in the reporting period including information on the monitoring technology employed;
- (2) the quantities and characteristics of the CO₂ streams delivered, including composition of those streams, in the reporting period³⁴, registered pursuant to point (b) of Article 12(2);
- (3) proof of the maintenance of the financial security pursuant to Articles 19 and 9(9);
- (4) any other information the competent authority considers relevant for the purposes of assessing compliance with permit conditions and increasing the knowledge of CO₂ behaviour in the storage site.

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³⁴ ES: add “including the concentration of incidental associated substances” and add a corresponding definition in Article 3. Cion considers this unnecessary.

³⁵ SE, supported by EL/IE/SK, suggests adding a provision foreseeing an independent verification of the reports. Cion considers that the inspection provisions in Article 15 are sufficient.

Article 15
Inspections

1. ³⁶ Member States shall ensure that the competent authorities organise a system of routine and non-routine inspections of all storage complexes within the scope of this Directive for the purposes of checking and promoting compliance with the requirements of the Directive and of monitoring the effects on the environment and on human health.
2. Inspections should include activities such as visits of the surface installations, including the injection facilities, assessing the injection and monitoring operations carried out by the operator, and checking all relevant records kept by the operator.
3. Routine inspections shall be carried out at least once a year until three years after closure and every five years until transfer of responsibility to the competent authority has occurred. They shall examine the relevant injection and monitoring facilities as well as the full range of relevant effects from the storage complex on the environment and on human health.
4. Non-routine inspections shall be carried out:
 - (a) if the competent authority has been notified or made aware of leakages or significant irregularities pursuant to Article 16(1);
 - (b) if the reports pursuant to Article 14 have shown insufficient compliance with the permit conditions;
 - (c) to investigate serious complaints related to the environment or human health;
 - (d) in other situations where the competent authority considers this appropriate.

³⁶ NL: add "Taking into account the Communication on the review of Recommendation 2001/331/EC providing for minimum criteria for environmental inspections Member States shall ensure...(rest unchanged)" IE/DE: open to this suggestion.

5. Following each inspection, the competent authority shall prepare a report on the results of the inspection. The report shall evaluate compliance with the requirements of the Directive and indicate whether or not further action is necessary. The report shall be communicated to the operator concerned and shall be publicly available in accordance with relevant Community legislation within two months of the inspection.

Article 16

Measures in case of significant irregularities or leakages

1. Member States shall ensure that in case of significant irregularities or leakages, the operator immediately notifies the competent authority,³⁷ and takes the necessary corrective measures. In cases of leakages and significant irregularities which imply the risk of leakage, the operator shall also notify [...] the competent authority pursuant to Directive 2003/87/EC [...].
2. The corrective measures referred to in paragraph 1 shall be taken as a minimum on the basis of a corrective measures plan submitted to and approved by the competent authority pursuant to Articles 7(6) and 9(6);
3. The competent authority may at any time request the operator to take the necessary corrective measures. These may be additional to or different from than those laid out in the corrective measures plan. It may also at any time take corrective measures itself.³⁸
4. If the operator fails to take the necessary corrective measures, the competent authority shall take the necessary corrective measures itself.³⁹

³⁷ UK: replace the rest of this sentence by " and takes corrective measures where necessary".

³⁸ EL: reservation. This shifts the responsibility to the competent authority.

IT: the competent authority should take action only in case of fault or leakages. UK: action should be taken only in case of fault of the operator.

³⁹ BG: add the possibility to delegate this obligation to another natural or legal person (7940/08 ADD 5).

SK considers that the text might not be consistent with Article 11(3).

- 4a. The competent authority shall recover the costs incurred in relation to the measures referred to in paragraphs 3 and 4 from the operator including by drawing on the financial security pursuant to Article 19.

Article 17

Closure and post-closure obligations

1. A storage site shall be closed:
 - (a) if the relevant conditions stated in the permit have been met;
 - (b) at the documented request of the operator, after authorisation of the competent authority; or
 - (c) if the competent authority so decides after the withdrawal of a storage permit pursuant to Article 11(3).
2. After a storage site has been closed pursuant to paragraph 1 points (a) or (b), the operator remains responsible for monitoring, reporting and corrective measures, pursuant to the requirements laid down in this Directive as well as for all obligations relating to the surrender of allowances in case of leakages pursuant to Directive 2003/87/EC and preventive and remedial actions pursuant to Article 5 to 8 of Directive 2004/35/EC until the responsibility for the storage site is transferred to the competent authority pursuant to Article 18(1) to (4). The operator shall also be responsible for sealing the storage site and removing the injection facilities.

3. The obligations referred to in paragraph 2 shall be fulfilled on the basis of a post-closure plan designed by the operator based on best practice and in accordance with the requirements laid down in Annex II. A provisional post-closure plan shall be submitted to and approved by the competent authority pursuant to Articles 7(7) and 9(7). Prior to the closure of a storage site pursuant to points (a) or (b) of paragraph 1, the provisional post-closure plan shall be:
- (a) updated as necessary, in particular in view of best practice;
 - (b) submitted to the competent authority for its approval; and
 - (c) approved by the competent authority as the definitive post-closure plan.
4. After a storage site has been closed pursuant to paragraph 1 point (c), the competent authority shall [...] be responsible for monitoring, and corrective measures pursuant to the requirements laid down in this Directive as well as for all obligations relating to the surrender of allowances in case of leakages pursuant to Directive 2003/87/EC and preventive and remedial action pursuant to Article 5(1) [...] and 6(1) of Directive 2004/35/EC. The post-closure requirements pursuant to this Directive shall be fulfilled by the competent authority on the basis of the provisional post-closure plan [...] referred to in Article 17(3), which shall be updated as necessary.
- 4a. The competent authority shall recover the costs incurred in relation to the measures referred to in paragraph 4 from the operator including by drawing on the financial security pursuant to Article 19.

Article 18

Transfer of responsibility

1. Where a storage site has been closed pursuant to points (a) or (b) of Article 17(1), all legal obligations relating to monitoring and corrective measures pursuant to the requirements laid down in this Directive, the surrender of allowances in cases of leakage pursuant to Directive 2003/87/EC and preventive and remedial action pursuant to Articles 5(1) [...] and 6(1) of Directive 2004/35/EC, shall be transferred to the competent authority on its own initiative or upon request from the operator, if [...] the following conditions are met:

- (a) [...]all available ⁴⁰ evidence indicates that the stored CO₂ will be completely and permanently contained;
- (b) a minimum period after closure of the site to be determined at national level has elapsed;
- (c) the financial obligations referred to in Article 19a have been fulfilled;
- (d) the site has been sealed and the injection facilities have been removed.

1a [...] The operator shall prepare a report documenting that the condition referred to in paragraph 1(a) [...] has been met and submit it to the competent authority for the latter to approve the transfer of responsibility. ⁴¹ This report shall demonstrate, at least:

- (a) the conformity of the actual behaviour of the injected CO₂ with the modelled behaviour,
- (b) the absence of any detectable leakage;
- (c) that the storage site [...] is evolving towards a situation of long-term stability.

⁴⁰ ES : delete "available". In addition, this delegation finds recital 26a(new) on other liabilities confusing and suggests its deletion.

⁴¹ UK suggests amendments (9836/08) aimed at adding clarity on when the permit is withdrawn and deleting the provisions on prior Commission opinion on the draft decision. FR/NL/FI/SE/PL agree with the latter suggestion (in connection to the reservations on Articles 8(2) and 10). Cion: reservation, also on the first part, which may lead to distortion of competition.

The Commission may adopt guidelines on the assessment of elements (a) to (c), highlighting therein any implications for the technical criteria relevant to the determination of the minimum periods referred to in paragraph 1 (b).

- 1b. [...] When the competent authority is satisfied that the conditions referred to in paragraph^o1^o(a) and (b) are met, [...] it shall prepare a draft decision of approval of the transfer of responsibility. The draft decision shall specify the method for determining that the condition referred to in paragraph 1(d) has been met as well as any updated requirements for the sealing of the storage site and for the removal of injection facilities.

If the competent authority considers that the conditions referred to in paragraph 1(a) and (b) are not met, it shall inform the operator of its reasons [...]

2. Member States shall inform the Commission of all draft decisions of approval prepared by the competent authority pursuant to paragraph 1b, including the reports submitted by the operator and any other material taken into consideration by the competent authority when arriving at its conclusion. Within six months of their submission to the Commission, the Commission may issue a non-binding opinion on the draft decisions of approval. If the Commission decides not to issue an opinion, it shall inform the Member State within one month of submission of the draft decision.
3. [...] When the competent authority is satisfied that the conditions referred to in paragraph^o1^o(a) to (d) are met, it shall adopt the final decision and notify that decision to the operator. The competent authority shall also notify the final decision to the Commission, stating the reasons if it deviates from the Commission opinion.
4. [...]

4a [...]

5. After the transfer of responsibility, routine inspections provided for in Article 15(3) shall cease and monitoring may be reduced to a level which allows for identification of leakages or significant irregularities ⁴². If any leakages or significant irregularities are identified, monitoring shall be intensified as required to assess the scale of the problem and the effectiveness of corrective measures.

6. [...] In cases where there has been fault of the operator ⁴³, including cases of deficient data, concealment of relevant information, negligence, wilful deceit or malpractice the competent authority shall recover from the former operator the costs incurred after the transfer of responsibility has taken place. Without prejudice to Article 19a, there shall be no further recovery of costs after the transfer of responsibility.

7. Where a storage site has been closed pursuant to point (c) of Article 17(1), [...] paragraphs 5 and 6 shall apply if and when all available evidence indicates that the stored CO₂ will be completely and permanently contained, and after the site has been sealed and the injection facilities have been removed.

⁴² Cion: reservation. Monitoring is foreseen under the Water Framework Directive and other EU law. Costs for monitoring will not be covered by the operator and the financial security.

⁴³ EL considers that the burden of proof should not be on the competent authority.

Article 19

Financial security until transfer of responsibility

1. Member States shall ensure that proof that adequate provisions can be established, by way of financial security or any other equivalent, on the basis of modalities to be decided by the Member States, is presented by the potential operator as part of the application for a storage permit to ensure that all obligations arising under the permit issued pursuant to this Directive, including closure procedures and post-closure provisions, as well as any obligations arising from inclusion under Directive 2003/87/EC can be met. This financial security shall be valid and effective before commencement of injection.
 - 1a. The financial security shall be periodically adjusted to take account of changes to the ⁴⁴ assessed risk of leakage and the estimated costs.
2. The financial security or any other equivalent referred to in paragraph 1 shall remain valid and effective:
 - (a) after a storage site has been closed pursuant to Article 17 paragraph 1 points (a) or (b), until the responsibility for the storage site is transferred to the competent authority pursuant to Article 18(1) to (4);
 - (b) after the withdrawal of a storage permit pursuant to Article 11(3):
 - (i) until a new storage permit has been issued;
 - (ii) where the site is closed pursuant to Article 17 paragraph 1 point (c), until the transfer of responsibility is deemed to take place pursuant to Article 18(4a).

⁴⁴ IT considers that the criteria to proceed with periodical adjustments should be further clarified.

Article 19a

Financial contribution for actions after transfer of responsibility

1. The operator shall make a financial contribution available to the competent authority before the decision on the transfer of responsibility pursuant to Article 18(3) is taken. This financial contribution shall be used to cover the costs of actions taken by the competent authority after the transfer of responsibility to ensure that the CO₂ is permanently and safely contained. The contribution from the operator shall cover at least the cost of monitoring for a period of 30 years.

2. The Commission may adopt guidelines for the estimation of the costs referred to in paragraph^o1.

CHAPTER 5

Third-party access

Article 20

Access to transport network and storage sites

1. Member States shall take the necessary measures to ensure that potential users are able to obtain access to CO₂ transport networks and to storage sites for the purposes of geological storage of the produced and captured CO₂, in accordance with paragraphs 2 to 4.⁴⁵
2. The access referred to in paragraph 1 shall be provided in a manner determined by the Member State. The Member State shall apply the objectives of fair, open and non-discriminatory access, taking into account:
 - (a) the storage capacity which is or can reasonably be made available within the areas determined under Article 4, and the transport capacity which is or can reasonably be made available;
 - (b) the proportion of its CO₂ reduction obligations pursuant to international legal instruments and to Community legislation that it intends to meet through CO₂ capture and geological storage,
 - (c) the need to refuse access where there is an incompatibility of technical specifications which cannot be reasonably overcome;

⁴⁵ DE/RO: add: "For this purpose, pipelines requiring new permits shall be planned in such a way as to ensure that they are in principle suitable to take in any CO₂ stream of a certain minimum quality. The quality standard shall be established through comitology procedure.". ES: open, favours in general the coverage of transport in this Directive. Cion/DK/UK do not support this suggestion which is premature. Pres points out that this point will be re-considered in the framework of the review (Article 35a).

- (d) the need to respect the duly substantiated reasonable needs of the owner or operator of the storage site or of the CO₂ transport network and the interests of all other users of the storage or the network or relevant processing or handling facilities who may be affected.
3. CO₂ transport network operators and operators of storage sites may refuse access on the basis of lack of capacity. Duly substantiated reasons shall be given for any refusal.
4. Member States shall take the measures necessary to ensure that the operator refusing access on the basis of lack of capacity or a lack of connection makes the necessary enhancements as far as it is economic to do so or when a potential customer is willing to pay for them, provided this would not negatively impact on the environmental security of CO₂ transport and geological storage.

Article 21

Dispute settlement

1. Member States shall ensure that they have in place dispute settlement arrangements, including an authority independent of the parties with access to all relevant information, to enable disputes relating to access to CO₂ transport networks and to storage sites to be settled expeditiously, taking into account the criteria referred to in Article 20(2) and the number of parties which may be involved in negotiating such access.
2. In the event of cross border disputes, the dispute settlement arrangements of the Member State having jurisdiction over the CO₂ transport network or the storage site to which access has been refused shall be applied. Where, in cross border disputes, more than one Member State covers the CO₂ transport network or storage site concerned, the Member States concerned shall consult with a view to ensuring that the provisions of this Directive are applied consistently.⁴⁶

⁴⁶ UK: add here and in Article 23 (at the end): "and in a manner consistent with international agreements.". Cion does not support this addition.

CHAPTER 6

General provisions

Article 22

Competent authority

Member States shall establish or designate the competent authority or authorities responsible for fulfilling the duties established under this Directive. Where more than one competent authority is designated, the work of these authorities undertaken pursuant to this Directive shall be co-ordinated.

Article 23

Transboundary co-operation

In cases of transboundary transport of CO₂, transboundary storage sites or transboundary storage complexes, the competent authorities of the Member States concerned shall meet the requirements of this Directive and of other relevant Community legislation jointly.

Article 24

Register of storage sites

1. The competent authority shall establish and maintain :
 - (a) a register of the storage permits granted ⁴⁷ and
 - (b) a permanent register of all closed storage sites and surrounding storage complexes, including maps and sections of their spatial extent ⁴⁸ and available information relevant for assessing that the stored CO₂ will be completely and permanently contained.

⁴⁷ HU: add "and inspection methods". Cion does not support this suggestion.

⁴⁸ Cion: delete the rest of this sentence.

2. The register referred to in paragraph 1(b) shall be taken into consideration by the competent national authorities in relevant planning procedures and when permitting any activity that could affect or be affected by the geological storage of CO₂ in the closed storage sites.

Article 25

*Reporting by Member States*⁴⁹

1. Every three years the Member States shall submit to the Commission a report on the application of this Directive including the register referred to in Article 24(1)(b). The first report shall be sent to the Commission by 30 June 2011. The report shall be drawn up on the basis of a questionnaire or outline drafted by the Commission in accordance with the procedure laid down in Article 6 of Directive 91/692/EEC. The questionnaire or outline shall be sent to Member States at least six months before the deadline for the submission of the report.
2. The Commission shall organise an exchange of information between the competent authorities of the Member States concerning the application of this Directive.

Article 26

Penalties

The Member States shall lay down the rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive. The Member States shall notify those provisions to the Commission by the date specified in Article 36 at the latest and shall notify it without delay of any subsequent amendment affecting them.

⁴⁹ Cion: reservation on the Presidency text in Articles 25 and 35a, prefers its original proposal.

Article 27
*Amendments of Annexes*⁵⁰

Measures may be adopted to amend the Annexes. Those measures, designed to amend non-essential elements of this Directive, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 28(2).

Article 28
Committee

1. The Commission shall be assisted by the Climate Change Committee.
2. Where reference is made to this paragraph, Article 5a(1) to (4) and Article 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

⁵⁰ Cion: reservation on the Presidency text, maintains its original proposal.

CHAPTER 7

Amendments⁵¹

Article 29

Amendment of Directive 85/337/EEC

Directive 85/337/EEC is amended as follows:

(1) Annex I is amended as follows:

(a) Point 16 is replaced by the following:

"16. Pipelines with a diameter of more than 800 mm and a length of more than 40 km:

- for the transport of gas, oil, chemicals and
- for the transport of carbon dioxide streams for the purposes of geological storage,⁵² including associated booster stations."

(b) The following points 23 and 24 are added:

"23. Storage sites pursuant to Directive XX/XX/EC of the European Parliament and of the Council.(*)

⁵¹ EL notes that several amendments aim at covering capture and transport, while the scope of the proposal only relates to geological storage.

⁵² UK: the reference to associated booster stations is unnecessary, delete the rest of this sentence.

24. Installations for the capture of CO₂ streams for the purposes of geological storage pursuant to Directive XX/XX/EC of the European Parliament and of the Council(*) from installations covered by this Annex, or where the total yearly capture of CO₂ is 1.5 mega tonnes and more.

(*) OJ L..., ..., p. ...".

(2) Annex II is amended as follows:

(a) The following point (j) is added to point 3:

"(j) Installations for the capture of CO₂ streams for the purposes of geological storage pursuant to Directive XX/XX/EC of the European Parliament and of the Council (*) from installations not covered by Annex I of this Directive.

(b) *Point (i) of point 10* is replaced by the following:

"Oil and gas pipeline installations and pipelines for the transport of carbon dioxide streams for the purposes of geological storage (projects not included in Annex I);

(*) OJ L..., ..., p. ...".

Article 30
*Amendment of Directive 96/61/EC **

In Annex I to Directive 96/61/EC, the following point 6.9 is added:

"6.9 Capture of CO₂ streams from installations covered by this Directive for the purposes of geological storage pursuant to Directive XX/XX/EC of the European Parliament and of the Council. (*)

(*) OJ L..., ..., p. ...".

Article 31
Amendment of Directive 2000/60/EC

In point (j) of Article 11(3) of Directive 2000/60/EC, the following indent is inserted after the third indent:

"- injection of carbon dioxide streams for storage purposes into geological formations which for natural reasons are permanently unsuitable for other purposes⁵³, provided that such injection is [...] made in accordance with Directive XX/XX/EC of the European Parliament and of the Council or exempted from the scope of that Directive pursuant to its Article 2(2) (*);

(*) OJ L..., ..., p. ...".

* The reference to the IPPC Directive will be adapted at the moment of the legal/linguistic revision of the text.

⁵³ HU/RO: add "which are considered as isolated formations regarding the migration of CO₂".
Cion does not support this suggestion;

Article 32
Amendment of Directive 2001/80/EC

In Directive 2001/80/EC, the following Article 9a is inserted:

"Article 9a⁵⁴

1. Member States shall ensure that operators of all combustion plants with a rated electrical output of 300 megawatts or more for which the original construction license or, in the absence of such a procedure, the original operating licence is granted after the entry into force of Directive XX/XX/EC of the European Parliament and of the Council.(*), have [...] assessed whether the following conditions are met:
 - = [...] suitable storage sites and suitable transport facilities are available;
 - = [...] it is technically feasible to retrofit for CO₂ capture [...].

2. If the conditions in paragraph 1 are met, the competent authority shall ensure that suitable space on the installation site for the equipment necessary to capture and compress CO₂ is set aside. The competent authority shall determine whether the conditions are met on the basis of the assessment referred to in paragraph 1 and other available information.

(*) OJ L..., ..., p. ...".

⁵⁴ BE: a threshold expressed in terms of CO₂ emissions would be more appropriate than in terms of capacity. PT/BG: open to this proposal.
DE: combined heat and power plants should be excluded.

Article 33
Amendment of Directive 2004/35/EC

In Annex III to Directive 2004/35/EC, the following paragraph 14 is added:

"14. The operation of storage sites pursuant to Directive XX/XX/EC of the European Parliament and of the Council.(*) ⁵⁵;

(*) OJ L..., ..., p. ...".

Article 34
Amendment of Directive 2006/12/EC

Point (a) of Article 2(1) of Directive 2006/12/EC is replaced by the following:

"(a) gaseous effluents emitted into the atmosphere and carbon dioxide captured and transported for the purposes of geological storage and geologically stored in accordance with the provisions of Directive XX/XX/EC of the European Parliament and of the Council (*) or exempted from the scope of that Directive pursuant to its Article 2(2);

(*) OJ L..., ..., p. ...".

⁵⁵ DE: add "until responsibility is transferred to the competent authority.". RO supports this suggestion. Cion: reservation.

Article 35
Amendment of Regulation (EC) No 1013/2006

In Article 1(3) of Regulation (EC) No 1013/2006, the following point (h) is added:

"(h) shipments of CO₂ for the purposes of geological storage in accordance with the provisions of Directive XX/XX/EC of the European Parliament and of the Council.(*);

(*) OJ L..., ..., p. ...".

CHAPTER 8

Final provisions

Article 35a

Review

1. The Commission shall transmit to the European Parliament and to the Council a report on the implementation of this Directive within nine months of receiving the reports referred to in Article 25.
2. In the report that intervenes by⁵⁶ the Commission shall assess, in particular:
 - whether permanent containment of CO₂ in such way as to prevent and reduce as far as possible negative effects on the environment and any resulting risk to human health and the environmental and human safety of CCS [...] has been sufficiently demonstrated;
 - the procedures regarding the Commission's reviews of the draft storage permits (Article 10) and the draft decisions on transfer of responsibility (Article 18);⁵⁷
 - experience with the provisions on CO₂ stream acceptance criteria and procedure referred to in Article 12;
 - experience with the provisions on third-party access referred to in Articles 20 and 21 and with the provisions on transboundary cooperation pursuant to Article 23;
 - the provisions applicable to combustion plants with a rated electrical output of 300 megawatts or more referred to in Article 32⁵⁸;

⁵⁶ Insert date [30 June 2015].

⁵⁷ UK/FI/SE/PL/FR/NL: delete this indent (in connection with their reservation on Articles 10 and 18).

⁵⁸ PL: delete this indent and add the possibility to introduce the obligation of having suitable space on site under certain conditions (in connection to the requested deletion of Article 32).

- prospects for geological storage of CO₂ in third countries;
- further development and update of the criteria referred to in Annex I and Annex II

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and will present a proposal for revision of the Directive if appropriate.

Article 36

Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by [1 year⁶⁰ after publication].⁶¹ They shall forthwith inform the Commission thereof.

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

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

Article 37

Entry into force

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

⁵⁹ IT: add a new indent "development of the CO₂ transport network".

UK: add "the efficiency of procedures for inspection and monitoring".

⁶⁰ UK/LT/IT/FI prefer 18 months. EL/PT/BE/ES/RO/AT/SE/HU/NL/PL/LV/BG/SI/CZ suggest 2 years.

⁶¹ Cion: reservation on the Presidency text (deleting of the correlation table), maintains its original proposal.

Article 38
Addressees

The Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament
The President

For the Council
The President
