



Guideline: Offshore Greenhouse Gas Injection Licences

In relation to the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*

Effective 2 December 2024

This document has been developed as a general guide only. It is subject to, and does not replace or amend the requirements of the [Offshore Petroleum and Greenhouse Gas Storage Act 2006](#) and [associated regulations](#), which should be read in conjunction with the *Guideline: Offshore Greenhouse Gas Injection Licences* (the Guideline).

This guideline is made available by the Australian Government for information only. Before relying on this material, users should carefully evaluate the accuracy, currency, completeness, and relevance of the information and obtain independent, legal, or other professional advice relevant to their particular circumstances.

This document has been prepared by the [Department of Industry, Science and Resources](#) (the Department). It will be reviewed and updated as required.

This guideline includes high level guidance on several policy settings and issues which remain under development as the offshore greenhouse gas injection and storage industry matures in Australia. A review of the offshore carbon capture and storage regime is currently underway. This review may introduce changes to the regulatory regime and issue future publications to guide industry.

This document is available online at www.nopta.gov.au.

Contents

1.	Purpose and legislative framework	3
2.	Overview of a GHG injection licence	5
3.	Application and assessment process	8
	How to apply	8
	Additional considerations for petroleum titleholders	10
	Assessment process	11
	Public interest	12
	Offer, acceptance and grant	14
4.	Draft site plan requirements	15
	Assessment of the applicant’s draft site plan	15
	Approval of the applicant’s draft site plan	20
5.	Securities and insurance	21
	Securities	21
	Insurance	22
6.	GHG injection licence conditions	23
	Variations, suspensions and exemptions to GHG injection licence conditions	24
	Variations of matters specified in the GHG licence	24
7.	Site plan variations reviews and withdrawals of approval	26
	Approved site plan reviews	26
	Approved site plan variations	27
	Withdrawal of approval of site plans	27
8.	Serious situation	29
	Reportable incidents that are serious situations	29
	Dealing with serious situations	30
9.	Discovery and protection of petroleum	31
	Discovery of petroleum	31
	Protection of petroleum in pre-commencement titles	31
10.	Site closure	32
	Site closing certificate	32
	Decommissioning requirements	34
	Site closing directions	35
	Surrender	36
	Cancellation	36
11.	Post closure	37
	Post closure monitoring	37
	Closure assurance period	37
	Trailing liability	37
	Glossary	39
	Attachment 1 – GHG injection licence application process flowchart	
	Attachment 2 – Site closure process flowchart	
	Attachment 3 – Multiple storage formation diagram	

1. Purpose and legislative framework

1.1 There are multiple legislative frameworks to regulate offshore carbon capture and storage (CCS) projects in Commonwealth waters including the:

- Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGGGS Act)
- Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)
- Environment Protection (Sea Dumping) Act 1981 (Sea Dumping Act).

The responsibilities for regulating offshore CCS projects are shared across the Commonwealth Government's Department of Industry Science and Resources (DISR) and the Department of Climate Change, Energy, the Environment and Water (DCCEEW).

An objective of the [OPGGGS Act](#) is to provide an effective regulatory framework for the injection and storage of **GHG substances** in an offshore area. It articulates the framework of rights, entitlements and responsibilities of governments and industry.

Note: a range of terms are shown in **bold** throughout this guideline. These terms are defined in the glossary section of this guideline.

1.2 The purpose of this guideline is to:

- provide information on the grant, administration and management of offshore GHG injection licences under Part 3.4 of the [OPGGGS Act](#), including cross-boundary GHG injection licences; and
- assist applicants and licensees to understand the expectations of the **responsible Commonwealth Minister (RCM)** or the **Cross-boundary Authority (CBA)** (where relevant) when making decisions in relation to a GHG injection licence under the [OPGGGS Act](#) and the [Offshore Petroleum and Greenhouse Gas Storage \(Greenhouse Gas Injection and Storage\) Regulations 2023](#) (GHG Regulations).

Note: All legislative references in this guideline are from the [OPGGGS Act](#) unless otherwise stated. All references to 'GHG injection licence' or 'licence' in this guideline include cross-boundary GHG injection licences unless stated otherwise.

1.3 This guideline includes an overview of the requirements for all relevant applications including:

- the grant of a GHG injection licence (including **draft site plans**)
- variation of matters specified in a GHG injection licence or in a **site plan**
- **site closing certificates**, and
- surrender of GHG injection licences.

1.4 This guideline also provides high-level guidance on legislative provisions for administration matters including:

- **securities** and insurance provisions
- GHG injection licence conditions
- GHG injection licence grant, termination, cancellation and expiry
- **serious situations**, and
- the discovery of petroleum (whether in the GHG injection licence area or in the area of an overlapping pre-commencement petroleum title).

Note: As indicated in the general disclaimer, guidance on these requirements is based on the current requirements of the [OPGGS Act](#) and [GHG Regulations](#). Policy settings for many of these issues remain under development. A review of the offshore carbon capture and storage regime is currently underway, which may introduce changes to both general policy settings and the regulatory framework.

- 1.5 This Guideline should be read in conjunction with information made available by the [National Offshore Petroleum Titles Administrator \(NOPTA\)](#) including:
- [Fact Sheet: Developing a GHG resource - GHG Injection Licence and Site Plan applications](#)
 - [Fact Sheet: Significant Risk of Significant Adverse Impact](#)
 - [Fact Sheet: Risk Assessment in Offshore Greenhouse Gas Injection Licences and Site Plans](#)
 - [Fact Sheet: Monitoring Plans in Offshore Greenhouse Gas Injection Licences and Site Plans](#)
 - [Fact Sheet: Declarations of Experience and Disclosures](#)
 - [Guideline: Applicant Suitability](#)
 - [Fact Sheet: Surrender of Offshore Greenhouse Gas Titles](#)
 - [Fact Sheet: Expiry of Offshore Greenhouse Gas Titles](#)
 - [Fact Sheet: Cancellation of Offshore Greenhouse Gas Titles](#)
 - [Offshore Carbon Capture and Storage Regulatory Approvals: Guidance Note](#)
- 1.6 When all relevant information has been provided by the applicant, [NOPTA](#) in consultation with the [National Offshore Petroleum Safety and Environmental Management Authority \(NOPSEMA\)](#) (as applicable) will assess the application against relevant criteria and provide advice to the RCM (or CBA if relevant) for decision. To inform the assessment and provision of advice to the RCM for decision, [NOPTA](#) will seek advice from [NOPSEMA](#) on matters raised in the draft site plan which relate to well integrity and safety considerations. Before an offshore GHG injection and storage project commences, all relevant approvals will be obtained from [NOPSEMA](#).
- 1.7 Applicants and licensees may be required to obtain regulatory approvals under a range of other Commonwealth and State and Territory regulatory frameworks before their offshore GHG storage project commences. It is the responsibility of applicants and licensees to understand their obligations under other legislation and to seek all necessary approvals.

Note: Applicants and licensees should particularly note their obligations under the [EPBC Act](#) and the [Sea Dumping Act](#). Further information on interactions between the [OPGGS Act](#), the [EPBC Act](#) and the [Sea Dumping Act](#) can be found in the [Offshore Carbon Capture and Storage Regulatory Approvals: Guidance Note](#) available on the [NOPTA website](#). Applicants and licensees should ensure that consistent information is provided across all their regulatory approval applications.

Project proponents are encouraged to engage early with:

- [NOPTA](#) to understand GHG injection licence requirements under the OPGGS Act and regulations,
- [NOPSEMA](#) to understand health and safety, well integrity and environmental management obligations under the OPGGS Act and regulations,
- [Sea Dumping Section](#) in the [Department of Climate Change, Energy, the Environment and Water](#) (DCCEEW) to understand obligations under the [Sea Dumping Act](#), and
- [EPBC Referrals Gateway](#) in [DCCEEW](#) to understand obligations under the [EPBC Act](#).

2. Overview of a GHG injection licence

2.1 A GHG injection licence authorises the licensee to carry out operations for the injection and permanent storage of **GHG substances** into an identified GHG storage formation located within the licence area.

Note: The process for having an identified GHG storage formation declared by the **RCM** is outlined in the [Guideline: Declaration of an identified GHG storage formation](#).

2.2 The **declaration of an identified GHG storage formation (DoSF)** retains its significance over the whole life of the GHG storage project, as injection and storage activities to be carried out under a GHG injection licence need to be consistent with parameters specified in the **DoSF**, such as:

- the **fundamental suitability determinants** per subsections 358(4), 358A(4), 361(9) or 368A(9) of the [OPGGGS Act](#)
- plume migration modelling per section 19(2) of the [GHG Regulations](#)
- integrity and estimation of spatial extent of the storage formation per section 19(3) of the [GHG Regulations](#).

If parameters change, a variation of the DoSF may be required in accordance with section 313 of the [OPGGGS Act](#).

2.3 The grant of a GHG injection licence authorises the licensee to undertake the activities outlined in subsection 357(1) of the [OPGGGS Act](#), subject to:

- subsection 357(2) of the [OPGGGS Act](#)
- any conditions specified in the licence, and
- other requirements of the [OPGGGS Act](#).

This includes the ability to continue to explore the licence area for potential GHG storage formations and injection sites, per paragraphs 357(1)(c) and 357(1)(d) of the [OPGGGS Act](#) respectively.

2.4 GHG injection licence operations are generally considered to be all activities required to inject and store **GHG substances**. This includes preparation for undertaking actual injection and storage such as:

- significant investment in capital
- drilling wells for the purpose of injection and monitoring
- **engineering enhancements** for the purposes of permanent storage (where these enhancements are not permitted to make under an earlier title), and
- construction, or significant modifications of existing facilities for use in GHG injection and storage operations.

Note: The [OPGGGS Act](#) provides limited rights in relation to GHG operations or activities within petroleum production licences (section 161), GHG assessment permits (section 290) and GHG holding leases (section 319). For example, the right to explore for potential GHG storage formations or injection sites and (in the case of a GHG assessment permit or holding lease) the right to inject or store a **GHG substance** on an appraisal basis; and to carry on such operations and execute such works as are necessary for those purposes.

Titleholders should engage early with [NOPTA](#) to determine whether activities they propose to undertake under these titles (e.g. in preparation for the grant of a GHG injection licence or for future injection and permanent storage activities) are authorised by these titles.

- 2.5 An application for a GHG injection licence can be made by a:
- GHG assessment permittee, per sections 361 or 368A of the [OPGGGS Act](#),
 - GHG holding lessee, per sections 361 or 368A of the [OPGGGS Act](#), or
 - petroleum production licensee, per section 369 of the [OPGGGS Act](#).

2.6 If an applicant is not in a position to inject and store a **GHG substance** in the declared storage formation at the time of the application but is likely to be able to do so within 15 years, they may apply for a **GHG holding lease**, per sections 324, 325, 329A, 330, 331 or 335A of the [OPGGGS Act](#).

Note: Further information on application requirements for a **GHG holding lease** will be provided in a future guideline which will be made available on the [NOPTA website](#).

2.7 Additional requirements apply during the assessment and approval process for a GHG injection licence where the applicant is a holder of a **GHG holding lease** granted under section 345 of the [OPGGGS Act](#) or a petroleum production licence. See [paragraphs 3.12 and 3.13 of this Guideline](#) on additional considerations for petroleum titleholders.

2.8 A **GHG substance** is defined under section 7 of the [OPGGGS Act](#). As no other greenhouse gases have currently been prescribed, a **GHG substance** proposed for injection must be composed overwhelmingly of carbon dioxide, whether in a gaseous or liquid state.

- Australia, as a Contracting Party to the [1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matters 1972](#) (the **London Protocol**), is required to ensure carbon dioxide streams proposed for disposal into sub-seabed geological formations consist overwhelmingly of carbon dioxide.

Note: Australia's obligations under the London Protocol are met under the [Sea Dumping Act](#). This includes requirements for developing a National Action List to provide a screening tool to assess suitability for the disposal of CO₂ into subsea bed geological formations; outlines acceptable incidental associated substances and upper limit thresholds; and supports the assessment of potential effects on the marine environment and human health. Further information on the National Action List and requirements for obtaining a sea dumping permit for offshore geological sequestration can be obtained from the [Sea Dumping Section](#) in **DCCEEW**.

2.9 The [OPGGGS Act](#) and [GHG Regulations](#) require a **site plan** to be in force in relation to an identified storage formation specified in a GHG injection licence before any GHG injection licence operations can be undertaken in relation to that formation. See [section 4 of this Guideline](#) for further information on draft **site plan** requirements.

2.10 The grant of a GHG injection licence is also subject to a determination by the **RCM** of whether there is a **Significant Risk of a Significant Adverse Impact (SROSAI)** from an operational activity under the licence on petroleum exploration or recovery operations that are being or could be carried on under an existing or future petroleum title. Where a **SROSAI** is determined to exist, the **RCM** must be satisfied, when issuing a licence offer document that, depending on the type of petroleum title, the activities are:

- in the **public interest** (see [paragraphs 3.20 to 3.24 of this Guideline](#)) and/or
- **covered by designated agreements** with titleholders whose operations are subject to the significant risk (see [Fact Sheet: Significant Risk of Significant Adverse Impact](#)).

2.11 In the interest of ensuring that sufficient funding is available to undertake key activities and meet certain obligations under the [OPGGGS Act](#), the **RCM** may at their discretion require the lodgement of securities such as a bond or guarantee from:

- a GHG injection licence applicant prior to the grant of the licence, per section 364 for a GHG assessment permittee or GHG holding lessee, section 368D for a cross-boundary GHG assessment permittee or cross-boundary GHG holding lessee, or section 372 for a petroleum production licensee; or
- a current GHG injection licensee, whether as an additional security under subsection 454(1) or a new security under subsection 454(2),

See [section 5 of this Guideline](#) for general information on securities.

- 2.12 At their discretion, the **RCM** may also require a GHG injection licensee to maintain insurance against expenses and liabilities arising in connection with carrying out works under the GHG injection licence where this is a condition of the licence, per section 571A of the [OPGGS Act](#). See [section 5 of this Guideline](#) for general information on insurance.
- 2.13 The **RCM** will require a mandatory lodgement of a security by a GHG injection licensee following the issue of a pre-certificate notice before a site closing certificate can be issued per section 391 of the [OPGGS Act](#) to meet obligations associated with the program of operations proposed to be carried out by the Commonwealth for the purposes of monitoring the behaviour of a GHG substance stored in the identified storage formation to be covered by the site closing certificate. See [section 5 of this Guideline](#) for general information on the mandatory security.
- 2.14 Once a GHG injection licence has been granted, licensees are subject to a number of obligations under the [OPGGS Act](#). Applicants and licensees should note in particular:
- GHG injection licence condition requirements (see [section 6 of this Guideline](#))
 - variation and review requirements for injection licences and **site plans** (see [section 7 of this Guideline](#))
 - **reportable incident** obligations (see [section 8 of this Guideline](#)), and
 - specific restrictions if petroleum is found in their title area (see [section 9 of this Guideline](#)).

Note: Applicants and licensees remain responsible for ensuring compliance with all other obligations under the [OPGGS Act](#) and [associated regulations](#). They should engage with [NOPTA](#) and [NOPSEMA](#) as needed if there are uncertainties about these obligations.

Applicants and licensees should also continue to consider the need to obtain independent, legal, or other professional advice relevant to their circumstances.

- 2.15 When GHG injection operations cease, GHG injection licensees are also subject to end of life obligations to obtain a **site closing certificate** in addition to decommissioning and surrender processes that apply to petroleum titleholders. See [section 10 of this Guideline](#).
- 2.16 Following site closure, GHG injection storage formations will continue to be monitored for a period to ensure that the plume and storage formation are behaving as predicted. Following this period, the **RCM** may declare a closure assurance period which would result in liability being assumed by the Commonwealth, as outlined in sections 400 and 401 of the [OPGGS Act](#). Former titleholders will remain subject to the trailing liability provisions. See [section 11 of this Guideline](#).

3. Application and assessment process

3.1 Before commencing the injection and permanent storage of a **GHG substance**, a titleholder must have a GHG injection licence granted by the **RCM** or **CBA** and an approved **site plan**.

Note: See [Attachment 1 – GHG injection licence application process flowchart](#) as an overview of the application and assessment process as described below.

3.2 Applications for a GHG injection licence will be assessed by [NOPTA](#) (in conjunction with [NOPSEMA](#)) consistent with the requirements and objectives of the [OPGGS Act](#) and [associated regulations](#).

3.3 Division 2 of Part 3.4 of the [OPGGS Act](#) sets out the criteria that the **RCM** or **CBA** (where relevant) must consider when deciding whether to grant a GHG injection licence.

Note: Further information on how to apply for a GHG injection licence and the assessment process can be found on the [NOPTA website](#). Applicants should be familiar with the relevant forms and guidance including:

- [NOPTA Forms Guidance – Greenhouse Gas](#)
- [Fact Sheet: Developing a GHG resource - GHG Injection Licence and Site Plan applications](#)
- [Fact Sheet: Significant Risk of Significant Adverse Impact](#)
- [Fact Sheet: Risk Assessment in Offshore Greenhouse Gas Injection Licences and Site Plans](#)
- [Fact Sheet: Monitoring Plans in Offshore Greenhouse Gas Injection Licences and Site Plans](#)
- [Fact Sheet: Declarations of experience and disclosures](#)
- [Guideline: Applicant suitability](#)

How to apply

3.4 A GHG injection licence application can be made in relation to one or more **DoSFs** wholly situated within the area of a:

- GHG assessment permit or GHG holding lease per subsection 361(1) of the [OPGGS Act](#)
- cross-boundary GHG assessment permit or cross-boundary GHG holding lease where there is a compatible cross-boundary law per subsection 368A(1) of the [OPGGS Act](#), or
- production licence per subsection 369(1) of the [OPGGS Act](#).

3.5 Where there are multiple **DoSFs**, a single GHG injection licence can be applied for if the **DoSFs**:

- extend to only one block and a vertical line would not pass through a common point
- extend to one or more blocks and a vertical line would pass through a common point, and
- extend to more than one block and a vertical line would not pass through a common point if at least one of the blocks provided the blocks are adjoining (touching) or have a point in common.

In all other cases separate GHG injection licence applications will be required. The above scenarios are described in [Attachment 3 – Multiple storage formation diagram](#).

3.6 To be validly made, the application must be made in the approved manner including a correctly completed and executed application form and be accompanied by any information or documents required by the application form in accordance with subsections 361(10), 368A(9), 369(9) and section 426 of the [OPGGS Act](#).

- 3.7 An application must provide details of the matters which the applicant seeks to have specified in the licence as mentioned in paragraphs 358(3)(d)-(k) or 358A(3)(d)-(k) being:
- the **GHG substance** to be injected and stored
 - the origins of the **GHG substance**
 - the potential injection site or sites
 - the injection period
 - the total amount of GHG that has been injected (which would have occurred on an appraisal basis) and that is proposed to be injected
 - the rate, or range of rates, of injection of the **GHG substance**, and
 - details of any **engineering enhancements** made in line with the fundamental suitability determinants outlined in the declaration of storage formation.
- 3.8 The information provided on these matters must not be inconsistent with the fundamental suitability determinants of the identified storage formation to which the GHG injection licence application applies, per subsections 358(4) and 358A(4) of the [OPGGGS Act](#). If changes are being made to the fundamental suitability determinants of the identified storage formation, an early discussion with [NOPTA](#) is recommended to clarify whether a variation is required for a DoSF, **site plan** and/ or conditions of the injection licence.
- 3.9 Where relevant to the proposed operations, the application should also provide details of all steps the applicant has undertaken to consider the potential for their operations to have a **SROSAI** on petroleum exploration or recovery operations that are being or could be carried on under certain petroleum titles, by providing:
- detailed assessment of **SROSAI** in relation to their operations
 - detailed consideration of any **SROSAI** assessment made
 - evidence of, and outcomes from consultation undertaken with relevant petroleum titleholders regarding impacts (if any) the operations under the GHG injection licence may have on their operations
 - any **designated agreements** with those petroleum titleholders, including whether they have agreed in writing to the applicant carrying out the GHG injection operations and the terms of any such agreement.

Note: Applicant should review the guidance on these **SROSAI** steps available in the [Fact Sheet: Significant Risk of Significant Adverse Impact](#).

- 3.10 Within 10 days of a GHG injection licence application being submitted, the applicant must also submit a **draft site plan** which addresses all the criteria outlined in the [GHG Regulations](#). See [section 4 of this Guideline](#) for further information.
- 3.11 The applicant may vary the GHG injection licence application at any time prior to either an offer being made or notice of refusal being issued by the **RCM** or **CBA**, per subsections 361(11), 368A(10) or 369(10) of the [OPGGGS Act](#).

Note: Applicants are strongly encouraged to meet with [NOPTA](#) in advance of applying for a GHG injection licence or if they plan to vary a submitted application before a decision is reached by the **RCM** or **CBA**.

Additional considerations for petroleum titleholders

3.12 Where a petroleum retention lessee has been granted a **GHG holding lease** under section 345 of the OPGGs Act, the **GHG holding lease** will become a **tied title** per section 13 of the OPGGs Act. Holders of a **tied title** should note the following requirements when applying for a GHG injection licence:

- the lessee is only entitled to apply for a GHG injection licence if the GHG holding lease is **tied** to a petroleum production licence and the lessee is the registered holder of the petroleum production licence. This means a petroleum production licence derived from the petroleum retention lease must be in force before an application can be made for a GHG injection licence, per paragraphs 361(7)(a) and (b).
- the **GHG substance** to be injected into the storage formation must, for the entire period of injection, come from the **tied** petroleum production licence area, per subsection 358(9).
- a transfer of the **tied** GHG injection licence can only occur if the transfer of the **tied** petroleum retention lease or **tied** petroleum production licence to the same transferees has been approved and registered, per subsections 529(3) and (4).
- if the petroleum title to which the GHG injection licence is **tied** ceases for any reason, the licensee must apply for a **site closing certificate** within 30 days of cessation, or such longer period, not more than 90 days, as the **RCM** allows, per subsections 386(13) and (14).

3.13 A petroleum production licensee may apply for a GHG injection licence directly, once an identified GHG storage formation has been declared within the petroleum production licence area. Holders of a petroleum production licence should note the following when seeking to apply for a GHG injection licence under section 369 of the OPGGs Act:

- where there are multiple registered holders of the petroleum production licence, all the registered holders of the production licence will be required to apply for the licence.
- the **RCM** will be required to refuse the application under section 371 if they are not satisfied that, per section 370 of the OPGGs Act:
 - all the **GHG substance** to be injected will be obtained as a by-product of petroleum recovery operations under the applicant's production licence, per paragraph 370(c)(i), or
 - some or all of the **GHG substance** will be obtained as a by-product from petroleum recovery operations under any petroleum production licence, including licences held by titleholders other than the applicant, granted under the OPGGs Act, and the grant of the licence is in the **public interest**, per paragraph 370(c)(ii).
- the OPGGs Act does not prescribe a particular volume or other measure of a **GHG substance** necessary to fulfil the definition of “some”. The appropriateness of the proposed amount of the **GHG substance** to be sourced as a by-product of petroleum recovery operations under any petroleum production licence may be considered on a case-by-case basis.
- if a GHG injection licence is granted, the licence instrument will specify an overall proportion or amount of the **GHG substance** that will need to be obtained from the source to be consistent with the requirements. The overall proportion or amount will be a cumulative requirement over the duration of the GHG injection licence and there may therefore be one or more periods during the injection phase where none of the **GHG substance** currently available for future injection into the licence site will be derived from petroleum recovery operations.

Assessment process

- 3.14 On receipt of the application, [NOPTA](#) will review the application to ensure it has met the requirements to be considered validly made under:
- section 361 of the [OPGGGS Act](#) where the applicant is a GHG assessment permittee or GHG holding lessee
 - section 368A of the [OPGGGS Act](#) where the applicant is a cross-boundary GHG assessment permittee or cross-boundary GHG holding lessee, or
 - section 369 of the [OPGGGS Act](#) where the applicant is a petroleum production licensee.
- 3.15 [NOPTA](#) may, at any stage during its assessment, seek further information from the applicant by written notice under section 429 (where delegations of the RCM's powers are in place) or 429A of the [OPGGGS Act](#). [NOPTA](#) may also request to meet with the applicant to discuss outstanding issues.
- 3.16 If the further information requested under sections 429 or 429A is not submitted in the specified time, the **RCM** or **CBA** (as relevant) may, by written notice to the applicant, choose not to consider or take any further action in relation to the application, per subsections 429(3) or 429A(3) of the [OPGGGS Act](#).
- 3.17 When all relevant information has been provided by the applicant, [NOPTA](#) (in conjunction with [NOPSEMA](#)) will assess the application against the relevant criteria and advise the **RCM** or **CBA** whether the application is recommended to be approved or refused.
- 3.18 To support the decision of the **RCM** or the **CBA** on whether to make an offer of a GHG injection licence to the applicant, the assessment will address the offer requirements in sections 362, 368B or 370 of the [OPGGGS Act](#) as applicable. This will include:
- whether the application meets the application requirements under sections 361, 368A or 369 of the [OPGGGS Act](#) as applicable
 - the ability of the applicant to commence operations to inject and permanently store a **GHG substance** into at least one identified GHG storage formation within 5 years after the grant of the licence, per paragraphs 362(1)(b) and (2)(b), 368B(1)(b) and (2)(b) and subsection 370(b) of the [OPGGGS Act](#)
 - whether the GHG injection and storage operations would pose a **SROSAI** on petroleum exploration or recovery operations, including consideration of any **designated agreements** with the titleholder of an applicable:
 - **post-commencement** petroleum title, per paragraphs 362(1)(c) and (2)(c), 368B(1)(c) and (2)(c) and subsection 370(d) of the [OPGGGS Act](#)
 - existing **pre-commencement** petroleum title or existing petroleum production licence, per paragraphs 362(1)(d) and (2)(d), 368B(1)(d) and (2)(d), and subsections 370(e) and 370(g) of the [OPGGGS Act](#)
 - future **pre-commencement** petroleum title where a petroleum title is currently in force over any of the blocks, per paragraphs 362(1)(e) and (2)(e), 368B(1)(f) and (2)(f) and subsection 370(f) of the [OPGGGS Act](#)
 - State/Territory title within the above categories in the case of an application for a cross-boundary GHG injection licence under section 368A of the [OPGGGS Act](#).

- whether the GHG injection and storage operations (other than for an application by a petroleum production licensee under section 369 of the [OPGG Act](#)) will not pose a **SROSAI** over any block or blocks included in the application area which:
 - are known to contain petroleum, per subparagraphs 362(1)(f)(i) and (2)(f)(i) or 368B(1)(h)(i) and 368B (2)(h)(i) of the [OPGG Act](#)
 - are also within the licence area of a petroleum production licence or title area of a **pre-commencement** exploration permit or retention lease, per subparagraphs 362(1)(f)(ii) and (2)(f)(ii), or 368B(1)(h)(ii) and (2)(h)(ii) of the [OPGG Act](#), and
 - the recovery of petroleum within passes the commercial viability test; of either being commercially viable to recover or likely to be commercially viable to recover within 15 years to the satisfaction of the **RCM**, per subparagraphs 362(1)(f)(iii) and (2)(f)(ii), or 368B(1)(h)(iii) and (2)(h)(iii) of the [OPGG Act](#).

Note: Applicants and licensees should note that under section 360 of the [OPGG Act](#), the RCM may have grounds to terminate an injection licence if no operations to inject a **GHG substance** into the identified greenhouse gas storage formation have been carried on under the licence at any time during a continuous period of at least 5 years.

Further information on the assessment of **SROSAI** requirements for GHG injection licence applications can be found in the [Fact Sheet: Significant Risk of Significant Adverse Impact](#).

- Whether, under paragraphs 362(1)(g), 362(2)(g), or subsection 370(h) of the [OPGG Act](#), the technical advice and financial resources available to the applicant are sufficient to:
 - carry out the operations and works that will be authorised by the licence; and
 - discharge the obligations that will be imposed under the OPGGS Act and regulations in relation the licence.

Note: Further information on technical advice and financial resource requirements are outlined in the [Guideline: Applicant Suitability](#).

- whether the **draft site plan** satisfies the criteria set out in the [GHG Regulations](#), per paragraphs 362(1)(h), 362(2)(h), 368B(1)(j), 368B(2)(j) and subsection 370(i) of the [OPGG Act](#).

See [section 4](#) of this [Guideline](#) for further information.

3.19 The **RCM** or CBA may request that NOPTA seek additional information from the applicant before deciding whether to offer a GHG injection licence.

Public interest

3.20 In certain circumstances, when deciding whether to offer the grant of a GHG injection licence, the **RCM** is also required to consider whether the grant would be in the **public interest**, including:

- in circumstance where the **RCM** is satisfied that operations that could be carried on under a GHG injection licence (applied for under any of sections 361, 368A or 369 of the [OPGG Act](#)) will have a **SROSAI** on an existing **post-commencement** petroleum exploration permit or retention lease or a future **post-commencement** petroleum production licence over any of the blocks to which an existing **post-commencement** petroleum exploration permit or retention lease relates, in accordance with paragraphs 362(1)(c) and (2)(c), 368B(1)(c) and (2)(c) and subsection 370(d) of the [OPGG Act](#).

- in the case of an application for the grant of a cross-boundary GHG injection licence under section 368A of the [OPGGGS Act](#), where the **RCM** is satisfied that operations could have a **SROSAI** on a State/ Territory petroleum title within the above definition, in accordance with subparagraphs 368B(1)(c)(iv)-(vi) and 368B(2)(c)(iv)-(vi) of the [OPGGGS Act](#).
 - in the case of an application by a petroleum production licensee under section 369 of the [OPGGGS Act](#) in circumstances where some or all of the identified **GHG substance** to be injected into the storage formation will be obtained as a by-product of petroleum of recovery operations carried on under any petroleum production licence, in accordance with paragraph 370(c)(ii) of the [OPGGGS Act](#).
- 3.21 The **RCM** will consider whether the **public interest** grounds for the grant of a GHG injection licence exist on a case-by-case basis.
- 3.22 **Public interest** provisions under the OPGGS Act require that the **RCM**:
- must have regard to any applicable **designated agreement** with the affected petroleum titleholder when the applicant is a GHG assessment permittee or GHG holding lessee, including an applicant for a cross-boundary GHG injection licence, in accordance with subsections 362(3) and 368B(3) of the [OPGGGS Act](#) respectively, and
 - must be satisfied that either:
 - the grant of the GHG injection licence is in the public interest, as per paragraph 370(d)(iv) of the [OPGGGS Act](#) or
 - There is any applicable designated agreement with the affected petroleum titleholder, as per paragraph 370(d)(v) of the [OPGGGS Act](#).
 when the applicant is a production licensee.
- 3.23 The above requirement does not limit the matters which the **RCM** may consider in determining the **public interest**. As part of exercising this discretion, the **RCM** may consider any matters reasonable and relevant to the object and purpose of the relevant provisions of the [OPGGGS Act](#).
- 3.24 To assist with the RCM's consideration of the public interest, the applicant may provide fulsome descriptions of any information about the source of the **GHG substance**, intended uses before permanent injection and storage is undertaken and information to demonstrate the usefulness of the project/ downstream partnership. An applicant may choose to include information that demonstrates the overall impact on GHG emissions including where linked to another project. An applicant may choose to include information such as, but not limited to, impacts on:
- addressing hard-to-abate emissions from industry sectors such as cement, iron, steel, and chemical production
 - the development of sources of hydrogen produced from natural gas supported by Carbon Capture and Storage
 - the commercialisation of Direct Air Capture Technology
 - the commercialisation of Bioenergy with Carbon Capture and Storage
 - the commercialisation of other Carbon Capture, Utilisation and Storage projects.

Offer, acceptance and grant

- 3.25 An offer must or may be given to the applicant in the following circumstances:
- if an application is made under section 361 by the holder of an applicable GHG title and the **RCM** is satisfied of the matters in section 362, the **RCM** must give an offer document to the applicant
 - if an application is made under section 368A by the holder of an applicable cross-boundary title and the **CBA** or **RCM** (as applicable) is satisfied of the matters in section 368B and the state or the Northern Territory has consented to the giving of the offer document where part of the licence area would be in coastal waters, the **CBA** must give an offer document to the applicant
 - if an application is made under section 369 by a petroleum production licensee and the **RCM** is satisfied of the matters in section 370, the **RCM** may give an offer document to the applicant.
- 3.26 The offer document will specify that the **RCM** or **CBA** is prepared to grant the applicant a GHG injection licence over the block or blocks specified in the application on the basis of:
- in the case of an application under sections 361 or 369: the licence will be granted subject to the matters outlined in paragraphs 358(3)(d) to (k) being specified as conditions consistent with the application
 - in the case of an application under section 368A: the licence will be granted subject to the matters outlined in paragraphs 358A(3)(d) to (k) being specified as conditions consistent with the application.
- 3.27 The offer document for a GHG injection licence may also specify the form and amount of a security required to be lodged by the applicant for the licence to be granted, per sections 364, 368D, 372 and subsection 430(4). See [section 5 of this Guideline](#) for general information.
- 3.28 To accept the offer, the applicant must:
- write to the RCM or Titles Administrator (as applicable) requesting the RCM or CBA (as applicable) to grant the GHG injection licence (see sections 431 and 431A). The request must be made within 90 days after the offer document was given to the applicant or, upon written request by the applicant, such longer period, not exceeding 180 days, as allowed by the **RCM** or the Titles Administrator (as applicable).
 - lodge any required security specified in the offer within the same timeframe applicable to accept the offer.
- 3.29 If the applicant makes a request for grant of a GHG injection licence and lodges any required security in the applicable timeframe, the **RCM** or **CBA** must grant the licence to the applicant.

4. Draft site plan requirements

- 4.1 An approved **site plan** must be in force in relation to an identified GHG storage formation specified in a GHG injection licence for any operation to be carried out, and the licensee will be required to comply with the approved site plan in addition to other regulatory requirements and approvals as per regulation 22 of the [GHG Regulations](#).
- 4.2 The criteria for a **draft site plan**, approval processes and administration are primarily addressed in Part 4 and Schedule 2 of the [GHG Regulations](#).
- 4.3 The **draft site plan** must provide sufficient information to satisfy the **RCM** that the proposed operations will ensure safe and secure permanent storage of the **GHG substance**.
- 4.4 The information that must be included in the **draft site plan** is broken into two parts:
- **Part A** per section 19 of the [GHG Regulations](#) sets out the predictions for the behaviour of a **GHG substance** stored in the identified GHG storage formation. Evidence that a **GHG substance** has behaved or is behaving, or that there is a significant risk that it will behave, otherwise than as predicted will constitute a **serious situation** under paragraphs 379(1)(e) and (f) of the [OPGGs Act](#), which may trigger the **RCM's serious situation** powers in section 380, and
 - **Part B** sets out other matters including operational details, risk management and assessments, proposed monitoring activities per section 20 and Schedule 2 of the [GHG Regulations](#).
- 4.5 Information provided in the **draft site plan** must be consistent with the declaration of the identified GHG storage formation, in particular information about the fundamental suitability determinants, the integrity of the storage formation, estimated spatial extent, per sections 19(2)(c), 19(3) and s20(2) of the [GHG Regulations](#).

Assessment of the applicant's draft site plan

Note: This section should be read in conjunction with the [Fact Sheet: Developing a GHG resource - GHG Injection Licence and Site Plan applications](#).

Titleholders with DoSF(s) who intend to apply for a GHG injection licence are encouraged to engage early with [NOPTA](#) to ensure that required information for the application is understood and that **draft site plan** proposals will include adequate information to enable assessment against each criterion for the **site plan**, as outlined in the [GHG Regulations](#).

- 4.6 The assessment of the **draft site plan** will be undertaken by [NOPTA](#), in conjunction with [NOPSEMA](#), concurrently with the assessment of the GHG injection licence application.
- 4.7 [NOPTA](#) offers to review the site plan in preliminary form before the titleholder submits an injection licence application. This is recommended but not required. Please note the following:
- there is no application form or application fee for a preliminary site plan review. It is not provided to the **RCM**
 - [NOPTA](#) will review the preliminary site plan and provide feedback in the form of a 'gap analysis' against the requirements in the [GHG Regulations](#), to identify areas where there is insufficient information and/or analysis for assessment
 - it is expected that this process will take generally 6 to 8 weeks; and
 - the applicant is expected to address [NOPTA's](#) feedback in preparing the final version of the **draft site plan**.

[NOPTA](#) will not provide in-principle approval or an indication of whether NOPTA will recommend to the **RCM** that the site plan be approved or refused during this process. Further questions and clarification may be sought from the applicant once the **draft site plan** application is submitted.

- 4.8 To inform the assessment and provision of advice to the **RCM** for decision, [NOPTA](#) will seek input from [NOPSEMA](#) on matters raised in the **draft site plan** which relate to well integrity, safety and other associated matters within [NOPSEMA](#)'s remit.
- 4.9 The **RCM** or the Titles Administrator may, at any time during the assessment process, request further information from the applicant by written notice relating to any of the criteria set out in sections 18, 19 and 20 of the [GHG Regulations](#). This request must specify per section 26 of the [GHG Regulations](#) that:
- each criterion in relation to which the information is requested, and
 - a reasonable period within which the information is to be provided.

General criteria for the draft site plan

- 4.10 The general criteria for the approval of a **draft site plan** are set out in section 18 of the [GHG Regulations](#).
- 4.11 The general criteria will be considered across [Part A](#) and [Part B](#) and require the applicant to satisfy the **RCM** that the **draft site plan**:
- is appropriate to the nature and scale of the injection and storage operations
 - demonstrates, on the basis of available data and current technical knowledge, that if proposed injection and storage operations are undertaken in accordance with the plan, the formation will be safe and secure for the permanent storage of **GHG substances** (both already stored and proposed to be injected), and
 - that current, new and increased levels of geological risks associated with the operations have or will be identified and that these risks can be eliminated, or reduced to as low as reasonably practicable with any remaining residual risk being to an acceptable level.

Note: Other risks arising from GHG operations will continue to be regulated under other parts of the [OPGGs Act](#) and [associated regulations](#), particularly through the requirements to prepare and have accepted by [NOPSEMA](#):

- an environment plan for environmental management of offshore GHG activities
- a well operations management plan for well activities, and
- a safety case to address occupation health and safety at offshore facilities.

Part A criteria for the draft site plan

- 4.12 The criteria for [Part A](#) are set out in section 19 of the [GHG Regulations](#) and requires that [Part A](#):
- Is presented as “Part A – Behaviours predicted for the purposes of paragraphs 379(1)(e) and (f) of the [OPGGs Act](#)”, per paragraph 19(1)(a) of the [GHG Regulations](#)
 - sets out the predictions for the behaviour, at specified times, of each **GHG substance** in the formation (both already stored and proposed to be injected and stored, per paragraph 19(1)(b) of the [GHG Regulations](#), and
 - includes information relevant to the predictions, per paragraph 19(1)(c) of the [GHG Regulations](#).

4.13 More detailed requirements for the predictions under paragraph 19(1)(b) of the [GHG Regulations](#) are outlined in subsection 19(2) of the [GHG Regulations](#). In meeting these requirements applicants and licensees should note that:

- it is expected that a range of predictions will be provided in the application (e.g. at least P10/P50/P90 probability estimates)
- predictions should be explained with reference to the risk consequence framework that the applicant has used to identify and quantify risks and demonstrate that each has been eliminated or reduced to as low as reasonably practicable. See [section 4.17 of this Guideline](#) for further information
- no set time intervals for predictions are provided as it is expected that the frequency of predictions will need to be determined on a site-specific basis taking into consideration factors such as the:
 - anticipated storage capacity and injection rate into the formation
 - point in the lifecycle of injection the predictions cover
 - sufficiency of proposed prediction intervals for enabling the timely detection of a **serious situation**
 - adequacy of post site closure intervals for allowing the **RCM** to determine that the **GHG substance** is continuing to behave as predicted.

4.14 The relevant information for the predictions under paragraph 19(1)(c) of the [GHG Regulations](#) are outlined by subsection 19(3) of the [GHG Regulations](#). These requirements will assist the **RCM** to consider whether the predictions are soundly based and consistent with the fundamental suitability determinants, estimate of the spatial extent and integrity of the formation outlined in the **DoSF** application and any variations thereof.

Note: Applicants should note that the information provided in [Part A](#) of the **draft site plan** will reflect their best understanding at the time of the application and may need to be varied during the injection phase (both through titleholder triggered variations and the outcomes of **site plan** reviews) due to learnings from carrying out operations authorised by the licence and the evolution of best practice. See [section 7 of this Guideline](#) for further information.

Part B criteria for the draft site plan

4.15 The criteria for [Part B](#) are set out in section 20 of the [GHG Regulations](#) and requires that [Part B](#):

- is presented as "Part B – Other matters", per paragraph 20(1)(a) of the [GHG Regulations](#)
- sets out the information specified in Schedule 2 of the [GHG Regulations](#), per paragraph 20(1)(b) of the [GHG Regulations](#)
- sets out an integrated operations management plan, showing clear accountability and management reporting structure where appropriate, per paragraph 20(1)(c) of the [GHG Regulations](#)
- includes an appropriate strategy for the implementation of the **site plan**, per paragraph 20(1)(d) of the [GHG Regulations](#), and
- includes appropriate arrangements for monitoring, recording and reporting in relation to implementation and compliance with the **site plan**, per paragraph 20(1)(e) of the [GHG Regulations](#).

- 4.16 As part of the information provided in outlining the monitoring, recording and reporting requirements during the injection phase, applicants should include a description of:
- proposed approaches for verifying the accuracy of the measurement or estimation of the quantities of the **GHG substance** injected into the formation
 - standards or codes of practice for metering equipment, and
 - proposed procedures to be used for measuring the **GHG substance** for reporting or compliance monitoring purposes, including measures to verify the composition of the **GHG substance** (particularly at the point of injection) and the rate of injection.
- 4.17 Schedule 2 of the [GHG Regulations](#) provides the more detailed requirements for Part B of the **draft site plan** including:
- operations planning and management information, in sufficient detail to demonstrate that adequate planning has taken place in relation to the proposed operations for the plan, per schedule 2 clause 2 of the [GHG Regulations](#)
 - an overview of proposed operations, per schedule 2 clause 4 of the [GHG Regulations](#), including details on any joint venture arrangements between multiple titleholders, any commercial agreements or negotiations undertaken for the supply of **GHG substances**, details on infrastructure facilities, a schedule for proposed operations and planned significant works and upgrades
 - details should be included (where known) on any impurities that will be contained in a GHG substance to be injected, given this will inform predictions on phase behaviour and for its corrosion potential on proposed transport and facility infrastructure.

Note: Applicants should note that where existing petroleum infrastructure is proposed to be repurposed for GHG injection, the appropriateness of this re-use will need to be considered on a case-by-case basis. Consideration of whether this infrastructure is fit for purpose will be a core aspect of subsequent operational approvals from [NOPSEMA](#) including environment plans, safety cases and well operations management plans. Guidance on issues associated with factors which may limit the ongoing fitness for purpose of existing infrastructure generally can be found in the [NOPSEMA guidance note: Ageing assets and life extension](#). Applicants should engage early with [NOPSEMA](#), including in advance of submitting their draft site plan, to discuss their facility proposals to ensure safety-by-design principles are appropriately being factored into their infrastructure proposals from an early stage of project design.

- information on any **engineering enhancements** outlined in the application for a **DoSF** in line with Schedule 1 of the [GHG Regulations](#) or variations under paragraph 313(3)(a) of the [OPGGS Act](#), in accordance with schedule 2 clause 4 of the [GHG Regulations](#)
- information about potential risks to (and proposed strategies for the elimination or reduction to as low as reasonably practicable) the containment of **GHG substances** that have been identified but which were not part of the **DoSF**, per schedule 2 clause 5 of the [GHG Regulations](#)
 - this information is critical to demonstrate that the proposed approach to the design and implementation of the project will manage risks to as low as reasonably practicable when compared to other development options. Applicants should show that they have undertaken preliminary major accident events and safety integrity level assessments to underpin this evaluation.

Note: Applicants should note that information included in the **draft site plan** to meet these risk assessment and strategy requirements will be a critical underpinning to future operational approvals including safety cases. Further information on risk assessment considerations can be found in the [NOPSEMA guidance note: risk assessments](#).

Again, applicants should engage early with [NOPSEMA](#), including in advance of submitting their **draft site plan**, to discuss risk aspects of their project to ensure safety-by-design principles are appropriately being factored into their infrastructure proposals from an early stage of project design.

- information on the proposed monitoring of the behaviour of the stored **GHG substances** in the subsurface including a monitoring plan, proposed substances for facilitating monitoring (if any), identification of potential **reportable incidents** and a plan for detecting and monitoring leakage of the stored **GHG substance** into the seabed, per schedule 2 clause 6 of the [GHG Regulations](#)
 - these plans are important to ensure that any necessary mitigation and remediation activities can be initiated as soon as practicable and so that the RCM can be advised and timely action can be taken to address the unexpected behaviour and/or remedy the leakage.
- a program for detecting and monitoring leakage of GHG substances that could occur during transport to the proposed injection formation and at the point of injection into the formation, per schedule 2 clause 7 of the [GHG Regulations](#)
- a program for detecting and monitoring leakages from the well bore, per schedule 2 clause 8 of the [GHG Regulations](#)
- a plan for certain aspects of remediation work including the plugging and closing of wells, stabilising the subsurface of the formation and remediating any feature that could pose a risk of leakage from a GHG storage formation after a site closing certificate has been issued in relation to the formation, per schedule 2 subclause 9(1) of the [GHG Regulations](#)
 - the information on remediation included in a **draft site plan** at the time of initial application for an injection licence will be very preliminary in nature but should demonstrate that decommissioning has been planned for from the outset of a project and is being factored into the design and concept selection and the early stages of project development. Information included in this part of the site plan should be revised during **site plan** reviews as the project matures and should be used to inform the content to be eventually included in decommissioning environment plans submitted to [NOPSEMA](#) for acceptance under the [Offshore Petroleum Greenhouse Gas Storage \(Environment\) Regulations 2023](#) (Environment Regulations).
- a plan for monitoring the behaviour of **GHG substance** stored in the formation after ceasing injection operations into the formation, per schedule 2 subclause 9(2) of the [GHG Regulations](#).

Note: Applicants should note that the information provided in Part B of the **draft site plan** will reflect their best understanding at the time of the application and may need to be varied during the injection phase (both through titleholder triggered variations and the outcomes of **site plan** reviews) due to learnings from carrying out operations authorised by the licence and the evolution of best practice. See [section 7 of this Guideline](#) for further information.

Approval of the applicant's draft site plan

- 4.18 The **RCM** must be satisfied that the draft site plan meets the criteria specified in the regulations before deciding to offer the grant of an injection licence.
- 4.19 If the **RCM** is not satisfied that the **draft site plan** meets the criteria in sections 18, 19 and 20 of the [GHG Regulations](#) but the **RCM** believes that the applicant could vary the draft site plan or provide additional information to the **RCM's** satisfaction, the **RCM** must by written notice given to the applicant:
- inform the applicant they are not satisfied and the reasons for this, and
 - give the applicant an opportunity to vary the **draft site plan** or provide the additional information, per section 27 of the [GHG Regulations](#).
- 4.20 Any decision to refuse approval of the **draft site plan** must include the reasons for the refusal in accordance with subsection 28(3) of the [GHG Regulations](#).
- 4.21 The **RCM** may approve the **draft site plan** if reasonably satisfied that the plan meets the criteria set out in sections 17, 18, 19 and 20 of the [GHG Regulations](#), per subsection 25(2) of the [GHG Regulations](#), and may have regard to any matters they consider relevant in making the decision to approve the **draft site plan** in accordance with subsection 25(3) of the [GHG Regulations](#).

5. Securities and insurance

5.1 The [OPGGS Act](#) provides for the **RCM** (or **CBA** where applicable) to require a GHG injection licensee to lodge a security or hold insurance in a number of circumstances.

Securities

5.2 A GHG injection licence applicant or licensee may be required, at the discretion of the **RCM** to lodge a security to ensure adequate funding is available for applicants and licensees to comply with and fulfil applicable statutory obligations under the [OPGGS Act](#) per subsection 454(3), including compliance with:

- Licence conditions
- directions given to the licensee by the **RCM**, [NOPSEMA](#) or [NOPTA](#)
- provisions of chapters 3, 5, 5A, 6 and 8.1 of the [OPGGS Act](#), including for example to ensure adequate funding is available to meet future decommissioning and site rehabilitation requirements, particularly in the event there may be an unplanned site closure, and
- provisions of the regulations, which could include ensuring adequate funding is available to meet ongoing commitments to undertake monitoring during the injection phase as specified in the site plan.

5.3 The offer document for a GHG injection licence may specify the form and amount of a security required to be lodged by the applicant for the licence to be granted, in accordance with sections 364, 368D, 372 and subsection 430(4) of the [OPGGS Act](#). An application will lapse under section 433 if the applicant fails to lodge the security with the **RCM** or **CBA** within the period for accepting an offer under section 431 or 431A. Where so specified, if the applicant fails to lodge the security with the **RCM/ CBA** within the period allowed for accepting the offer under sections 431 or 431A the application will lapse and the injection licence will not be granted in accordance with section 433 of the [OPGGS Act](#).

5.4 The **RCM** or **CBA** will consider whether a security is required for a GHG injection licence on a case-by-case basis. Consideration may be given to matters including the financial and technical capability of the applicant/ titleholder and the proposed injection and storage activities.

5.5 Subsections 358(11) or 358A(9) of the [OPGGS Act](#), as applicable, provides that all GHG injection licences are subject to the condition that, if the **RCM** requires the holder of the licence to provide a security or an additional security for compliance with the applicable statutory obligations under section 454 of the [OPGGS Act](#), the licensee will comply with the requirement.

5.6 Where one or more securities are already in force in relation to a GHG injection licence, an additional security may be required to be lodged under subsection 454(1)-(1A) of the [OPGGS Act](#) where the **RCM** is satisfied that the total amount of any existing securities is insufficient in respect of compliance with the applicable statutory obligations.

5.7 Where no security is in force in relation to a GHG injection licence (e.g. because a security was not imposed at the time of grant of the licence) subsection 454(2)-(2A) of the [OPGGS Act](#) empowers the **RCM** (either on their own accord or under advice from [NOPSEMA](#)) to require a new security to be lodged if satisfied that it would be appropriate in respect of compliance with the applicable statutory obligations.

- 5.8 If a security is in place covering obligations under the pre-existing GHG assessment permit or GHG holding lease, then this will continue to apply to any unmet obligations over any remaining assessment permit or holding lease blocks.
- 5.9 A security will remain in force even though the title may be transferred after the security is lodged, section 455 of the [OPGGGS Act](#). The interest of the transferor of the title in the security is transferred to the transferee.

Note: A separate, mandatory security will be required to be lodged by the titleholder in line with section 392 of the [OPGGGS Act](#) in order to be issued a **site closing certificate**. See [section 10 of this Guideline](#).

Insurance

- 5.10 In addition to securities, the conditions of a GHG injection licence may include that the registered titleholder maintain, as directed by the **RCM** from time to time, insurance against expenses or liabilities arising in connection with the carrying out of work or the doing of any other thing under the licence, section 571A of the [OPGGGS Act](#).
- 5.11 The requirement can include requiring GHG injection licensees to hold insurance against expenses of complying with directions from [NOPSEMA](#) or the **RCM** relating to clean up or other remediation of the effects of the escape of a **GHG substance** to the surface.

6. GHG injection licence conditions

- 6.1 When a GHG injection licence is granted, sections 358 and 358A of the [OPGGS Act](#) outline the general conditions that apply to GHG injection licences and cross-boundary GHG injection licences respectively.
- 6.2 The **RCM** or **CBA** may grant a GHG injection licence subject to whatever conditions the **RCM** or **CBA** thinks appropriate, in accordance with subsections 358(1) or 358A(1) of the [OPGGS Act](#), respectively. These conditions, if any, must be specified in the GHG injection licence.
- 6.3 Key elements of the GHG injection licence application will become conditions of a GHG injection licence once granted. The conditions of a GHG injection licence require that the licensee must not inject or permanently store a GHG substance into an identified GHG storage formation that is wholly situated in the licence area, unless complying with the following:
- the identified GHG storage formation is specified in the licence
 - the **GHG substance** is of a kind that is specified in the licence
 - the **GHG substance** complies with such requirements (if any) as are specified in the licence
 - the origin or origins of the **GHG substance** are as specified in the licence
 - the **GHG substance** is injected at a potential GHG injection site or sites specified in the licence
 - the **GHG substance** is injected during a period specified in the licence
 - the sum of:
 - the total amount of GHG that has already been injected into the identified GHG formation, and
 - the total amount of **GHG substance** that is proposed to be injected into the identified GHG storage formationdoes not exceed the amount specified in the licence
 - the rate, or range of rates, of injection of the **GHG substance** is as specified in the licence, and
 - in a case where the fundamental suitability determinants of the identified GHG storage formation include specific **engineering enhancements**, that those **engineering enhancements** have been made.

Note: The above matters must always remain consistent with the fundamental suitability determinants. GHG Injection licensees should meet early with [NOPTA](#) if they anticipate needing to seek a variation of these conditions on their licence.

- 6.4 If two or more identified GHG storage formations are specified in a GHG injection licence, different matters may be specified as conditions in the licence for these different formations, subsections 358(6) or 358A(6) of the [OPGGS Act](#).
- 6.5 The **RCM** or **CBA** may, by written notice, vary a licence by imposing one or more additional conditions, in accordance with subsections 358(14) or 358A(13) of the [OPGGS Act](#), respectively. These conditions, if any, must be specified in the GHG injection licence.

Variations, suspensions and exemptions to GHG injection licence conditions

- 6.6 Under section 436 and 439A of the [OPGGS Act](#), the conditions of a GHG injection licence may be the subject of a variation, suspension or exemption in circumstances where:
- The licensee applies in writing to the RCM or CBA as applicable seeking a variation of any of the conditions to which the licence is subject or an exemption from compliance with any of the conditions to which the license is subject
 - If the RCM, CBA or NOPTA as applicable gives a direction or consent under Chapter 3, Chapter 6 or part 8.1 of the Act
 - If the license is partly surrendered
 - If a determination on the amalgamation of blocks is made under section 462.
- 6.7 Subsection 436(2A) of the [OPGGS Act](#) provides that the RCM may take into account an applicant's technical advice and financial resources and any other matters the RCM considers relevant when making a decision under subsection 436(2) of the [OPGGS Act](#) to vary, suspend or exempt the titleholder from permit conditions. Equivalent provisions apply for the CBA under subsection 439(3A) and 439(3) of the [OPGGS Act](#).

Variations of matters specified in the GHG licence

- 6.8 A titleholder may apply to vary certain matters specified in a GHG injection licence per section 374 or 374A of the [OPGGS Act](#). The application must set out the proposed variation and specify the reasons for the proposed variation. The matters that may be varied can include but are not limited to:
- the identified GHG storage formation
 - the type of **GHG substance** specified
 - requirements (if any) specified for the **GHG substance**
 - the origin or origins of the **GHG substance**
 - the injection site or sites of the **GHG substance**
 - the period during which the **GHG substance** is specified to be injected
 - the sum of the **GHG substance** that:
 - has already been injected into the identified GHG storage formation
 - is proposed to be injected into the identified GHG storage formation
 - the rate, or range of rates, of injection of the **GHG substance**
 - particular **engineering enhancements** which have been made as forming part of the fundamental suitability determinants.
- 6.9 In deciding whether to approve the variation, the **RCM** must consider, in accordance with subsection 374(3B) or 374A(3B) of the [OPGGS Act](#), whether the technical advice and financial resources available to the applicant are sufficient to:
- carry out the operations and works that will be authorised by the licence as varied

- discharge the obligations that will be imposed by the OPGGS Act or associated legislative instruments in relation to the licence as varied.

6.10 The **RCM** may also have regard to any other matters they consider relevant when determining whether to approve the variation, per subsection 374(3A) or 374A(3A) of the [OPGGS Act](#).

Note: Applicants and licensees should note that a variation to a GHG injection licence may result in changes which will also require corresponding variations to a range of their other approvals under the OPGGS Act.

Prior to seeking a variation to a licence, licensees should discuss with:

- [NOPTA](#) whether variations may be required to both their DoSF and their approved site plan, and
- [NOPSEMA](#) whether revisions may be required to their accepted environment plans, well operations management plans or safety cases.

6.11 Where a titleholder has applied for a variation of the GHG injection licence or the **DoSF**, the **RCM** may request that the applicant undertake a review of their approved **site plan**, per section 37 of the [GHG Regulations](#).

6.12 In circumstances, where a variation is made to a DoSF under section 313 of the [OPGGS Act](#) and would result in a declaration being inconsistent with any of the matter specified in the licence as mentioned in any of paragraphs 358(3)(c) to (k) or 358A(3)(c) to (k) of the [OPGGS Act](#), the RCM must by written notice to the licensee vary the matter specified in the licence to remove the inconsistency.

7. Site plan variations reviews and withdrawals of approval

- 7.1 Once a GHG injection licence has been granted, elements of the approved **site plan** and its timing may need to change:
- between the initial approval and commencement of operations if the scope of the activities to be covered by the **site plan** changes, or
 - as experience and geological knowledge is gained during injection operations.

Titleholders should engage early with [NOPTA](#) when parameters are likely to change to determine whether a site plan variation is required.

Approved site plan reviews

- 7.2 Section 36 of the [GHG Regulations](#) provides that an approved **site plan** must be reviewed by the GHG injection licensee at least once every 5 years during which the **site plan** is in force.
- 7.3 A review of an approved **site plan** must consider the following matters per section 38 of the [GHG Regulations](#):
- in relation to the predictions set out in [Part A of the site plan](#): experience gained about the predictions, carrying out of operations authorised by the licence and monitoring of migration pathways
 - in relation to the following plans and programs set out in [Part B](#) of the site plan:
 - the plan for monitoring behaviour of **GHG substance(s)** stored in the formation
 - the program for detecting and monitoring leakages of **GHG substance(s)** during transport and injection
 - the program for detecting and monitoring leakages of **GHG substance(s)** from well bores
 - the plan for carrying out remediation work.
- 7.4 If following a review, the licensee identifies any necessary changes to the contents of the **site plan**, the licensee must submit a variation of the **site plan** to the **RCM** in accordance with subsection 36(3) of the [GHG Regulations](#).

Note: Licensees are strongly encouraged to engage early with [NOPTA](#) if inconsistencies are being identified during the review process.

- 7.5 The **RCM** may request a review of an approved **site plan** if:
- the licensee applies for a variation of the declaration of an identified GHG storage formation, per section 313 of the [OPGGGS Act](#)
 - the licensee applies for a variation of the GHG injection licence, per sections 374, 374A, 375 and 436 of the [OPGGGS Act](#)
 - a **reportable incident** occurs, per section 37 of the [GHG Regulations](#)
 - the **RCM** believes it necessary to remove any inconsistencies in the approved **site plan** that may arise as a result of a direction by the **RCM**, per sections 376, 380, 381 or 383 of the [OPGGGS Act](#).

Note: GHG injection licence applicants and licensees should note that a variation to the **site plan** may also result in a requirement to vary the matters specified in the licence instrument and/ or the underpinning declaration of an identified storage formation. Licensees should discuss these considerations with [NOPTA](#).

Approved site plan variations

- 7.6 In addition to variations to address inconsistencies identified in a review of an approved **site plan**, a licensee may be required to apply to vary the **site plan**:
- To remove an inconsistency with a direction issued under the Act in relation to a serious situation or the protection of petroleum, per section 39 of the [GHG Regulations](#)
 - As a result of the occurrence of certain circumstances as outlined in section 40 of the [GHG Regulations](#)
- 7.7 The RCM may have regard to any matters they consider relevant in deciding whether to approve the draft variation under section of the of the [GHG Regulations](#) and may approve a draft variation if they are reasonably satisfied that:
- In the case of an application under section 39 of the [GHG Regulations](#) that the proposed variation would remove the inconsistency with the direction
 - In the case of an application under section 40 of the [GHG Regulations](#) that the proposed variation would address the circumstance which has occurred, and
 - In the case of a variation under section 40 of the [GHG Regulations](#) that would changes the way operations are conducted and will affect the predictions on the behaviour of the GHG substance stored or the risks associated with those predictions, that the change would remain consistent with the criteria for approval of the site plan outlined in sections 17 to 20 of the of the [GHG Regulations](#).

Withdrawal of approval of site plans

- 7.8 A failure to:
- comply with the site plan
 - review a **site plan**, or
 - to submit a draft variation of the **site plan** to the **RCM** when required
- are grounds for the **RCM** to withdraw approval of the approved **site plan** under section 32 of the [GHG Regulations](#).
- 7.9 A GHG injection licensee commits an offence under subsection 22(1) of the [GHG Regulations](#) if they carry on operations in relation to an identified GHG storage formation and do not have a **site plan** in force in relation to the formation.
- 7.10 Accordingly, a withdrawal of approval for the **site plan** means that GHG injection and storage operations would need to permanently cease, which will in turn trigger a mandatory application for a **site closing certificate** under subsection 386(4) of the [OPGGGS Act](#).
- 7.11 Before withdrawing approval of a **site plan**, in accordance with section 33 of the [GHG Regulations](#) the **RCM** must:
- give the licensee at least 30 days' written notice of their intention to withdraw approval (and may optionally give this notice to other persons)

- specify a day by which submissions may be made in response to the notice, outlining any matters for the **RCM** to take into account in deciding whether to withdraw the approval
- take into account any action taken by the licensee to remove the grounds for withdrawal or to prevent the recurrence of that ground, and
- take into account any matter submitted within the timeframe specified in the notice.

7.12 If the **RCM** decides to withdraw approval of the **site plan**, they must give the licensee written notice of this decision, specifying the reasons for it and the day on which it takes effect, in accordance with section 34 of the [GHG Regulations](#).

7.13 To mitigate the risks of inadvertent non-compliance, licensees should ensure they submit the outcomes of a **site plan** review to the **RCM** even if no changes are proposed, as evidence that the review has occurred.

Note: Licensees are strongly encouraged to discuss any concerns about compliance with **site plan** requirements (including variation and review obligations) with [NOPTA](#) in the first instance.

8. Serious situation

8.1 Section 379 of the [OPGGGS Act](#) defines when a **serious situation** exists in relation to an identified GHG storage formation specified in a GHG injection licence. A **serious situation** exists if:

- a **GHG substance** injected into the identified storage formation has leaked or is leaking, per paragraph 379(1)(a) or there is a significant risk that this will occur, per paragraph 379(1)(b) of the [OPGGGS Act](#)
- a leak has occurred, or is occurring during injection operations, per paragraph 379(1)(c) or there is a significant risk that this will occur per paragraph 379(1)(d) of the [OPGGGS Act](#)
- the **GHG substance** has not or is not behaving as predicted in the **site plan**, per paragraph 379(1)(e) or there is a significant risk that this will occur per paragraph 379(1)(f) of the [OPGGGS Act](#)
- the injection or storage of a **GHG substance** into the identified storage formation has had, or is having, a significant adverse impact on the geological integrity of the whole or part of a geological formation or geological structure, per paragraph 379(1)(g) or there is a significant risk that this will occur per paragraph 379(1)(h) of the [OPGGGS Act](#).
- the identified storage formation is not suitable for the permanent storage of the **GHG substance** in line with the parameters of the licence per paragraph 379(1)(i) of the [OPGGGS Act](#).

Reportable incidents that are serious situations

8.2 Part 5 of the [GHG Regulations](#) impose obligations on GHG injection licensees to notify and provide reports to the **RCM** about events, known as **reportable incidents**, in relation to identified GHG storage formations.

Note: Licensees should note that **reportable incident** obligations under the [GHG Regulations](#) are in addition to reportable incident obligations under both the [Environment Regulations](#) and [Offshore Petroleum and Greenhouse Gas Storage \(Resource Management and Administration\) Regulations 2011](#) (RMA Regulations).

Further information on these other forms of reportable incident is available from [NOPSEMA](#).

8.3 Section 49 of the [GHG Regulations](#) provides that each of the following is a reportable incident:

- events which have been identified in **Part B** of the **site plan** as events in the behaviour of a **GHG substance** (include due to departures from predicted migration pathways or rates of a **GHG substance**) that are causing or have the potential to cause a **serious situation**.
- a current or previous leakage of a **GHG substance** to the seabed which causes a **serious situation**, per paragraph 379(1)(a) of the [OPGGGS Act](#)
- the risk of a leakage to the seabed which causes a **serious situation**, per paragraph 379(1)(b) of the [OPGGGS Act](#), or
- a leakage of a **GHG substance** from the bore of a well that forms parts of the licence operations that causes or has the potential to cause a **serious situation** to exist in relation to the formation.

8.4 A GHG injection licensee must comply with requirements to give notification (either verbally or in writing) and subsequently to report to the **RCM** on reportable incidents in line with the timeframes outlined in subsection 49(2) of the [GHG Regulations](#).

- 8.5 The information which must be included in a notification to the **RCM** is set out in subsection 51(1) of the [GHG Regulations](#). A record (where notice was given orally) or copy of this notification must be given to the responsible State/ Territory Minister within 3 days of the notification.
- 8.6 The information which must be included in a report to the **RCM** is set out in subsection 52(1) of the [GHG Regulations](#). A copy of this report must be given to the responsible State/ Territory Minister within 3 days of the notification.

Dealing with serious situations

- 8.7 Section 380 of the [OPGGGS Act](#) provides the **RCM** with wide powers to deal with **serious situations**. If the **RCM** is satisfied that a **serious situation** exists, the **RCM** may direct the GHG injection licensee to (among other things):
- take all reasonable steps to ensure that operations are carried on in a manner specified in the direction
 - cease or suspend injection
 - undertake such activities as are specified in the direction for the purpose of eliminating, mitigating, managing, or remediating the **serious situation**.
- 8.8 If a direction given by the **RCM** under section 380 of the [OPGGGS Act](#) is inconsistent with anything in the approved **site plan**, the licensee must, within 60 days, prepare a variation of the **site plan** for the purposes of removing the inconsistency and give the variation to the **RCM**.

9. Discovery and protection of petroleum

Discovery of petroleum

- 9.1 The rights conferred to a GHG injection licensee do not include exploration for petroleum. However, if there is an incidental discovery of petroleum as a consequence of exploration for GHG storage formations or injection operations, per paragraph 357(1)(i) of the [OPGGS Act](#), the following applies.
- 9.2 If a GHG injection licensee discovers petroleum in the licence area, they must notify the **RCM** of this discovery before the end of the 30-day period beginning on the day of the completion of the well that resulted in the discovery, per section 452 of the [OPGGS Act](#).
- 9.3 Following the notification of the discovery, the GHG injection licensee must also within 60 days of completion of the well that led to the discovery provide a report to the RCM which outlines:
- the location of the petroleum discovery in the title area, and
 - if any production tests have been conducted on the discovered petroleum, the results of the tests in accordance with section 2.06 of the [RMA Regulations](#).
- 9.4 If petroleum is discovered as an incidental consequence of injection activities or exploration activities authorised by the GHG injection licence, the GHG injection licensee may seek the written consent of the **RCM** to recover petroleum for the sole purpose of appraising this discovery, in accordance with paragraph 357(1)(i) of the [OPGGS Act](#).
- 9.5 Any petroleum recovered for the purpose of appraising a discovery does not become the property of the licensee per subsection 357(3) of the [OPGGS Act](#).

Protection of petroleum in pre-commencement titles

- 9.6 In circumstances where petroleum is discovered in a **pre-commencement** petroleum title area (i.e. a petroleum exploration permit granted before 22 November 2008 and any petroleum title renewed or derived from that title) after the grant of an overlapping GHG injection licence and the licensees have not entered into a **designated agreement**, section 383 of the [OPGGS Act](#) provides the **RCM** with broad powers to protect that petroleum resource.
- 9.7 Section 29 of the [OPGGS Act](#) provides for the **RCM** to assess whether operations under the GHG injection licence could result in a **SROSAI** on operations to recover the petroleum or the commercial viability of the recovery of petroleum in a **pre-commencement** petroleum title.
- 9.8 Depending on the outcome of this assessment the **RCM** may determine that the **SROSAI** can be eliminated or that action can be undertaken to mitigate, manage or remediate the risk. In either circumstance the **RCM** must by written notice either:
- issue a direction to the GHG injection licensee requiring the licensee to do things or take action for the purposes of eliminating, mitigating, managing, or remediating the risk as applicable per paragraph 383(1)(g) and 383(3)(g) of the [OPGGS Act](#)
 - suspend any or all of the rights conferred by the GHG injection licence for a specified period or indefinitely per paragraph 383(1)(h) and 383(3)(h) of the [OPGGS Act](#), or
 - cancel the GHG injection licence per paragraph 383(1)(i) and 383(3)(i) of the [OPGGS Act](#).
- 9.9 Evaluating the commercial viability of petroleum recovery, may include consideration of prevailing market conditions and consideration of whether there is a meaningful technological and commercial pathway to develop the petroleum resource in the future.

10. Site closure

10.1 GHG injection licensees are subject to specific site closure processes, in addition to the surrender and decommissioning requirements set out in part 3.10 and section 572 of the [OPGGGS Act](#). The below information outlines these processes.

Note: See [Attachment 2 – Site closure process flowchart](#) as an overview of the site closure process as described below.

Site closing certificate

10.2 A GHG injection licensee may at any time apply to the **RCM** for a **site closing certificate** in relation to a particular identified GHG storage formation specified in the licence, per subsection 386(1) of the [OPGGGS Act](#).

10.3 However, there are certain circumstances in which it will be mandatory for a licensee to apply for a **site closing certificate** within the application period as specified below. These are where:

- the licensee has permanently ceased operations for the injection of a **GHG substance** into the storage formation (application period is the period of 30 days after the day on which the cessation occurred) per subsections 386(4)-(6) of the [OPGGGS Act](#)
- there is a ground for cancellation of the licence and the **RCM** has given written notice to the licensee directing them to apply for a site closing certification pursuant to section 386(9) of the [OPGGGS Act](#) (application period as directed by the **RCM** but must not be less than 30 days), per subsections 386(9)-(10) of the [OPGGGS Act](#)
- the GHG injection licence is **tied** to a petroleum production licence which ceases to be in force because of being surrendered, cancelled, terminated, or wholly revoked (application period is the period of 30 days after the day on which the petroleum title ceasing to be in force) per subsections 386(13)-(15) of the [OPGGGS Act](#).

10.4 The **RCM** may, upon written application by the licensee, allow a longer period (up to 90 days) to lodge an application for a **site closing certificate** after cessation of injection operations or the cessation of the **tied** title per subsections 386(6) and 386(15) of the [OPGGGS Act](#).

10.5 The application for a **site closing certificate** must include a site closing report, per subsection 386(2) of the [OPGGGS Act](#), setting out:

- the modelling conducted by the applicant of the behaviour of the **GHG substance** injected into the storage formation and relevant information and analysis, including methodology; types of models; injection and monitoring data and assumptions
- the applicant's assessment of the expected migration pathway(s) and short- and long-term consequences of the migration
- the applicant's suggestions for a post-site closing monitoring program of the stored **GHG substance** to be undertaken by the Commonwealth, after the issue of a **site closing certificate**, to monitor the behaviour of the stored **GHG substance**
- details of monitoring, measurement, and verification of the behaviour of the injected GHG in the storage formation to enable the **RCM** to achieve sufficient confidence about the likely fate of the injected **GHG substance** after the site closure.

- 10.6 At any time before a decision on the application is made by the **RCM**, the applicant may vary the application by written notice, made in the approved manner published on NOPTA's website. The application may set out any additional matters that the applicant wishes to be considered, per section 387 of the [OPGGGS Act](#).
- 10.7 Variation applications may also be made at the request of the **RCM**, per paragraph 387(4)(b) of the [OPGGGS Act](#), which may for instance be requested in circumstances where the **RCM** considers modifications are necessary to the proposed post-site closing monitoring program and the details of the behaviour of the injected **GHG substance**.
- 10.8 The **RCM** must decide on the application for a **site closing certificate** within five years of the lodgement of the application. In deciding whether to grant a **site closing certificate**, the **RCM** must have regard under section 388 of the [OPGGGS Act](#) to:
- whether the **GHG substance** injected into the storage formation is behaving as predicted in Part A of the **site plan**.
 - any **SROSAI** that the stored **GHG substance** will have on navigation, fishing, lawful pipeline construction and operations, or enjoyment of native title rights (meaning native title rights under the [Native Title Act 1993](#))
 - whether there is a significant risk that the stored **GHG substance** will have a significant adverse impact on:
 - the conservation or exploitation of natural resources
 - the geotechnical integrity of the whole or part of a geological formation or structure
 - the environment, human health, or safety
 - whether relevant statutory requirements have been complied with.
- 10.9 While the **RCM** must consider whether there is a risk of a **SROSAI** to the groups identified in subsection 388(2) of the [OPGGGS Act](#), the **RCM** may also consider whether this risk applies for other sectors such as titleholders under the [Offshore Electricity Infrastructure Act 2021](#), per subsection 388(3) of the [OPGGGS Act](#).
- 10.10 If not satisfied that all relevant statutory requirements have been complied with, the **RCM** may consider if there are otherwise sufficient grounds to warrant the issue of the **site closing certificate**.
- 10.11 Once the **RCM** has considered all relevant matters, the **RCM** may give the injection licensee a pre-certificate notice telling the licensee that the **RCM** is prepared to issue a **site closing certificate** in relation to the formation. The pre-certificate notice must specify:
- a program of operations that the Commonwealth proposes to carry out for the purpose of monitoring the behaviour of the stored **GHG substance** after the site closure, including an estimate of the costs of the program, and
 - the form and amount of security to be lodged by the applicant, equal to the estimated costs of carrying out the monitoring program.
- 10.12 If the licensee has lodged the specified security within 60 days (or longer period not exceeding 180 days as allowed and agreed by the **RCM**) after the pre-certificate notice was given, the **RCM** will issue a **site closing certificate**. If the licensee does not lodge the security within 60 days (or an allowed longer period), the application for the **site closing certificate** will lapse.

10.13 Once issued, a **site closing certificate** in respect of the identified GHG storage formation remains in force indefinitely, per section 394 of the [OPGGS Act](#). If the GHG injection licence is transferred, the **site closing certificate** will be transferred to the transferee for the licence per section 395 of the [OPGGS Act](#).

Decommissioning requirements

10.14 As the base case for decommissioning under section 572 of the [OPGGS Act](#), a GHG injection licensee is required to remove from the licence area all structures, equipment and other items of **property** that are neither used, nor to be used in connection with the operations authorised by the permit. This obligation is ongoing and covers both the removal of **property** at the end of injection and the removal of disused **property** at appropriate points through the life of an offshore GHG activity.

Note: This section provides interim guidance on specific issues associated with decommissioning for GHG injection licences. Further general guidance on decommissioning is available in the [Guideline: Offshore petroleum decommissioning](#) but applicants and licensees should note that this guidance has been developed primarily for petroleum titleholders so legislative references will not be correct for GHG titles.

Specific guidance on decommissioning for GHG titles will be developed at a later date.

10.15 The surrender criteria in section 442 of the [OPGGS Act](#) for a GHG injection licence require a titleholder to have undertaken decommissioning (or made alternative arrangements to the satisfaction of the **RCM**).

10.16 In making decisions on the matters outlined in section 442 of the [OPGGS Act](#), the **RCM** will seek advice from [NOPSEMA](#) and take this advice into account prior to making any decisions on the decommissioning requirements for the relevant GHG injection licence.

10.17 For the **RCM** to consent to the surrender, the titleholder is required to have:

- removed all **property** in the surrender area or made other arrangements that are satisfactory to the **RCM** in relation to that **property**, per paragraph 442(3)(c) of the [OPGGS Act](#)
- plugged or closed off all wells made in the surrender area to the satisfaction of the **RCM**, per paragraph 442(3)(d) of the [OPGGS Act](#)
- provided for the conservation and protection of the natural resources in the surrender area to the satisfaction of the **RCM** per paragraph 442(3)(e) of the [OPGGS Act](#)
- made good any damage to the seabed or subsoil in the surrender area to the satisfaction of the **RCM** per paragraph 442(3)(f) of the [OPGGS Act](#).

Accordingly, the titleholder of a GHG storage project must undertake decommissioning of structures and equipment and site remediation, including plugging and closing off all wells, prior to applying for consent to surrender the title.

10.18 It is expected that all property used for offshore greenhouse gas storage operations will be removed following completion of operations. However, alternative decommissioning arrangements may be considered, including for property to be left in-situ, if environmental impacts and risks are deemed acceptable by regulators. Such proposals will be considered case by case and must meet safety and all other applicable regulatory requirements. Titleholders must also obtain any necessary approvals under the [Sea Dumping Act](#).

Note: A proposal to dispose of **property** at sea, or to abandon **property** in situ, may also require a permit under the [Sea Dumping Act](#). Licensees should ensure they engage early with the [Sea Dumping Section](#) in **DCCEE** if they are considering these actions as part of their decommissioning proposals.

Site closing directions

- 10.19 The **RCM** can issue site closing directions to the holder of a GHG injection licence where the **RCM** is satisfied that operations for the injection of a **GHG substance** have ceased, per section 593 of the [OPGGGS Act](#). This enables the **RCM** to give a range of remedial and precautionary directions to the licensee during the site closing period, to ensure that the licensee undertakes decommissioning, and remediation works, and that the stored **GHG substance** does not cause future damage to the environment or other resources, or loss to other users of the sea or risks to health or safety.
- 10.20 The **RCM** may issue a site closing direction if any of the following apply:
- the licensee has applied for a **site closing certificate**
 - the licensee was required under subsection 386(4) of the [OPGGGS Act](#) to apply for a **site closing certificate** and has not done so
 - the licensee was directed by the **RCM** under subsection 386(9) of the [OPGGGS Act](#) to apply for a **site closing certificate** and has not done so.
- 10.21 A site closing direction may require a GHG injection licensee to do any or all the following things:
- remove **property** or make arrangements that are satisfactory to the **RCM** in relation to the **property**
 - plug or close off wells
 - provide for the conservation and protection of the natural resources in the licence area
 - make good any damage to the seabed or subsoil
 - carry out operations to monitor the behaviour of a **GHG substance** in the storage formation
 - undertake activities to eliminate, mitigate, manage or remediate the risk that a stored **GHG substance** will have a significant adverse impact on matters including navigation, fishing, construction or operation of a pipeline, native title rights, the environment, or human health and safety
 - undertake activities to ensure or increase the likelihood that a stored **GHG substance** will behave as predicted in the **site plan**.
- 10.22 Section 594 of the [OPGGGS Act](#) establishes consultation processes the **RCM** must follow before issuing a site closing direction - if the direction requires action in an area that is subject to another person's petroleum or greenhouse gas title for which the licensee is not the registered holder and the registered holder has not already given written consent to a direction being given. The **RCM** may obtain advice from NOPSEMA as part of this process before exercising any powers under section 593 of the [OPGGGS Act](#).
- 10.23 The **RCM** is required to specify the period for the licensee to comply with the direction in the notice giving the direction. The period for compliance with the direction must be reasonable.
- 10.24 The requirements under section 594 of the [OPGGGS Act](#) will not apply in circumstance where the **RCM** is satisfied that the direction is required to deal with an emergency.

Surrender

- 10.25 Section 441 of the [OPGGGS Act](#) provides that GHG injection licensees can seek to surrender some or all of the blocks in relation to which the licence is in force.
- 10.26 The **RCM** may only consent to the surrender if all of the criteria in subsection 442(3) of the [OPGGGS Act](#) are met. GHG Injection licensees should note the requirement that a **site closing certificate** must be in force:
- in relation to each identified GHG storage formation specified in the licence if seeking to surrender all of the blocks in relation to which the licence is in force, per paragraph 442(3)(g) of the [OPGGGS Act](#)
 - in relation to each identified GHG storage formation that extends to the relevant blocks if seeking to surrender some of the blocks in relation to which the licence is in force per paragraph 442(3)(h) of the [OPGGGS Act](#).

Note: See [Fact Sheet: Surrender of Offshore Greenhouse Gas Titles](#) for further information on the surrender process and requirements.

Cancellation

- 10.27 Licensees must meet all obligations under the [OPGGGS Act](#), all [associated regulations](#) and any directions or conditions imposed on their GHG injection licence. A failure to comply with these obligations is grounds for the **RCM** to cancel the licence under section 446 of the [OPGGGS Act](#).
- 10.28 As noted at 10.3, if grounds for cancellation exist, the **RCM** may under subsection 387(9) of the [OPGGGS Act](#) direct a licensee by written notice to apply for a **site closing certificate** within a specified period of at least 30 days.
- 10.29 A failure to comply with this direction is also an offence under subsection 387(11) of the [OPGGGS Act](#).

Note: See [Fact Sheet: Cancellation of Offshore Greenhouse Gas Titles](#) for further information on the grounds for cancellation and the cancellation process.

11. Post closure

Post closure monitoring

- 11.1 Following the issuing of the **site closing certificate** under section 392 of the [OPGGS Act](#), the Commonwealth will undertake the monitoring program as specified in the pre-certificate notice issued under section 391 of the [OPGGS Act](#) to ensure the **GHG substance** is continuing to behave as predicted in [Part A](#) of the **site plan**.
- 11.2 Outcomes of post closure monitoring may be factored into the **RCM**'s determination of whether to declare a closure assurance period under section 399 of the [OPGGS Act](#).

Closure assurance period

- 11.3 Section 399 of the [OPGGS Act](#) provides the **RCM** with the discretion to declare a closure assurance period and if declared, the Commonwealth will assume long-term liability over identified GHG storage formations for which a **site closing certificate** is in force in the manner outlined in sections 400 and 401 of the [OPGGS Act](#).
- 11.4 Following a minimum period of 15 years from the issue of the **site closing certificate**, the **RCM** may declare a closure assurance period. The closure assurance period begins at the end of the day on which injection operations ceased, and ends on the day that the **RCM** decides they are satisfied that:
- the stored **GHG substance** is behaving as predicted in [Part A](#) of the approved **site plan**
 - there is no significant risk that the stored **GHG substance** will have a significant adverse impact on the integrity of the whole or part of a geological formation, the environment and human health or safety.
- 11.5 Where a closure assurance period has been declared the Commonwealth must indemnify the current or former titleholder against liabilities for damages. Where the titleholder ceases to exist, the liability will be taken to be a liability of the Commonwealth.

Trailing liability

- 11.6 Trailing liability refers to the provisions for a titleholder, former titleholder, a related body corporate of a current or former titleholder or a '**related person**' to be required (through a remedial or site closing direction) to undertake decommissioning and remediation activities.

Note: This section provides some guidance on specific issues associated with trailing liability for GHG injection licences. Further general guidance on trailing liability is available in the [Guideline: Trailing liability for decommissioning of offshore petroleum property](#) but licensees should note that this guidance has been developed primarily for petroleum titleholders so legislative references in this guidance may not be the applicable provisions for GHG obligations.

- 11.7 Trailing liability ensures that the obligations and costs associated with GHG injection and storage activities remain the responsibility of those who hold or held the title, benefitted financially from operations under the title or had the ability to influence activities and compliance under the title. Trailing liability is used as a measure of last resort where all other regulatory options are exhausted.
- 11.8 The remedial and site closing directions provisions of the [OPGGS Act](#) set out the decommissioning and/ or remediation activities that [NOPSEMA](#) or the **RCM** may require a person to undertake and are used to implement trailing liability for GHG titles. These directions may be issued to a GHG injection licensee under:

- section 591B of the [OPGGGS Act](#) by [NOPSEMA](#) and section 592 of the [OPGGGS Act](#) by the **RCM** as a remedial direction in circumstances where the GHG injection licence remains in force but no operations for the injection of a **GHG substance** have been undertaken into an identified GHG formation under the licence
- section 593 of the [OPGGGS Act](#) by the **RCM** in circumstances where GHG injection activities have ceased and decommissioning monitoring or remedial activities are required before a site closing certificate has been issued
- section 594A of the [OPGGGS Act](#) by [NOPSEMA](#) and section 595 of the [OPGGGS Act](#) by the **RCM** in circumstances as a remedial direction where the licence has wholly or partly ceased to be in force.

11.9 Remedial and site closing directions can compel a person to remove **property** or make arrangements that are satisfactory to [NOPSEMA](#) or the **RCM** in relation to the **property**, plug or close off wells, provide for the conservation and protection of natural resources in the area, as well as remediate the seabed.

11.10 A site closing direction under section 593 can be issued by the RCM only to the current titleholder for the GHG injection licence.

11.11 The [OPGGGS Act](#) provides for [NOPSEMA](#) (under section 591B and section 594A) or the **RCM** (under section 592 and section 595) to issue remedial directions to a range of persons that are or were connected to a current or former title, or operations under a current or former title, on or after 1 January 2021, including:

- the current registered holder of the title
- a related body corporate, as defined in section 50 of the [Corporation Act 2001](#), of the current registered holder of the title
- a former registered holder of the current or former title
- a related body corporate of a former registered holder of the current or former title at the time the title was in force
- a **related person** in relation to operations under the current or former title.

11.12 The remedial direction provisions under the [OPGGGS Act](#) can be applied at any time in relation to a current or former title. This includes:

- where a title has expired or been wholly or partly revoked, cancelled, terminated or surrendered
- after a closure assurance period has been declared.

11.13 A person could be issued with a remedial direction at any point, including after their involvement in the title has ceased.

11.14 Trailing liability is separate to long-term liability for damages attributable to an act done or omitted to be done in carrying out operations authorised by the title. This long-term liability may be assumed by the Commonwealth. Despite declaration of a closure assurance period, trailing liability provisions are enduring in relation to the persons to which they apply.

Glossary

Cross-Boundary Authority (CBA) – means the responsible State or Northern Territory Minister as applicable and the **RCM**, who are conferred with functions and powers including in relation to cross-boundary GHG injection licences under sections 368A to 368H of the [OPGGS Act](#).

Declaration of Identified Storage Formation (DoSF) – means the declaration under sections 312 or s312A of the [OPGGS Act](#) that one or more identified GHG storage formations are wholly within a relevant title area. This declaration is a pre-condition before an application for a **GHG holding lease** or GHG injection licence can be made.

Designated agreement – means an agreement referred to in section 32 of the [OPGGS Act](#) which for the purpose of this guideline is reached between a GHG titleholder and a petroleum titleholder in relation to the grant of a subsequent GHG injection licence or the carrying on of GHG injection licence operations. Depending on the type of petroleum title impacted the **RCM** must or may have regard to the existence and content of a designated agreement when granting a licence or considering whether to exercise powers to protect petroleum.

Draft site plan – means the draft version of the **site plan** referred to in section 24 of the [OPGGS Act](#), which has not yet been approved by the **RCM**.

Engineering enhancement – will refer to anything that is done by person (as opposed to natural features) to assist with GHG storage, primarily regarding reducing risks of leakage, but also any measures to significantly enhance reservoir properties. This may include, for example, remediating any existing wells from previous operations that penetrate the storage formation, pressure management (such as injection and extraction of water), or increasing the injectivity potential via various methods.

Greenhouse Gas (GHG) holding lease – is a title which may be granted to a titleholder under part 3.3 of the [OPGGS Act](#) who has identified a GHG storage formation wholly situated in a lease area and which the applicant is not currently in a position to inject and permanently store a **GHG substance**, but is likely to be in such a position within 15 years.

Greenhouse Gas (GHG) substances – means under current prescribed regulations carbon dioxide (whether in a gaseous or liquid state) including in a mixture with one or more GHG related substances (whether in a gaseous or liquid state) provided the mixture consists overwhelmingly of carbon dioxide.

Property – refers to structures, equipment, wellheads and other infrastructure brought into the area under the authority of a title granted under the [OPGGS Act](#), during any stage of operations.

Public interest – should be considered with reference to the guidance provided at [sections 3.20 to 3.24 of this Guideline](#).

Related persons – are persons who are the subject of a determination made by the **RCM**, having regard to: whether the person is in a position to significantly benefit financially, or has significantly benefited financially, from operations authorised by the title; whether the person is or has been in a position to influence compliance with obligations under the [OPGGS Act](#); and/or whether the person acts or has acted jointly with a current or former holder of the title in relation to operations authorised by the title. See subsections 591B(2B), 592(2B), 594A(2B) and 595(2B) of the [OPGGS Act](#).

Reportable incident – for the purposes of this Guideline means the form of incident defined in regulation 49 of the [GHG Regulations](#) in relation to an identified GHG storage formation specified in a GHG injection licence.

Responsible Commonwealth Minister (RCM) – means the Minister responsible for administering the [OPGGs Act](#) or another Minister acting for and on behalf of this Minister.

Serious situation – is any of the circumstances outlined in subsection 379(1) of the [OPGGs Act](#).

Significant Risk of a Significant Adverse Impact (SROSAI) – means for the purposes of this Guideline the question determined in line with sections 28, 28A and 29 of the [OPGGs Act](#) as to whether there is a significant risk that the operations that could be or that are being carried on under a GHG injection licence could have a significant adverse impact on the operations carried on under relevant petroleum titles.

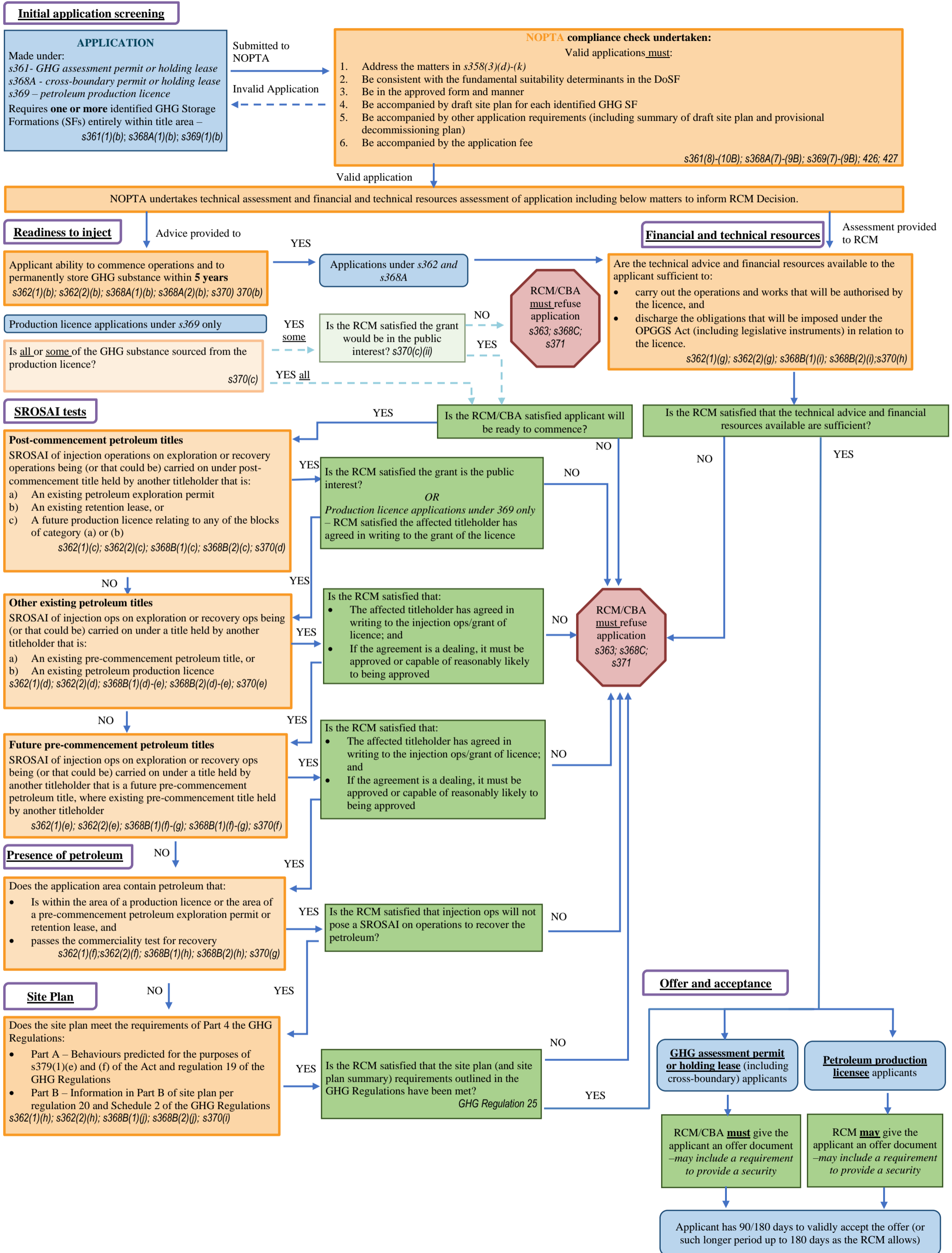
Site closing certificate – means the certificate issued by the **RCM** under section 392 of the [OPGGs Act](#) to a GHG injection licensee following an application under section 386 of the [OPGGs Act](#) and consideration of the licensee's compliance as applicable with the matters outlined in sections 387 to 391 of the [OPGGs Act](#).

Site plan – means per section 24 the [OPGGs Act](#) a document in relation to an identified GHG storage formation which sets out predictions for **GHG substances** stored in that formation and other matters prescribed in regulations.

Tied – has a meaning outlined in section 13 of the [OPGGs Act](#) in relation to a **GHG holding lease** granted under section 345 of the [OPGGs Act](#) to the registered holder of a petroleum retention lease.

Attachment 1 – GHG injection licence application process flowchart

Note that this specific page is formatted to A3 size.



Attachment 2 – Site closure process flowchart

Operational phase of a project

Licensee complies with operational obligations under the OPGGS Act and regulations

Licensee considers if any triggers for mandatory applications for site closing certificate

- Cessation of injection operations - s386(4)*
Must be made within **30 days** (or up to **90 days** if approved by RCM)
- When required by RCM due to grounds for cancellation - s386(9)*
Must be made in the period specified by the RCM
- A tied petroleum title ceases to be in force - s386(13)*
Must be made in **30 days** (or up to **90 days** if approved by RCM)

KEY

- RCM actions/decisions
- RCM considerations
- Licensee actions/obligations
- Licensee considerations
- Negative outcomes (applicant triggered processes may recommence)

Site closing certificate (SCC)

Licensee applies for site closing certificate - s386

Application must be accompanied by s386(2):

- Modelling of behaviour of GHG in formation and associated analysis
- Assessment of behaviour, expected migration and consequences of migration
- Suggestion for Commonwealth (Cth) approach to monitoring of GHG behaviour after issuing of certificate

RCM considers validly made application

RCM determines whether to issue pre-certificate notice within **5 years** of receipt of application for site closing certificate

Is RCM satisfied injection operations have ceased or did not occur - s388(1)

Yes

Must consider SROSAI impacts on navigation, fishing, lawful pipeline construction and operations and native title rights - s388(2)

Satisfied

RCM may refuse if per s388(4):

- Not satisfied GHG substance is behaving as predicted in site plan
- Satisfied of SROSAI on natural resource conservation or exploitation, geotechnical integrity, the environment or human health or safety

N/A or RCM chooses not to refuse

RCM must refuse if per s388(6) the relevant statutory requirements have not complied with (licence conditions, chapters 3, 5, 5A and 6 and Part 8.1) AND there are not sufficient grounds to warrant issue of SCC

No mandatory refusal grounds

Pre-certificate notice may be issued to GHG injection licensee - s388(1)

Notice must specify per s391:

- Cth proposed work program for monitoring GHG behaviour
- estimate of costs and expenses for carrying out work program
- form and amount of security to be lodged to meet SCC holder's cost and expense obligations in relation to the monitoring program
- statement noting application will lapse if security not lodged in 60 days (or up to 180 days if approved by RCM)

Licensee does not meet mandatory application timeframes

Licensee commits strict liability offence

Licensee undertakes decommissioning activities consistent with risk management plans accepted by NOPSEMA:

- Environment Plan
- Well Operations Management Plan (WOMP)
- Safety Case

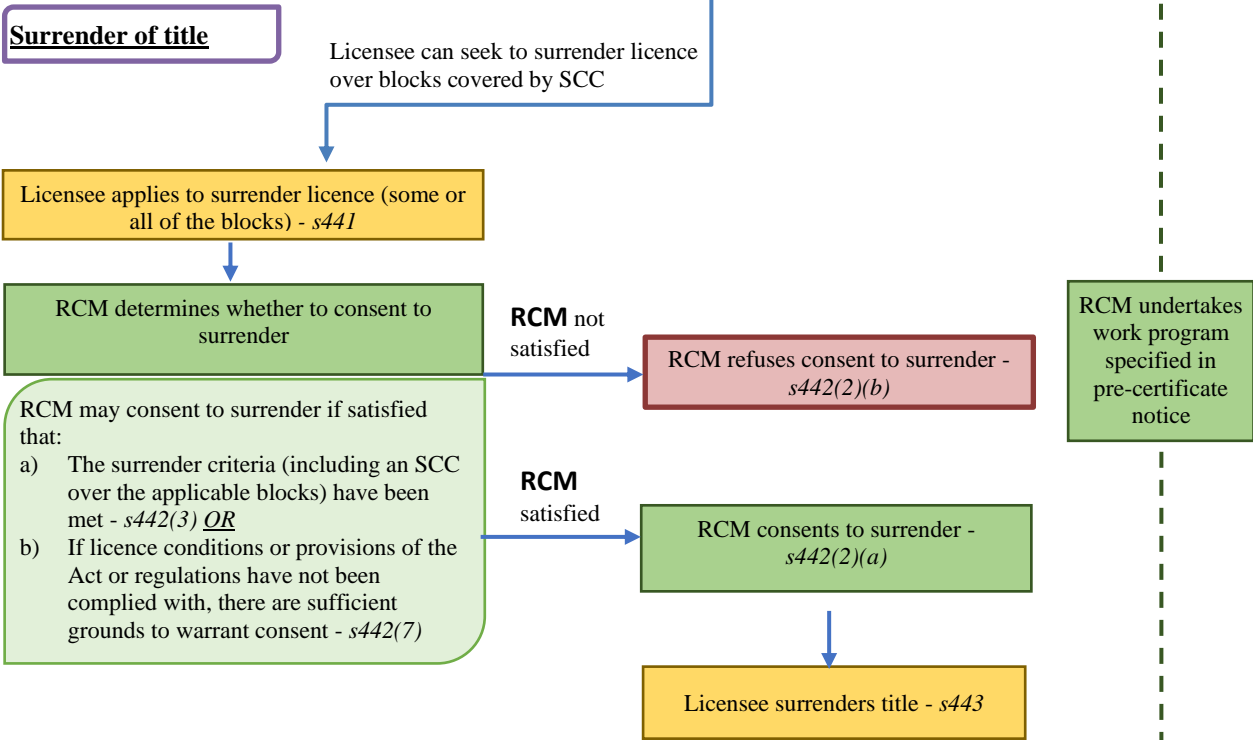
All decommissioning must be completed before the RCM can consent to the surrender of the licence.

RCM refuses to give pre-certificate notice - s390

Application lapses - s391(4)

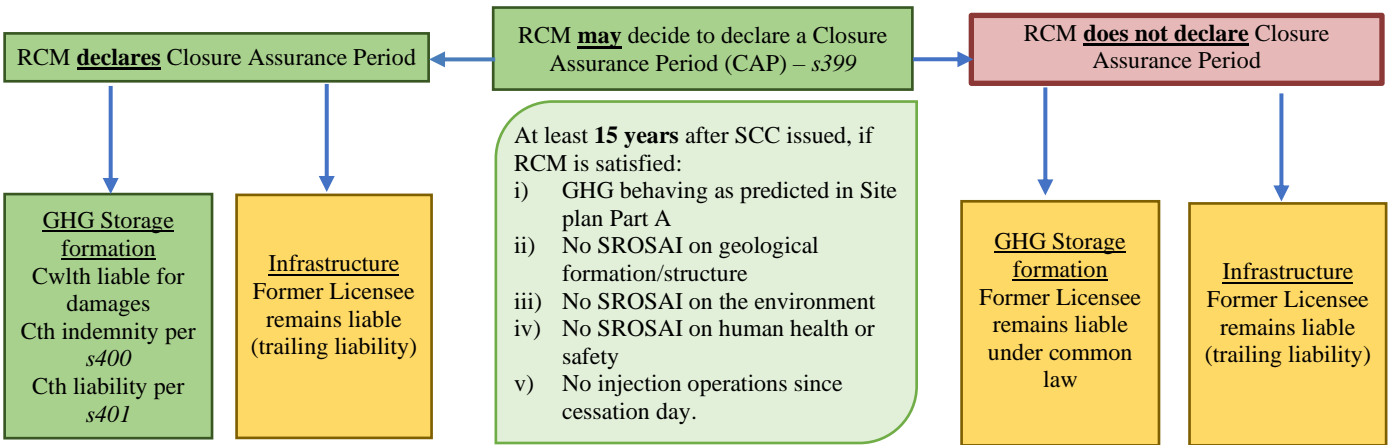
RCM must issue site closing certificate - s392

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Post closure monitoring

Long term liability



Attachment 3 – Multiple storage formation diagram

The following diagrams provide a schematic interpretation of the scenarios referred to in section 361 of the [OPGG Act](#).

