OSPAR CONVENTION FOR THE PROTECTION OF THE MARINE ENVIRONMENT OF THE NORTH-EAST ATLANTIC

MEETING OF THE OSPAR COMMISSION

OSTEND: 25-29 JUNE 2007

# OSPAR Decision 2007/2 on the Storage of Carbon Dioxide Streams in Geological Formations

RECALLING the general obligations in Article 2 of the Convention for the Protection of the Marine Environment of the North-East Atlantic;

RECALLING Article 21 of the Convention on procedures for consultation between Contracting Parties;

RECALLING ALSO the adoption of the amendments of Annex II and Annex III to the OSPAR Convention relating to the storage of carbon dioxide streams in geological formations;

EMPHASISING the need for the storage of carbon dioxide streams to be environmentally safe and to ensure net reductions of carbon dioxide emissions:

RECALLING that carbon dioxide capture and storage is not a mandatory obligation for the Contracting Parties to the Convention but an option which the individual Contracting Parties can choose to allow the use of:

RECOGNISING the need for authorisation or regulation by the competent authorities of the Contracting Parties to effectively control the storage of carbon dioxide streams in geological formations;

RECOGNISING that guidance on the storage of carbon dioxide streams in geological formations will contribute to the short-term and long-term protection of the maritime area;

WELCOMING the finalisation of the OSPAR Guidelines for Risk Assessment and Management of Storage of CO<sub>2</sub> Streams in Geological Formations;

BEING AWARE of the fact that scientific knowledge of the environmental risks of storage of carbon dioxide streams in geological formations is in development and that the Guidelines for Risk Assessment and Management of Storage of Carbon Dioxide Streams in Geological Formations, including the Framework for Risk Assessment and Management, will be evaluated and reviewed as this knowledge progresses;

The Contracting Parties to the Convention for the Protection of the Marine Environment of the North-East Atlantic DECIDE:

#### 1. Definitions

1.1 For the purpose of this Decision:

'geological formations'

means geological formations in the sub-soil of the OSPAR maritime area, including sub-seabed geological formations:

'carbon dioxide streams'

means those streams that consist overwhelmingly of carbon dioxide from carbon dioxide capture processes for storage in geological formations in the sub-soil of the OSPAR maritime area. Provided that no wastes or other matter are added for the purpose of disposing of those wastes or other matter, the carbon dioxide streams may contain incidental associated substances derived from the source material and the capture, transport and storage processes used;

'operator'

means companies operating or controlling the operations of installations used for the process of capture and storage of carbon dioxide streams in geological formations.

#### 2. Purpose and scope

2.1 The purpose of the Decision is that by application of the OSPAR Guidelines for Risk Assessment and Management of Storage of CO<sub>2</sub> Streams in Geological Formations, authorities shall ensure that carbon dioxide streams, which are stored in geological formations, are intended to be retained in these formations permanently and will not lead to significant adverse consequences for the marine environment, human health and other legitimate uses of the maritime area.

This Decision shall be applied to any regulatory action, such as the granting of permits or approvals by the competent authorities concerning the storage of carbon dioxide streams in geological formations.

#### 3. Programmes and Measures

- 3.1 The storage in geological formations of carbon dioxide streams from carbon dioxide capture processes shall not be permitted by Contracting Parties without authorisation or regulation by their competent authorities. Any authorisation or regulation shall be in accordance with the OSPAR Guidelines for Risk Assessment and Management of Storage of CO2 Streams in Geological Formations, as updated from time to time. A decision to grant a permit or approval shall only be made if a full risk assessment and management process has been completed to the satisfaction of the competent authority and that the storage will not lead to significant adverse consequences for the marine environment, human health and other legitimate uses of the maritime area.
- 3.2 The provisions of the permit or approval shall ensure the avoidance of significant adverse effects on the marine environment, bearing in mind that the ultimate objective is permanent containment of CO<sub>2</sub> streams in geological formations. Any permit or approval issued shall contain at least:
  - 1. a description of the operation, including injection rates;
  - 2. the planned types, amounts and sources of the CO<sub>2</sub> streams, including incidental associated substances, to be stored in the geological formation;
  - 3. the location of the injection facility;
  - 4. characteristics of the geological formations
  - 5. the methods of transport of the CO<sub>2</sub> stream;
  - 6. a risk management plan that includes:
    - i. monitoring and reporting requirements;
    - ii. mitigation and remediation options including the pre-closure phases; and
    - iii. a requirement for a site closure plan, including a description of post-closure monitoring and mitigation and remediation options; monitoring shall continue until there is confirmation that the probability of any future adverse environmental effects has been reduced to an insignificant level.

- 3.3 Permits or approvals shall be reviewed at regular intervals, taking into account the results of monitoring programmes and their objectives.
- 3.4 Contracting Parties shall also encourage operators to make publicly available plans for the storage of carbon dioxide streams in geological formations and subsequent progress reports on the realization and performance of the various phases of those activities throughout the life cycle of the project.
- 3.5 The competent authorities shall require reports, including post-closure reports on the results of the risk assessment and management process from the operator. The data from these reports shall be made available to the Commission.
- 3.6 Sufficient stakeholder involvement shall be ensured in the process of risk assessment and management as to ensure completeness in the assessment process.

#### 4. Entry into Force

4.1 This Decision enters into force, in respect of storage in accordance with Annex I to the Convention, on 15 January 2008 and, in respect of storage in accordance with Annexes II and III, from the date of entry into force of the amendments of those Annexes.

#### 5. Implementation Report

- 5.1 A Contracting Party that issues a permit for the storage of carbon dioxide streams in geological formations shall notify the Executive Secretary. The Executive Secretary shall send copies of the notification to all Contracting Parties.
- 5.2 Subsequent to the notification of a permit, the Contracting Party shall report to the next meeting of the appropriate OSPAR subsidiary body on the implementation of this Decision using, to the extent possible, the format as set out in Appendix 1. Subsequent implementation reports shall be made annually.

## Format for Reporting on Implementation of OSPAR Decision 2007/2 On the Storage of Carbon Dioxide Streams in Geological Formations

(Note: In accordance with paragraph 5.2 of the Decision, this format should be used to the extent possible in implementation reports. Please state the reasons, if data and information requested under the Implementation Report on Effectiveness cannot be provided.)

I. Implementation Report on Compliance									
Country:									
Reservation applies		yes/no*							
Is measure applicable in your country?		yes/no*							
If not applicable, then state why not (e.g. no relevant installation)									
Means of Implementation:		by legislation	by administrative action	by negotiated agreement					
		yes/no*	yes/no*	yes/no*					
Please	provide information o	on:							
a.	specific measures taken to give effect to this measure;								
b.	any special difficulties encountered, such as practical or legal problems, in the implementation of this measure;								
c.	c. the reasons for not having fully implemented this measure should be spelt out clearly and plans for full implementation should be reported;								
d.	d. if appropriate, progress towards being able to lift the reservation.								
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		•••••							

<sup>\*</sup> Delete whichever is not appropriate.

### **II.** Implementation Report on Effectiveness

Information which is needed to check compliance with the guidelines should be reported by the Contracting Parties with regard to the following topics:

	General basis	Year concerned
Cumulative number of permits issued		
Are guidelines implemented		yes/no <sup>1</sup>
Amount CO <sub>2</sub> stored (tonnes)		
Net amount of CO <sub>2</sub> stored (tonnes)		

Site by Site basis	Year concerned
Chemical composition of the CO <sub>2</sub> stream	
Type of storage formation	
Any observed leakage rates and exposure pathways	
- any expected impacts from this leakage	
Any observed impacts on the marine environment and	
other legitimate uses of the maritime area	
Any (mitigative) measures taken	

List of storage sites (including the coordinates of the injection site(s))					
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<sup>&</sup>lt;sup>1</sup> If "no", indicate the reasons.