

## SCHEDULE 2

Regulation 8(2)

### PROVISIONS TO BE INCLUDED IN A STORAGE PERMIT

#### Acceptance and injection of CO<sub>2</sub>

1.—(1) In order to be injected into the storage site the CO<sub>2</sub> stream must consist overwhelmingly of carbon dioxide, and must in particular satisfy the conditions in sub-paragraph (2).

(2) The stream—

- (a) must contain no waste or other matter added for the purposes of disposal;
- (b) may contain incidental or trace substances (to the extent permitted by any legislation applicable to those substances), but only if the concentrations of all such substances are below the levels that would—
  - (i) adversely affect the integrity of the storage site or the relevant transport infrastructure, or
  - (ii) pose a significant risk to the environment or human health.

(3) In sub-paragraph (2)—

- (a) “incidental substance” means a substance which has become associated with the CO<sub>2</sub> either at its original source or as a result of the process of capture or injection; and
- (b) “trace substance” means a substance which has been added to the CO<sub>2</sub> in order to assist in the monitoring and verifying of its migration after injection.

(4) Before accepting and injecting the stream the operator must ensure that the conditions in sub-paragraphs (1) and (2) can be met, by carrying out—

- (a) an analysis of the composition of the stream, and in particular of any corrosive substances that may be present in it, and
- (b) an assessment of the risk that the stream will fail to comply with those conditions.

(5) The operator must maintain a register, at a place and in a manner approved by the authority, of the quantities and properties of the CO<sub>2</sub> streams that have been delivered to, and injected in, the storage site (including the composition of those streams).

#### Monitoring

2.—(1) The operator must carry out a programme of monitoring of the storage complex and injection facilities, for the purposes specified in sub-paragraph (3).

(2) Such monitoring must include (where possible) the monitoring of the CO<sub>2</sub> plume, and (where appropriate) of the surrounding environment.

(3) The purposes are—

- (a) the comparison of the actual and modelled behaviour of the CO<sub>2</sub> (and the naturally-occurring formation water) in the storage site;
- (b) the detection of any significant irregularities;
- (c) the detection of any migration of CO<sub>2</sub>;
- (d) the detection of any leakage of CO<sub>2</sub>;
- (e) the detection of any significant adverse effects on the surrounding environment, and in particular on—
  - (i) drinking water,

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- (ii) human populations, and
  - (iii) users of the surrounding biosphere;
  - (f) the assessment of the effectiveness of any corrective measures taken;
  - (g) updating the assessment of the safety and integrity, both short- and long-term, of the storage complex (including the assessment of whether the stored CO<sub>2</sub> will be completely and permanently contained).
- (4) The monitoring must be based on the monitoring plan.
- (5) The monitoring plan must be updated in accordance with Annex II to the Directive, and in any event within five years of the approval of the original plan, in order to take account of—
- (a) changes to the assessed risk of leakage;
  - (b) changes to the assessed risks to the environment and human health;
  - (c) new scientific knowledge; and
  - (d) improvements in best available technology.
- (6) The updated plan must be submitted for approval by the authority.
- (7) The authority may—
- (a) approve that plan, or
  - (b) require the operator to make such modifications to it as the authority (after consulting the operator) considers necessary,

and the updated monitoring plan is the plan as so approved or modified.

(8) Sub-paragraphs (5) to (7) apply to the further updating of an updated plan as they apply to the updating of the original plan.

### **Reporting, and notification of leakages and significant irregularities**

**3.—(1)** The operator must send to the authority a report in respect of each reporting period, containing the information specified in sub-paragraph (5).

(2) The report must be sent to the authority no later than four weeks after the end of the relevant reporting period.

(3) Unless the authority determines otherwise under sub-paragraph (4), the reporting periods are the period of one year beginning with the commencement of injection, and each subsequent yearly period.

(4) At any time before the commencement of injection, or during a current reporting period, the authority may notify the operator that (beginning with the next reporting period) reporting periods are to be a period of less than one year that is specified in the notice.

(5) The information is—

- (a) the results of the monitoring carried out under paragraph 2 of this Schedule (including details of the monitoring technology employed);
- (b) the quantities, properties and composition of the CO<sub>2</sub> streams registered by the operator under paragraph 1(5) of this Schedule;
- (c) proof that the financial security required by paragraph 7 of this Schedule has come into effect and remains in force;
- (d) any other information requested by the authority that the authority considers relevant for the purposes of assessing compliance with the conditions of the storage permit or for increasing knowledge of the behaviour of the CO<sub>2</sub> stored at the storage site.

(6) If the operator becomes aware of any leakages or significant irregularities, the operator must immediately notify the authority.

(7) If the operator becomes aware of any leakages, or of any significant irregularities which imply the risk of leakage, the operator must immediately notify the person who is the regulator in relation to the storage site for the purposes of legislation implementing the ETS Directive.

#### **Notification and implementation of changes**

4.—(1) The operator must notify the authority of any change planned in the operation of the storage site, including any change concerning the operator.

(2) A notification under sub-paragraph (1) must specify the target date.

(3) Except where sub-paragraph (4) applies, such a notification must be made at least three months before the target date.

(4) If the change solely concerns the operator, the notification must be made at least four weeks before the target date.

(5) The change may not be implemented before the later of—

(a) the target date, or any date notified under regulation 11(4)(b); and

(b) the date notified by the authority in accordance with regulation 11(1)(b)(ii).

(6) The change may not be implemented if the authority makes a notification to that effect under regulation 11(2)(b).

(7) However, notwithstanding sub-paragraphs (5) and (6), the change may be implemented on or after the later of the dates mentioned in sub-paragraph (5)(a) if the authority has not before then made a notification under regulation 11(1)(b)(ii) or (2)(b).

#### **Review, and modification or revocation of the permit**

5. The permit is to be reviewed, and where necessary modified or (as a last resort) revoked, by the authority in accordance with regulation 11.

#### **Corrective measures**

6.—(1) If the operator becomes aware of any leakages or significant irregularities, the operator must take the necessary corrective measures and measures for the protection of human health.

(2) The measures taken must include those set out in the corrective measures plan (but this is subject to regulation 10(3)).

#### **Financial security**

7.—(1) The operator must maintain financial security that—

(a) is of an amount (“the secured amount”) sufficient to ensure that the obligations specified in sub-paragraph (5) can be met,

(b) is in force before the commencement of injection, and

(c) remains in force until the licence is terminated.

(2) However, if the storage permit is revoked the security must remain in force—

(a) until a new storage permit is granted, or

(b) if the storage site is closed following such revocation, until the licence is terminated.

(3) Following each report made by the operator in accordance with paragraph 3(1) to (5) of this Schedule, the authority is to assess whether the secured amount is appropriate in the light of—

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- (a) the assessed risk of leakage, and
  - (b) the estimated costs of meeting the obligations specified in sub-paragraph (5).
- (4) If, following that assessment, the authority decides that the secured amount is to be adjusted—
- (a) the authority must notify the operator of the new amount that is required, and
  - (b) where the secured amount is less than that new amount, the operator must ensure that it is increased to the new amount within three months of receiving that notification.
- (5) The obligations are—
- (a) all obligations of the operator arising under the storage permit, including those arising in respect of the closure of the storage site and during the period between such closure and the termination of the licence;
  - (b) the obligation to pay the authority’s costs under regulation 10(4)(b) or 12(6); and
  - (c) any obligations of the operator arising in respect of the storage site under legislation implementing the ETS Directive.
- (6) Where the storage permit is revoked—
- (a) the obligations of the operator under this paragraph continue in effect until the licence is terminated, but
  - (b) the assessment by the authority under sub-paragraph (3) is to be made at such intervals as the authority may determine.