



Offshore Petroleum and Greenhouse Gas Storage (Greenhouse Gas Injection and Storage) Regulations 2011¹

Select Legislative Instrument 2011 No. 107

I, QUENTIN BRYCE, Governor-General of the Commonwealth of Australia, acting with the advice of the Federal Executive Council, make the following Regulations under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*.

Dated 16 June 2011

QUENTIN BRYCE
Governor-General

By Her Excellency's Command

MARTIN FERGUSON
Minister for Resources and Energy

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Part 1 Introduction

1.1 Name of Regulations

These Regulations are the *Offshore Petroleum and Greenhouse Gas Storage (Greenhouse Gas Injection and Storage) Regulations 2011*.

1.2 Commencement

These Regulations commence on the day after they are registered.

1.3 Definitions

In these Regulations:

Act means the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*.

leakage from the well bore:

- (a) means any leakage of a greenhouse gas substance from a well that forms part of a project, including:
 - (i) an injection well; or
 - (ii) a monitoring well; or
 - (iii) a pressure management well; and
- (b) does not include any leakage that may occur from wells that do not form part of the project (such as old petroleum wells).

Note Leakage from a well that does not form part of a project is to be regarded as leakage of a stored greenhouse gas substance.

reportable incident means an incident described in regulation 4.1.

risk means the likelihood of a specific, undesired, event occurring within a specific period or in specified circumstances.

Note A risk may be understood as a frequency (the number of specified events occurring within a period) or a probability (the likelihood of a specific event following another event).

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stored greenhouse gas substance:

- (a) means a greenhouse gas substance that:
 - (i) has been injected; and
 - (ii) has left the well bore to enter into the reservoir rock; and
- (b) does not include any greenhouse gas substance that has been part of leakage from the well bore.

1.4 Significant risk of a significant adverse impact — information

- (1) This regulation:
 - (a) is made for subsections 25 (1), 26 (1), 27 (1), 28 (1) and 29 (1) of the Act; and
 - (b) sets out:
 - (i) information required for the purpose of determining the question (the ***risk question***) described in any of those subsections; and
 - (ii) procedures for obtaining or evaluating the information.

Note Subsections 25 (1), 26 (1), 27 (1), 28 (1) and 29 (1) of the Act describe different risk questions. Broadly, a risk question is whether there is a significant risk that an operation that could be carried on under a licence described in the subsection will have a significant adverse impact on other operations described in the subsection.

General information for the responsible Commonwealth Minister

- (2) The person who intends to carry on an operation for which the risk question must be determined (the ***main operation***) must give the responsible Commonwealth Minister all information that is relevant to allow the responsible Commonwealth Minister to determine the risk question.

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- (3) If the responsible Commonwealth Minister is not satisfied that the person has given the responsible Commonwealth Minister all information that is relevant, the responsible Commonwealth Minister may request the person, in writing, to give the responsible Commonwealth Minister the information specified in the request for the purpose of determining the risk question.

Specific information — greenhouse gas injection licences

- (4) For subsection 25 (1) or 26 (1) of the Act, if the title area in which the main operation would be carried on overlaps, in whole or in part, with an area in which an operation is being, or could be, carried on under a greenhouse gas injection licence:
- (a) the responsible Commonwealth Minister may request the injection licensee to give the responsible Commonwealth Minister information in relation to whether there is any potential significant risk that the main operation will have a significant adverse impact on operations under the greenhouse gas injection licence; and
 - (b) the responsible Commonwealth Minister must take any information given by the injection licensee into account when determining the risk question.

Specific information — petroleum production licences

- (5) For subsection 27 (1), 28 (1) or 29 (1) of the Act, if the title area in which the main operation would be carried on overlaps, in whole or in part, with an area in which an operation is being, or could be, carried on under a petroleum production licence:
- (a) the responsible Commonwealth Minister may request the production licensee to give the responsible Commonwealth Minister information in relation to whether there is any potential significant risk that the main operation will have a significant adverse impact on the operation under the petroleum production licence; and
 - (b) the responsible Commonwealth Minister must take any information given by the production licensee into account when determining the risk question.

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Assistance by advisory committee

- (6) The responsible Commonwealth Minister may:
- (a) establish an expert advisory committee under subsection 748 (1) of the Act for the purpose of advising the responsible Commonwealth Minister about the risk question; or
 - (b) refer a risk question to an expert advisory committee that has already been established.

Determining the risk question

- (7) If the responsible Commonwealth Minister is satisfied that he or she has sufficient information to be able to consider the risk question, the responsible Commonwealth Minister must determine whether there is a significant risk of a significant adverse impact:
- (a) as soon as practicable; and
 - (b) in the manner set out in regulation 1.5.

1.5 Significant risk of a significant adverse impact — manner of determining risk

- (1) This regulation:
- (a) is made for subsections 25 (1), 26 (1), 27 (1), 28 (1) and 29 (1) of the Act; and
 - (b) sets out the manner of determining the question (the *risk question*) described in any of those subsections.

Note Subsections 25 (1), 26 (1), 27 (1), 28 (1) and 29 (1) of the Act describe different risk questions. Broadly, a risk question is whether there is a significant risk that an operation that could be carried on under a licence described in the subsection will have a significant adverse impact on other operations described in the subsection.

- (2) The responsible Commonwealth Minister must determine the risk question by:
- (a) determining the probability of the occurrence of a particular event that causes an adverse impact; and

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- (b) estimating the cost that would accrue if the event occurred, including (but not limited to) estimating the following:
 - (i) any increase in the capital costs of the relevant petroleum operations or the relevant greenhouse gas operations;
 - (ii) any increase in the operating costs of the relevant petroleum operations or the relevant greenhouse gas operations;
 - (iii) the cost of any reduction in the rate of recovery of the petroleum or the rate of injection of the greenhouse gas substance;
 - (iv) the cost of any reduction in the quantity of the petroleum that will be able to be recovered or the greenhouse gas substance that will be able to be stored; and
- (c) multiplying the probability by the cost; and
- (d) if it is necessary to determine the probabilities of more than 1 event occurring— applying the appropriate statistical techniques to the results obtained under paragraph (c).

Probability weighted absolute impact

- (3) The economic consequences of an adverse impact (a ***probability weighted absolute impact***) are to be worked out using the formula:

$$\text{even probability} \times \text{event absolute value}$$

Note See subregulation (7).

Probability weighted relative impact

- (4) The economic consequences of an adverse impact relative to the potential economic value of operations that are being, or could be, carried on (a ***probability weighted relative impact***) are to be worked out using the formula:

$$\frac{\text{event probability} \times \text{event absolute value}}{\text{total resource value}}$$

Note See subregulation (7).

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Discounting costs

- (5) All costs for a base year that are used, or worked out, under this regulation are to be expressed in real dollars for the base year.

Note See subregulation (7).

- (6) A cost that relates to a year after the base year (a *nominal cost*) is to be discounted using the formula:

$$\frac{\text{nominal cost}}{(1 + \text{long term bond rate} + 0.05)^{\text{impact year} - \text{base year}}}$$

Note See subregulation (7).

Calculation assumptions

- (7) The calculations in this regulation rely on the assumptions in the table.

Item Assumption

- | | |
|---|--|
| 1 | The cost of an adverse impact is to be worked out on the basis of the cost that would accrue if the event which causes the adverse impact occurs |
| 2 | An impact year is a financial year in which an impact occurs, or would occur |
| 3 | The base year is the financial year in which the calculation is made |
| 4 | The long-term bond rate is the average, expressed as a decimal fraction, of the assessed secondary market yields in respect of 10-year non-rebate Treasury bonds for the latest available 12 months at the time the calculation is made, as published by the Reserve Bank of Australia |

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Item	Assumption
5	<p>The total resource value for the purposes of sections 25 and 26 of the Act is the expected future revenue stream from greenhouse gas injection, taking into account matters including:</p> <ul style="list-style-type: none"> (a) the amount of greenhouse gas projected to be stored by the operation; and (b) the projected injection profile and projected carbon prices; <p>worked out as the present value of future greenhouse gas substances expected to be produced, and discounted if necessary using the formula in subregulation (6)</p>
6	<p>The total resource value for the purposes of sections 27, 28 and 29 of the Act is the expected future revenue stream from a petroleum resource, taking into account:</p> <ul style="list-style-type: none"> (a) the amount of petroleum projected to be recoverable by the operation; and (b) the projected production profile and projected petroleum prices; <p>worked out as the present value of future petroleum expected to be produced, discounted if necessary using the formula in subregulation (6)</p>
7	<p>Prescribed costs for the purposes of subsections 25 (5), 26 (5), 27 (5), 28 (5) and 29 (5) of the Act include any costs incurred by a party in analysing possible impacts or developing or providing information to inform the application of a test</p>

1.6 Significant risk of a significant adverse impact — threshold amounts

- (1) This regulation:
- (a) is made for subsections 25 (6), 26 (6), 27 (6), 28 (6) and 29 (6) of the Act; and
 - (b) sets out the amount that is taken to be the probability-weighted impact cost of an operation for the purposes of those subsections; and
 - (c) sets out the amount that is taken to be the threshold amount for the purposes of those subsections.

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Probability-weighted impact cost

- (2) The probability-weighted impact cost is identified in 2 forms:
- (a) the cost of the economic consequences of an adverse impact, worked out using the formula in subregulation 1.5 (3); and
 - (b) the cost of the economic consequences of an adverse impact relative to the potential economic value of operations that are being, or could be, carried on, worked out using the formula in subregulation 1.5 (4).

Note To be certain of whether a risk is, or is not, to be treated as a significant risk of the occurrence of a significant adverse impact:

- (a) the cost of the economic consequences of an adverse impact is used for the purposes of comparison with the first threshold amount; and
- (b) the cost of the economic consequences of an adverse impact relative to the potential economic value of operations that are being, or could be, carried on is used for the purposes of comparison with the second threshold amount.

If either cost exceeds its relevant threshold, the risk is to be treated as a significant risk of the occurrence of a significant adverse impact.

First threshold amount

- (3) For the financial year starting on 1 July 2010:
- (a) the first threshold amount is \$5 000 000; and
 - (b) the first threshold amount is used for comparison with the cost of the economic consequences of an adverse impact, worked out using the formula in subregulation 1.5 (3).

Second threshold amount

- (4) For the financial year starting on 1 July 2010:
- (a) the second threshold amount is 0.0015; and
 - (b) the second threshold amount is used for comparison with the cost of the economic consequences of an adverse impact relative to the potential economic value of operations that are being, or could be, carried on, worked out using the formula in subregulation 1.5 (4).

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Increase in amounts

- (5) For a base year later than 2010, the first threshold mentioned in paragraph (3) (a) is increased using the formula:

$$\text{amount} \times (1 + \text{GDP deflator})^{\text{base year} - 2010}$$

where:

GDP deflator, for the base year, is the Implicit Price Deflator for Expenditure on Gross Domestic Product first published by the Australian Statistician in respect of the base year.

base year is the base year in the table of assumptions in subregulation 1.5 (7).

1.7 Significant risk of a significant adverse impact — notification that there is significant adverse impact

- (1) This regulation is made for subsections 25 (1), 26 (1), 27 (1), 28 (1) and 29 (1) of the Act.
- (2) If the responsible Commonwealth Minister determines under subregulation 1.4 (7) that there is a significant risk of a significant adverse impact, the responsible Commonwealth Minister must:
- (a) notify, in writing, the person to whose operations the determination relates of the determination and its terms within 15 days after making the determination; and
 - (b) include in the notification the reasons for making the determination; and
 - (c) include in the notification an explanation of the person's responsibilities under the Act.

Note Each of subsections 25 (1), 26 (1), 27 (1), 28 (1) and 29 (1) of the Act refers to a different risk question. Broadly, a risk question is whether there is a significant risk that an operation that could be carried on under a particular licence described in the relevant subsection will have a significant adverse impact on other operations that are described in the subsection.

- (3) The responsible Commonwealth Minister must also:
- (a) notify, in writing, each titleholder that would be affected by the significant risk of the determination and its terms within 15 days after making the determination; and

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- (b) include in the notification the reasons for making the determination.

Note The titleholder will be:

- (a) the holder of a greenhouse gas injection licence (see section 25 or 26 of the Act); or
(b) the holder of a petroleum exploration permit, petroleum retention lease or petroleum production licence (see section 27, 28 or 29 of the Act).

Objection to determination

- (4) The person mentioned in paragraph (2) (a) may object to the determination.
- (5) The person must give the objection to the responsible Commonwealth Minister within 60 days after the person is notified of the determination.
- (6) The responsible Commonwealth Minister must:
- (a) notify each titleholder mentioned in paragraph (3) (a) within 10 days after the responsible Commonwealth Minister receives the objection; and
(b) give each titleholder a notice setting out a proposed timetable for the consideration of the objection.
- (7) The timetable is not binding on the responsible Commonwealth Minister.

Note While the intention is that the responsible Commonwealth Minister will act in accordance with the timetable, circumstances may require the timetable to be changed to ensure that the objection will be considered fairly.

1.8 Significant risk of a significant adverse impact — notification that there is no significant adverse impact

- (1) This regulation is made for subsections 25 (1), 26 (1), 27 (1), 28 (1) and 29 (1) of the Act.

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- (2) If the responsible Commonwealth Minister determines under subregulation 1.4 (7) that there is not a significant risk, as described in the subsections mentioned in subregulation 1.5 (1), the responsible Commonwealth Minister must:
- (a) notify, in writing, the person to whose operations the determination relates of the determination and its terms within 15 days after making the determination; and
 - (b) include in the notification the reasons for making the determination.

Note Each of subsections 25 (1), 26 (1), 27 (1), 28 (1) and 29 (1) of the Act refers to a different risk question. Broadly, a risk question is whether there is a significant risk that an operation that could be carried on under a particular licence described in the relevant subsection will have a significant adverse impact on other operations that are described in the subsection.

- (3) The responsible Commonwealth Minister must also:
- (a) notify each titleholder that would be affected by the significant risk, in writing, of the determination and its terms within 15 days after making the determination; and
 - (b) include in the notification the reasons for making the determination.

Note The titleholder will be:

- (a) the holder of a greenhouse gas injection licence (see section 25 or 26 of the Act); or
- (b) the holder of a petroleum exploration permit, petroleum retention lease or petroleum production licence (see section 27, 28 or 29 of the Act).

Objection to determination

- (4) A titleholder mentioned in paragraph (3) (a) may object to the determination.
- (5) The titleholder must give the objection to the responsible Commonwealth Minister within 60 days after the person is notified of the determination.
- (6) The responsible Commonwealth Minister must:
 - (a) notify the person mentioned in paragraph (2) (a) within 10 days after the responsible Commonwealth Minister receives the objection; and

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(b) give the person a notice setting out a proposed timetable for the consideration of the objection.

(7) The timetable is not binding on the responsible Commonwealth Minister.

Note While the intention is that the responsible Commonwealth Minister will act in accordance with the timetable, circumstances may require the timetable to be changed to ensure that the objection will be considered fairly.

Part 2 Declaration of identified greenhouse gas storage formation

2.1 Application for declaration of identified greenhouse gas storage formation

For paragraph 312 (3) (c) of the Act, Schedule 1 specifies information that must be set out in an application for the declaration of a part of a geological formation as an identified greenhouse gas storage formation.

2.2 Dealing with application for declaration of identified greenhouse gas storage formation

- (1) If the responsible Commonwealth Minister receives an application under section 312 of the Act for the declaration of a part of a geological formation as an identified greenhouse gas storage formation, the responsible Commonwealth Minister must, within 20 days after receiving the application, give the applicant a notice setting out a proposed timetable for the consideration of the application.
- (2) The timetable is not binding on the responsible Commonwealth Minister.

Note While the intention is that the responsible Commonwealth Minister will act in accordance with the timetable, circumstances may require the timetable to be changed to ensure that the application will be considered fairly.
- (3) If the responsible Commonwealth Minister is not satisfied that that part of the geological formation is suitable for the permanent storage of the greenhouse gas substance, the responsible Commonwealth Minister must, in writing:
 - (a) inform the applicant of each matter for which the responsible Commonwealth Minister is not satisfied; and
 - (b) give the applicant an opportunity to amend the application.

Regulation 2.2

- (4) The responsible Commonwealth Minister may act under subregulation (3) more than once if the responsible Commonwealth Minister:
- (a) is still not satisfied that that part of the geological formation is suitable for the permanent storage of the greenhouse gas substance; and
 - (b) believes that the applicant is able to amend the application in a way that will satisfy the responsible Commonwealth Minister that that part of the geological formation is suitable.

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Part 3 Site plans**3.1 Object of Part 3**

The object of this Part is to ensure that a greenhouse gas injection and storage activity is undertaken in a way which ensures that the storage:

- (a) is safe and secure; and
- (b) occurs in accordance with an approved site plan that:
 - (i) describes any current injection and storage operations of the applicant; and
 - (ii) describes any proposed injection and storage operations of the applicant; and
 - (iii) identifies risks associated with the proposed project and demonstrates that these risks have been, or will be, eliminated or reduced to as low as practicable; and
 - (iv) provides for the monitoring of the activity in a way which will identify any new or increased risks in a timely manner; and
 - (v) provides for any necessary risk elimination or control measures to be taken.

3.2 Site plans — obligations

- (1) For subsection 457 (1) of the Act, a greenhouse gas injection licensee must not carry on any operations in relation to an identified greenhouse gas storage formation specified in the licence unless an approved site plan is in force in relation to the formation.

Penalty: For each day that the offence is committed—
100 penalty units.

Regulation 3.3

- (2) For subsection 457 (2) of the Act, if an approved site plan is in force in relation to an identified greenhouse gas storage formation specified in a greenhouse gas injection licence, the licensee must comply with the approved site plan.

Penalty: For each day that the offence is committed—
100 penalty units.

- (3) A draft site plan must be submitted for approval by providing 2 hard copies and 1 electronic copy.
- (4) A draft site plan must be accompanied by a summary of the plan for use in accordance with regulation 3.6.
- (5) If additional information is to be provided with a proposed site plan, the information may be provided:
- (a) as 2 electronic copies; or
 - (b) in another form approved by the responsible Commonwealth Minister.

Examples of additional information

- 1 Details of modelling undertaken, including methodology, types of models and assumptions.
- 2 Any detailed geological, geophysical, geochemical or other geotechnical information.

3.3 Site plans — approval (general)

- (1) For subsection 457 (3) of the Act, the responsible Commonwealth Minister must be satisfied that a site plan complies with the requirements in this regulation before the responsible Commonwealth Minister approves the site plan.
- (2) The site plan must be appropriate for the nature and scale of the injection and storage operations.
- (3) The site plan must demonstrate:
- (a) having regard to available data; and
 - (b) as far as practicable on the basis of current technical knowledge;
- that the site is safe and secure for the permanent storage of the greenhouse gas substance if the operations in relation to the

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identified greenhouse gas storage formation are undertaken in accordance with the site plan.

- (4) The site plan must set out an integrated operations management plan, showing clear chains of command where appropriate.
- (5) The site plan must demonstrate that:
 - (a) the risks associated with the operations have been identified; and
 - (b) new risks or increases in the level of existing risks will be identified as they arise.
- (6) The site plan must demonstrate that the risks associated with the operations will be eliminated or reduced to as low as practicable.
- (7) The site plan must demonstrate that any risk remaining after proposed actions that are designed to remove or eliminate risks will be at an acceptable level.
- (8) The site plan must include an appropriate strategy for the implementation of the plan.
- (9) The site plan must include appropriate arrangements for monitoring, recording and reporting the operation of the plan and compliance with it.
- (10) The site plan must demonstrate that the potential effects on living and non-living resources and other users of the ocean will be as low as practicable, having regard to the existence of any designated agreement mentioned in section 32 of the Act.

Examples of resources and users

- 1 Petroleum.
 - 2 Groundwater.
 - 3 The fishing industry.
- (11) The site plan must demonstrate that there has been an appropriate level of consultation with authorities, persons and organisations for the purpose of preparing the plan.
 - (12) The site plan must comply with any other requirements set out in these Regulations.

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- (13) If the responsible Commonwealth Minister is not satisfied that all of the requirements of the Act and these Regulations which must be complied with before the responsible Commonwealth Minister approves a draft site plan have been complied with, the responsible Commonwealth Minister:
- (a) must, in writing:
 - (i) inform the applicant of each matter for which the responsible Commonwealth Minister is not satisfied; and
 - (ii) give the applicant an opportunity to amend the draft site plan or provide further information; and
 - (b) is not required to act under regulation 3.7 until the applicant has provided sufficient information; and
 - (c) is not required to make a decision on the draft site plan until the applicant has amended the application or provided sufficient information.
- (14) The responsible Commonwealth Minister may act under paragraph (13)(a) more than once if the responsible Commonwealth Minister:
- (a) is still not satisfied that all of the requirements have been complied with; and
 - (b) believes that the applicant is able to:
 - (i) amend the application in a way that will satisfy the responsible Commonwealth Minister that all of the requirements have been complied with; or
 - (ii) provide sufficient information to satisfy the responsible Commonwealth Minister that all of the requirements have been complied with.

3.4 Site plans — approval (Part A of plan)

- (1) For subsection 457 (3) of the Act, this regulation sets out requirements which must be complied with before the responsible Commonwealth Minister approves a site plan.
- (2) The site plan must include a part that:
 - (a) is presented as ‘Part A — Behaviours predicted for the purposes of paragraphs 379 (1) (e) and (f) of the Act’; and

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- (b) sets out predictions relating to the behaviour of each greenhouse gas substance that is, or is to be, stored in the greenhouse gas storage formation.

Note 1 The purpose of Part A is to identify behaviours that will not trigger the serious situation powers set out in paragraphs 379 (1) (e) and (f) of the Act. If the stored greenhouse gas substance does not behave as predicted in Part A, those serious situation powers will be triggered and may be exercised by the responsible Commonwealth Minister.

Note 2 The predictions mentioned in paragraph (2) (b) must be provided for specific times approved by the responsible Commonwealth Minister. It is intended that these predictions will be required at least:

- (a) every 5 years during the injection phase of the project or, if more than 50% of the total quantity of the greenhouse gas substance to be injected is expected to occur in a period less than 5 years after injection commences, at a time when approximately 50% of the planned injection has taken place; and
- (b) the time when injection of the greenhouse gas substance is expected to cease; and
- (c) 5 years after the time when injection of the greenhouse gas substance ceases.
- (3) Each prediction must be described by reference to:
- (a) each applicable migration pathway; and
- (b) each applicable migration rate; and
- (c) any other matter relevant to the accuracy of the prediction.

Example for paragraph (c)

Any geophysical, geochemical or geophysical and geochemical effect on the greenhouse gas storage formation.

- (4) The responsible Commonwealth Minister must be satisfied that each prediction of a time at which behaviour will occur is soundly based.
- (5) The responsible Commonwealth Minister must be satisfied that the predictions are of a kind that, if they are accurate, will result in outcomes that:
- (a) are acceptable to the responsible Commonwealth Minister;
- or

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- (b) can be made acceptable by the use of the control and remediation strategies set out in Part B of the site plan; assuming that the predicted behaviour, and any related behaviour set out in Part A, occur at the times at which they are predicted to occur.

3.5 Site plans — approval (Part B of plan)

- (1) For subsection 457 (3) of the Act, this regulation sets out requirements which must be complied with before the responsible Commonwealth Minister approves a site plan.
- (2) The site plan must include a part that is presented as ‘Part B’.
- (3) Part B must not be inconsistent with the declaration under section 312 of the Act of the identified greenhouse gas storage formation.

Note The declaration includes:

- (a) an estimate of the spatial extent of the storage formation; and
 - (b) fundamental suitability determinants.
- (4) Schedule 2 specifies the information that must be set out in Part B.
 - (5) For subsection 465 (2) of the Act, the responsible Commonwealth Minister may make publicly available any of the following information held by the Commonwealth:
 - (a) the results of the monitoring of any leakages of a greenhouse gas substance stored in a part of a geological formation as a result of transportation or an injection activity;
 - (b) any raw data collected during the monitoring.

3.6 Site plans — summary of draft site plan

- (1) Schedule 3 specifies the information that must be set out in a summary of a draft site plan.

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- (2) Subject to subregulation (3), the responsible Commonwealth Minister must make the summary available on a website maintained by a Department of the Commonwealth within 30 days after receiving it.

Note The website is likely to be maintained by the Department with policy responsibility for resources.

- (3) The responsible Commonwealth Minister is not required to make material in the summary available on the website if the material:
- (a) is commercial in confidence; or
 - (b) discloses intellectual property relating to a proprietary technique or technology.
- (4) The summary must be available on the website for at least 30 days before the responsible Commonwealth Minister makes a decision whether to approve the draft site plan.
- (5) In making a decision whether to approve the draft site plan, the responsible Commonwealth Minister must have regard to any comments received about the summary, to the extent to which they are relevant to:
- (a) the content of the summary; or
 - (b) the requirements which must be complied with before the responsible Commonwealth Minister approves the site plan.

3.7 Site plans — approval

- (1) For subsection 457 (3) of the Act, this regulation applies if the responsible Commonwealth Minister receives an application for the grant of a greenhouse gas injection licence, accompanied by a draft site plan and a summary of the draft site plan.
- (2) The responsible Commonwealth Minister must, within 20 days after receiving the application, give the applicant a notice setting out a proposed timetable for the consideration of the draft site plan.

Regulation 3.8

- (3) The timetable is not binding on the responsible Commonwealth Minister.

Note While the intention is that the responsible Commonwealth Minister will act in accordance with the timetable, circumstances may require the timetable to be changed to ensure that the draft site plan will be considered fairly.

3.8 Site plans — duration

For subsection 457 (4) of the Act, if the responsible Commonwealth Minister approves a draft site plan, the approved site plan:

- (a) comes into force at the time of the approval; and
- (b) remains in force:
 - (i) if, under this Part, the responsible Commonwealth Minister withdraws approval of the approved site plan — until the withdrawal; or
 - (ii) if the responsible Commonwealth Minister issues a site closing certificate — until the issue of the certificate; or
 - (iii) in any other case — indefinitely.

3.9 Site plans — withdrawal of approval

- (1) For subsection 457 (5) of the Act, the responsible Commonwealth Minister may withdraw approval of an approved site plan for any of the following reasons:
- (a) a declaration under section 314 of the Act has been revoked;
 - (b) the greenhouse gas injection licensee is acting otherwise than in accordance with the approved site plan;
 - (c) the greenhouse gas injection licensee has failed to review the approved site plan as required by regulation 3.10;
 - (d) the greenhouse gas injection licensee has failed to submit a variation of an approved site plan as required by regulation 3.11;
 - (e) the greenhouse gas injection licensee has failed to comply with a direction given by the responsible Commonwealth Minister under the Act.

Regulation 3.10

- (2) If the responsible Commonwealth Minister proposes to withdraw approval of an approved site plan, the responsible Commonwealth Minister must:
- (a) notify the greenhouse gas injection licensee, in writing, of the following matters at least 30 days before the proposed withdrawal would take effect:
 - (i) the terms of the proposed withdrawal;
 - (ii) the reasons for the proposed withdrawal; and
 - (b) include with the notification a statement or summary of the right, under section 746 of the Act, of reconsideration or review of the decision.

3.10 Site plans — review of approved site plan

- (1) A greenhouse gas injection licensee commits an offence if the licensee does not review an approved site plan at least once in every period of 5 years after the approval.

Penalty: 50 penalty units.

- (2) A greenhouse gas injection licensee commits an offence if the licensee does not review the part of an approved site plan that deals with site closure 5 years before injection is expected to cease.

Penalty: 50 penalty units.

- (3) The responsible Commonwealth Minister may request a greenhouse gas injection licensee to review an approved site plan if:
- (a) the licensee applies for a variation of the declaration of a part of a geological formation as an identified greenhouse gas storage formation under section 313 of the Act; or
 - (b) the licensee applies for a variation of the greenhouse gas injection licence under section 374 of the Act; or
 - (c) a reportable incident occurs; or
 - (d) the responsible Commonwealth Minister believes that it is necessary to remove any inconsistencies in the approved site plan that may arise as a result of a direction by the responsible Commonwealth Minister under section 376, 380 or 383 of the Act.

Regulation 3.11

- (4) A greenhouse gas injection licensee commits an offence if:
- (a) the responsible Commonwealth Minister requests the licensee to review an approved site plan; and
 - (b) the licensee does not review the approved site plan in accordance with the request.

Penalty: 50 penalty units.

- (5) A review must include the updating of the plume migration modelling, having regard to:
- (a) experience gained about the modelling; and
 - (b) the conduct of the operations (in particular, the amounts and rates of injection); and
 - (c) the observed behaviour of the plume.
- (6) A review must include consideration of whether the plan in item 7.1 or the program in 8.1 of Schedule 2 needs to be revised, having regard to:
- (a) the evolution of industry best practice; and
 - (b) the conduct of the operations.

3.11 Site plans — variation of approved site plan

- (1) For subsection 376 (11) of the Act, if:
- (a) a direction under section 376 of the Act is in force in relation to a greenhouse gas injection licence; and
 - (b) apart from subsection 376 (4) of the Act, the direction would be inconsistent with anything in the approved site plan for the identified greenhouse gas storage formation specified in the licence;
- the licensee must, within 60 days, prepare a draft variation of the approved site plan for the purposes of removing the inconsistency and give the draft variation to the responsible Commonwealth Minister.
- (2) For subsection 380 (13) of the Act, if:
- (a) a direction under section 380 of the Act is in force in relation to a greenhouse gas injection licence; and

Regulation 3.11

- (b) apart from subsection 380 (6) of the Act, the direction would be inconsistent with anything in the approved site plan for the identified greenhouse gas storage formation specified in the licence;

the licensee must, within 60 days, prepare a draft variation of the approved site plan for the purposes of removing the inconsistency and give the draft variation to the responsible Commonwealth Minister.

- (3) For subsection 383 (13) of the Act, if:
- (a) a direction under section 383 of the Act is in force in relation to a greenhouse gas injection licence; and
- (b) apart from subsection 383 (6) of the Act, the direction would be inconsistent with anything in the approved site plan for the identified greenhouse gas storage formation specified in the licence;

the licensee must, within 60 days, prepare a draft variation of the approved site plan for the purposes of removing the inconsistency and give the draft variation to the responsible Commonwealth Minister.

- (4) For subsection 457 (6) of the Act, a greenhouse gas injection licensee commits an offence if:
- (a) a circumstance mentioned in the table occurs; and
- (b) the licensee does not submit a variation of an approved site plan to the responsible Commonwealth Minister as soon as practicable after the circumstance occurs.

Item	Circumstance
1	The technical knowledge that was relied upon to formulate the matters in the site plan, including the knowledge for determining: <ul style="list-style-type: none"> (a) the fundamental suitability determinants; or (b) the plume migration path; or (c) the predictions for the behaviour of the injected greenhouse gas substance; or (d) interactions with the storage formation; or

Regulation 3.11

Item	Circumstance
	(e) any other matter relevant to the secure storage of the greenhouse gas substance; has become outdated to the extent that the site plan no longer provides the best available analysis of those matters
2	The licensee proposes to change the injection and storage operations at the site in a way that will affect: (a) the behaviour of the greenhouse gas substance in the storage formation; or (b) the risks associated with the project
3	The licensee proposes to make a series of changes to the injection and storage operations at the site that, together, will affect: (a) the behaviour of the greenhouse gas substance in the storage formation; or (b) the risks associated with the project
4	The licensee proposes to make a significant change to the management system operating at the site, including a change to the command structure
5	The licensee identifies any inconsistencies in the site plan after the site plan is reviewed under regulation 3.10

Penalty: 50 penalty units.

Part 4 General

Division 1 Incident reporting

4.1 Reportable incidents

An event mentioned in the table is a reportable incident if it has the potential to cause a serious situation within the meaning of the Act.

Item	Event
1	An event described in Part B of the site plan as a threshold event which will be treated as a reportable incident in relation to the behaviour of the greenhouse gas substance in the storage formation, having regard in particular to the predictions in Part A
	<i>Note</i> See item 7.3 of Schedule 2
2	A leakage of stored greenhouse gas substance to the seabed
3	An event which a titleholder expects to lead to a leakage of stored greenhouse gas substance to the seabed
4	A leak from the bore of a well forming part of the greenhouse gas injection project

4.2 Notifying reportable incident

- (1) A titleholder commits an offence if the titleholder:
- becomes aware of the occurrence of a reportable incident; and
 - does not notify the responsible Commonwealth Minister of the reportable incident in accordance with this Division.

Penalty: 100 penalty units.

- (2) It is a defence to a prosecution for an offence against subregulation (1) if the operator has a reasonable excuse.

Note A defendant bears an evidential burden in relation to the question whether he or she has a reasonable excuse (see section 13.3 of the *Criminal Code*).

Regulation 4.3

- (3) An offence against subregulation (1) is an offence of strict liability.

Note For **strict liability**, see section 6.1 of the *Criminal Code*.

- (4) The notification of the reportable incident:

(a) may be oral or in writing; and

(b) must contain:

- (i) all material facts and circumstances concerning the reportable incident that the operator knows or is able, by reasonable search or enquiry, to find out; and
- (ii) any action taken to avoid or mitigate any adverse environment impacts of the reportable incident; and
- (iii) the corrective action that has been taken, or is proposed to be taken, to prevent a similar reportable incident.

Note Regulations 4.4 to 4.6 set out additional requirements for particular reportable events.

4.3 Written report of reportable incident

- (1) A titleholder commits an offence if the titleholder:

(a) becomes aware of the occurrence of a reportable incident; and

(b) does not give a written report of the reportable incident to the responsible Commonwealth Minister in accordance with this Division.

Penalty: 40 penalty units.

- (2) It is a defence to a prosecution for an offence against subregulation (1) if the operator has a reasonable excuse.

Note A defendant bears an evidential burden in relation to the question whether he or she has a reasonable excuse (see section 13.3 of the *Criminal Code*).

- (3) An offence against subregulation (1) is an offence of strict liability.

Note For **strict liability**, see section 6.1 of the *Criminal Code*.

Regulation 4.5

- (4) The report must contain:
- (a) all material facts and circumstances concerning the reportable incident that the operator knows or is able, by reasonable search or enquiry, to find out; and
 - (b) any action taken to avoid or mitigate any adverse environmental impacts of the reportable incident; and
 - (c) the corrective action that has been taken, or is proposed to be taken, to prevent a similar reportable incident.

Note Regulations 4.4 to 4.6 set out additional requirements for particular reportable events.

4.4 Additional requirements — behaviour of greenhouse gas substance in the storage formation

- (1) If a reportable incident mentioned in item 1 of the table in regulation 4.1 occurs, the titleholder must notify the responsible Commonwealth Minister about the incident within 3 days after the titleholder becomes aware that it has occurred.
- (2) The titleholder must give the responsible Commonwealth Minister the report of the incident mentioned in regulation 4.3 as soon as practicable after the titleholder becomes aware that it has occurred and, in any case, within 10 days after the titleholder becomes aware that it has occurred.

4.5 Additional requirements — leakage of stored greenhouse gas substance to the seabed

- (1) If a reportable incident mentioned in item 2 or 3 of the table in regulation 4.1 occurs, the titleholder must notify the responsible Commonwealth Minister about the incident within 2 hours after the titleholder becomes aware that it has occurred.
- (2) The titleholder must give the responsible Commonwealth Minister the report of the incident mentioned in regulation 4.3 as soon as practicable after the titleholder becomes aware that it has occurred and, in any case, within 3 days after the titleholder becomes aware that it has occurred.

Regulation 4.6

- (3) In addition to the information mentioned in regulation 4.3, the report must include the information in the table.

Item	Information
1	An estimate of how much greenhouse gas substance: <ul style="list-style-type: none"> (a) has leaked to the seabed; or (b) is likely to leak to the seabed; and an explanation of how the estimate was made
2	An estimate of how much greenhouse gas substance would leak to the seabed as a result of the leakage or event if action were taken to avoid or mitigate any adverse environment impacts of the leakage or event, and an explanation of how the estimation was made
3	An estimate of how much greenhouse gas substance would leak to the seabed as a result of the leakage or event if no action were taken to avoid or mitigate any adverse environment impacts of the leakage or event, and an explanation of how the estimation was made

4.6 Additional requirements — leakage from the bore of a well

- (1) If a reportable incident mentioned in item 4 of the table in regulation 4.1 occurs, the titleholder must notify the responsible Commonwealth Minister about the incident within 24 hours after the titleholder becomes aware that it has occurred.
- (2) The titleholder must give the responsible Commonwealth Minister the report of the incident mentioned in regulation 4.3 with 5 days after the titleholder becomes aware that it has occurred.

Regulation 4.7

Division 2 Other matters**4.7 Decommissioning of structures, equipment and other items of property**

- (1) For item 15 of the table in subsection 782 (1) of the Act, this regulation provides for the decommissioning of structures, equipment and other items of property.
- (2) An application for the grant of a greenhouse gas injection licence must be accompanied by a plan (a *provisional decommissioning plan*) for:
 - (a) decommissioning structures and equipment; and
 - (b) remediation of the site;after the injection of the greenhouse gas substance ceases.
- (3) The responsible Commonwealth Minister must not approve the application for the grant of the greenhouse gas injection licence unless the responsible Commonwealth Minister is satisfied that the plan mentioned in subregulation (2) is suitable.

Note The suitability of a site plan is ultimately dependent on the circumstances of the decommissioning. The Department with policy responsibility for resources is able to provide guidance to applicants about provisional decommissioning plans.
- (4) If the responsible Commonwealth Minister approves the plan mentioned in subregulation (2):
 - (a) the responsible Commonwealth Minister must notify the applicant, in writing, within 15 days after approving the plan; and
 - (b) advise the applicant of the effect of subregulation (5).
- (5) A greenhouse gas injection licensee commits an offence if the licensee does not review a plan approved under subregulation (3):
 - (a) at least once in every 10 years during the injection phase of the project; and

Regulation 4.8

- (b) at least 5 years before the time when injection of the greenhouse gas substance is expected to cease.

Penalty: 50 penalty units.

- (6) A review must include consideration of whether the plan needs to be varied, having regard to:
- (a) the evolution of industry best practice; and
 - (b) the conduct of the operations; and
 - (c) whether the site plan has been, or is to be, varied to include significant new structures during the injection phase of the project.
- (7) A greenhouse gas injection licensee commits an offence if the licensee does not give the responsible Commonwealth Minister a final plan for:
- (a) decommissioning structures and equipment; and
 - (b) remediation of the site;
- at least 12 months before the time when injection of the greenhouse gas substance is expected to cease.

Penalty: 50 penalty units.

Note The final plan for decommissioning will not cover any monitoring wells that are used for monitoring the behaviour of the greenhouse gas substance in storage formation after the site is closed.

- (8) The responsible Commonwealth Minister must not approve the grant of the site closing certificate unless the responsible Commonwealth Minister is satisfied that the final plan mentioned in subregulation (7) is suitable.

4.8 Discharge of securities

- (1) For section 397 of the Act, this regulation provides for the discharge, in whole or in part, by the responsible Commonwealth Minister of securities in force in relation to site closing certificates.
- (2) For section 456 of the Act, this regulation makes provision in relation to the discharge, in whole or in part, by the responsible Commonwealth Minister of securities in force in relation to:
- (a) greenhouse gas assessment permits; or

Regulation 4.9

- (b) greenhouse gas holding leases; or
 - (c) greenhouse gas injection licences.
- (3) If the responsible Commonwealth Minister is satisfied that each obligation in respect of which the security was lodged has been met, the responsible Commonwealth Minister must discharge the security to the titleholder.
- (4) If the security is used by the responsible Commonwealth Minister to address a situation for which the security was lodged, the responsible Commonwealth Minister must discharge the amount of the security to the titleholder, reduced by the amount that was used by the responsible Commonwealth Minister.

4.9 Estimate of total costs and expenses of carrying out program of operations

For paragraph 391 (5) (a) of the Act, the annual rate at which costs and expenses will increase under the assumption mentioned in that paragraph is the annual rate of the average, expressed as a decimal fraction, of the assessed secondary market yields in respect of 10-year non-rebate Treasury bonds for the latest available 12 months at the time the calculation is made, as published by the Reserve Bank of Australia.

Schedule 1 Information in application for declaration of a part of a storage formation as identified greenhouse gas storage formation

(regulation 2.1)

Part 1 Information about the storage formation

1.1 A description of the geological features of the storage formation, including the effective sealing mechanism.

1.2 A detailed analysis of the geological features, including the effective sealing mechanism.

Note The Department with policy responsibility for resources is likely to expect the applicant to provide detailed modelling of the expected migration of the stored substance in the subsurface. The applicant should consult the Department for advice as to whether the modelling will be necessary.

1.3 (1) Information relating to the integrity of the storage formation, set out in sufficient detail to satisfy the responsible Commonwealth Minister that the applicant has an understanding of the geological environment that is sufficient to allow the applicant to identify all risks.

(2) The information must, as a minimum, identify or refer to the following matters:

- (a) the stratigraphy of the storage formation and its rock types;
- (b) the structure of the storage formation and its rock types;
- (c) any faults in the structure of the storage formation or the seal rocks;
- (d) the porosity and permeability of the storage formation and the seal rocks of the reservoir;
- (e) the reactivity of the rock types of the reservoir and the seal rocks with the greenhouse gas substance to be stored;

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- (f) a geomechanical analysis of the storage formation, including an assessment of:
- (i) the local stress regime; and
 - (ii) fracture gradients; and
 - (iii) fault stability; and
 - (iv) the geomechanical response of the storage formation to injection;
- (g) the fluid parameters of the storage formation, including data about chemical composition, pressure and temperature;
- (h) seismic information about the area, including the history of seismic activity in the area;
- (i) the conduct of any previous exploration activity in the area of the storage formation for petroleum or greenhouse gas substances;
- (j) the existence of abandoned wells, including a map showing the location of each abandoned well, and any information available to the applicant about:
- (i) their location; and
 - (ii) the history of their construction; and
 - (iii) how they were plugged; and
 - (iv) the kind of cement that was used to plug them; and
 - (v) other aspects of the nature of the wells.
- 1.4 A depositional model of the storage formation, relating to the reservoir and the seal rocks.
- 1.5 Any other geological information that may be relevant to the long-term safe and secure storage of the greenhouse gas substance, including information that relates to an area outside the permit area, lease area or licence area.

Note The long-term storage of the greenhouse gas substance should be assessed in the context of the Commonwealth assuming the long-term liability following the closure assurance period under section 400 of the Act.

Schedule 1	Information in application for declaration of a part of a storage formation as identified greenhouse gas storage formation
Part 2	Information about plume migration

Part 2 Information about plume migration

2.1 (1) A description of what the applicant predicts to be each expected migration pathway relating to the storage formation for which the applicant has estimated the probability of occurrence to be more than 10%.

Note See subsection 21 (5) of the Act.

(2) The prediction must be set out and explained in sufficient detail to satisfy the responsible Commonwealth Minister that the prediction is likely to be sound.

(3) The prediction must be based on:

- (a) the particular amount of greenhouse gas injected; and
- (b) the particular greenhouse gas substance; and
- (c) the particular point or points of injection; and
- (d) the particular injection period;

which form the fundamental suitability determinants of the storage formation.

Note See subsection 21 (8) of the Act.

2.2 Details of any modelling undertaken to make the prediction, including details of:

- (a) the methodology used; and
- (b) the types of models used; and
- (c) any assumptions made in the course of the modelling.

2.3 The probability distributions associated with the prediction.

Part 3 Information about engineering enhancements

3.1 (1) A description of any proposed engineering enhancements that will be made in relation to the storage formation.

(2) The description must be set out in sufficient detail to satisfy the responsible Commonwealth Minister that any risks relating to the containment of the greenhouse gas substance in the storage formation are likely to be acceptable, taking into account the proposed engineering enhancements.

- 3.2 Details of the risk assessment analysis used by the applicant to support the proposed engineering enhancements, including, for each risk factor:
- (a) a description of the risks associated with the storage formation; and
 - (b) the possible consequences of each risk factor; and
 - (c) an assessment of the probabilities of occurrence and possible consequences; and
 - (d) an explanation of how the risk has been, or will be eliminated or reduced to as low as practicable.

Part 4 Information about estimated spatial extent of the storage formation

- 4.1 (1) A description of each graticular block in an offshore area which the applicant believes will be occupied by the injected greenhouse gas substance during the period starting when the injection of the greenhouse gas substance commences and ending at the earliest time at which a closing certificate could be issued for the project.
- (2) The description must include the location of each injection point.
- Note* A factor in identifying the appropriate graticular blocks is the location of what the applicant predicts to be each expected migration pathway relating to the storage formation for which the applicant has estimated the probability of occurrence to be more than 10%.
- 4.2 A description of each graticular block in an offshore area:
- (a) to which item 4.1 does not apply; and
 - (b) which is within the permit area; and
 - (c) which is contiguous with a graticular block to which item 4.1 applies; and
 - (d) to which the applicant will require access for the purpose of managing the project.
- 4.3 An explanation of the three-dimensional extent of the effective sealing mechanism within the spatial extent of the storage formation.

Schedule 2 Information in Part B of site plan

(subregulation 3.5 (4))

Part 1 Information about project planning and management

- 1.1 Sufficient information to satisfy the responsible Commonwealth Minister that:
- (a) adequate planning has taken place in relation to the operations; and
 - (b) the greenhouse gas injection licensee has access to sufficient resources to manage the financial and technical aspects of the project; and
 - (c) the greenhouse gas injection licensee intends to deploy those resources to manage the financial and technical aspects of the project.

- 1.2 Details of:
- (a) any joint venture arrangements between the applicants for the greenhouse gas injection licence; and
 - (b) any operator that has been appointed to represent the titleholders in relation to the proposed injection licence; and
 - (c) any commercial agreements or negotiations undertaken with suppliers of greenhouse gas substances for injection.

Note Information marked as commercial-in-confidence will not be made available publicly.

- 1.3 The name of the person who is to be the single point of contact on matters relating to the project, and:
- (a) clear chains of command; and
 - (b) the person's contact details.

Note There may be different chains of command for different elements of the project.

Part 2 Information about overview of operations

- 2.1 A description of the facilities.
- 2.2 A description of the proposed rates of injection.
- 2.3 A description of the injection pressures.
- 2.4 A description of the number and location of injection wells.
- 2.5 The source, composition and other relevant physical and chemical properties of each greenhouse gas substance proposed for storage.
- 2.6 A project schedule.
- 2.7 An explanation of the indicative timing proposed for each major milestone of the operations.
- 2.8 Information about significant works and upgrades that are planned over the life of the operations.

Part 3 Information about storage formation integrity

- 3.1 The information relating to integrity of the storage formation that was included in the application for the declaration of the part of the geological formation as an identified greenhouse gas storage formation.

Note See regulation 2.1.

Part 4 Information about plume migration modelling

- 4.1 The information relating to plume migration that was included in the application for the declaration of the part of the geological formation as an identified greenhouse gas storage formation.

Note See regulation 2.1.

Part 5 Information about predictions relating to the behaviour of each greenhouse gas substance

- 5.1 Sufficient information to satisfy the responsible Commonwealth Minister that the predictions presented in Part A of the site plan are soundly based.
- 5.2 Information demonstrating that the information in item 5.1 has been prepared having regard to all identified behaviours of each greenhouse gas substance that is, or is to be, stored in the greenhouse gas storage formation, whether or not the behaviour has been identified in Part A.
- 5.3 An undertaking to provide revised predictions at times approved by the responsible Commonwealth Minister.

Part 6 Information about risk assessment, analysis and control and remediation strategies

- 6.1 The information relating to:
- (a) risk assessments; and
 - (b) analysis and control relating to the containment of the greenhouse gas substance that is, or is to be, stored in the greenhouse gas storage formation; and
 - (c) remediation strategies relating to the containment of the greenhouse gas substance that is, or is to be, stored in the greenhouse gas storage formation;
- that was included in the application for the declaration of the part of the geological formation as an identified greenhouse gas storage formation.
- Note* See regulation 2.1.
- 6.2 Sufficient information about any identified risk factors that were not included in the application for the declaration of the part of the geological formation as an identified greenhouse gas storage formation to satisfy the responsible Commonwealth Minister that residual risks, after taking into account proposed

risk control and remediation strategies have been taken into account, are acceptable.

Examples

- 1 Leakages from well bores.
- 2 Leakages during transport and injection.
- 3 Any abandoned wells that could adversely affect the storage formation.

- 6.3 Details of the risk assessment analysis used by the applicant to identify the risk factors, including, for each risk factor:
- (a) a description of the risk factor; and
 - (b) the possible consequences of each risk factor; and
 - (c) an assessment of the probabilities of occurrence and possible consequences; and
 - (d) an explanation of how the risk factor has been eliminated or reduced to as low as practicable.
- 6.4 A description of any emergency response plan that may be needed, additional to the emergency response plans included in the safety case or the Environment Plan, including details of any strategies to be adopted and action to be taken under that plan.

Part 7 Information about monitoring behaviour of the stored greenhouse gas substance in the storage formation

- 7.1 A plan for monitoring the behaviour of the greenhouse gas substance in the reservoir that is sufficient to satisfy the responsible Commonwealth Minister that:
- (a) significant events in the reservoir will be detected in a timely fashion to enable any necessary mitigation and remediation activities to be initiated; and
 - (b) the timing and nature of the monitoring will detect any variations from the predictions included in Part A of the site plan.
- 7.2 Details of:
- (a) any substance that is proposed to be used as a tracer for addition to the greenhouse gas substance; and

(b) the concentration of the substance as used with the greenhouse gas substance.

7.3 A description of the threshold events which will be treated as reportable incidents in relation to the behaviour of the greenhouse gas substance in the storage formation, being:

(a) departures from the predicted plume migration path or paths; or

(b) migration rates; or

(c) any other event that may be relevant.

7.4 A suitable plan for monitoring and detecting the leakage of the stored greenhouse gas substance to the seabed.

Part 8 Information about monitoring greenhouse gas substance losses from transport and injection activities

8.1 A suitable program for monitoring and detecting any leakages as a result of transportation or an injection activity.

8.2 An undertaking that a report of the results of monitoring, and any raw data collected during monitoring, will be provided to the responsible Commonwealth Minister as soon as practicable after the completion of the monitoring.

Part 9 Information about monitoring greenhouse gas substance losses from well bore

9.1 A suitable program for monitoring and detecting leakages from any well bore that forms part of the operations.

9.2 An undertaking that a report of the results of monitoring, and any raw data collected during monitoring, will be provided to the responsible Commonwealth Minister as soon as practicable after the completion of the monitoring.

Part 10 Information about monitoring effects on petroleum industry

- 10.1 A description of the potential effect of the operations on the petroleum industry.
- 10.2 A summary of the contents of any designated agreement between the applicant and a petroleum titleholder.

Part 11 Information about effect on other resources

- 11.1 A description of the potential effect of the operations on:
- (a) resources other than petroleum; and
 - (b) the rights and interests of other users of the sea;
- including a description of any effect that could arise from injection and storage operations the applicant intends to undertake in the injection licence area and a suitable plan for reducing the potential effect of the operations to an acceptable level.

Part 12 Information about site closure

- 12.1 A suitable plan for carrying out any work that is required to remediate the storage formation, including:
- (a) plugging of wells; or
 - (b) stabilising the subsurface; or
 - (c) remediating any abandoned wells or other features that could pose a risk of leakage of the greenhouse gas substance after a closing certificate has been issued.
- 12.2 A suitable plan for monitoring activities that are to be undertaken after injection ceases.

Part 13 Information about consultation

- 13.1 A description of:
- (a) any consultations that have taken place with stakeholders, including other users of the sea that might be affected by the proposed operations; and
 - (b) the outcomes of the consultations.
- 13.2 A suitable strategy for consultation with stakeholders to establish mechanisms for interaction with stakeholders over the life of the operations.

Schedule 3 Information in summary of site plan

(subregulation 3.6 (1))

- 1 A short description of:
 - (a) the project; and
 - (b) the size of its footprint; and
 - (c) the schedule for carrying on the project.
- 2 The project's location, including:
 - (a) the latitude and longitude; and
 - (b) the distance of the location from the nearest point of the Australian mainland; and
 - (c) the distance of the location from the nearest Australian town and the nearest Australian capital city.
- 3 A description of the title.
- 4 The name of each current titleholder.
- 5 For the project:
 - (a) its storage capacity; and
 - (b) the proposed injection amount and the period of injection for each greenhouse gas substance to be injected; and
 - (c) the number and location of the proposed injection wells.
- 6 Details of the proposed monitoring program that will verify plume behaviour.

Note

1. All legislative instruments and compilations are registered on the Federal Register of Legislative Instruments kept under the *Legislative Instruments Act 2003*. See <http://www.frli.gov.au>.