



FY23 Q4

Application assessment for steel casing in wells

Operational guideline
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Resources
Safety & Health
Queensland

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Version History

Version	Date	Comments
1.00	29/05/2019	Initial version for publication
1.01	05/06/2019	Minor update to correct typographical errors
1.02	27/11/2019	Update to part four to note the definition of a horizontal well is provided in the updated code of practice for the construction and abandonment of petroleum wells and associated bores in Queensland.
2.00	05/04/2024	<ol style="list-style-type: none"> 1. Revisions to reflect legislative amendments for steel casing provisions in the Petroleum and Gas (Safety) and Other Legislation Amendment Regulation 2022. 2. Revisions to reflect establishment of Resources Safety and Health Queensland.

Approval

Position	Name	Date
Executive Director, Resources Safety and Health	Mark Stone	27/11/2019
A/Chief Inspector, Petroleum and Gas	Nathan Wilkins	05/04/2024

Background

The use of steel casing is prohibited in relevant horizontal wells by section 52A of the Petroleum and Gas (Safety) Regulation 2018 (the PG Safety Regulation) where the wells (a category of operating plant) are located in an overlapping area.

A **relevant horizontal well** is defined in schedule 7 of the PG Safety Regulation as a petroleum well, any part of which travels in a generally horizontal direction within or adjacent to a coal seam.

An **overlapping area** is an area where there is operating plant (wells) located in the area of a coal or oil shale mining lease or tenement¹ or the area of a coal resource authority to which the Common Provisions Act², chapter 4 applies. This is set out in section 52A(1) of the PG Safety Regulation which references sections 705(a)(i) and (iii) of the *Petroleum and Gas (Production and Safety) Act 2004* (the PG Act).

As petroleum producers move into more technically challenging areas, different techniques are required to economically develop coal seam gas resources. This development must occur in a way that protects worker and community safety.

The Chief Inspector of Petroleum and Gas may decide to exempt this prohibition with the consent of the Chief Inspector of Coal Mines, under section 62 of the PG Safety Regulation. Steel casing presents a potential ignition source for coal seam gas if it comes into contact with mining equipment.

Exemption applications will be assessed by the Resources Safety and Health Queensland (RSHQ) having regard to the circumstances of each case and the objective of optimising safe and sustainable development of coal and coal seam gas resources.

Purpose

This operational guideline outlines how RSHQ assesses applications seeking an exemption to use steel casing in relevant horizontal wells located in overlapping areas.

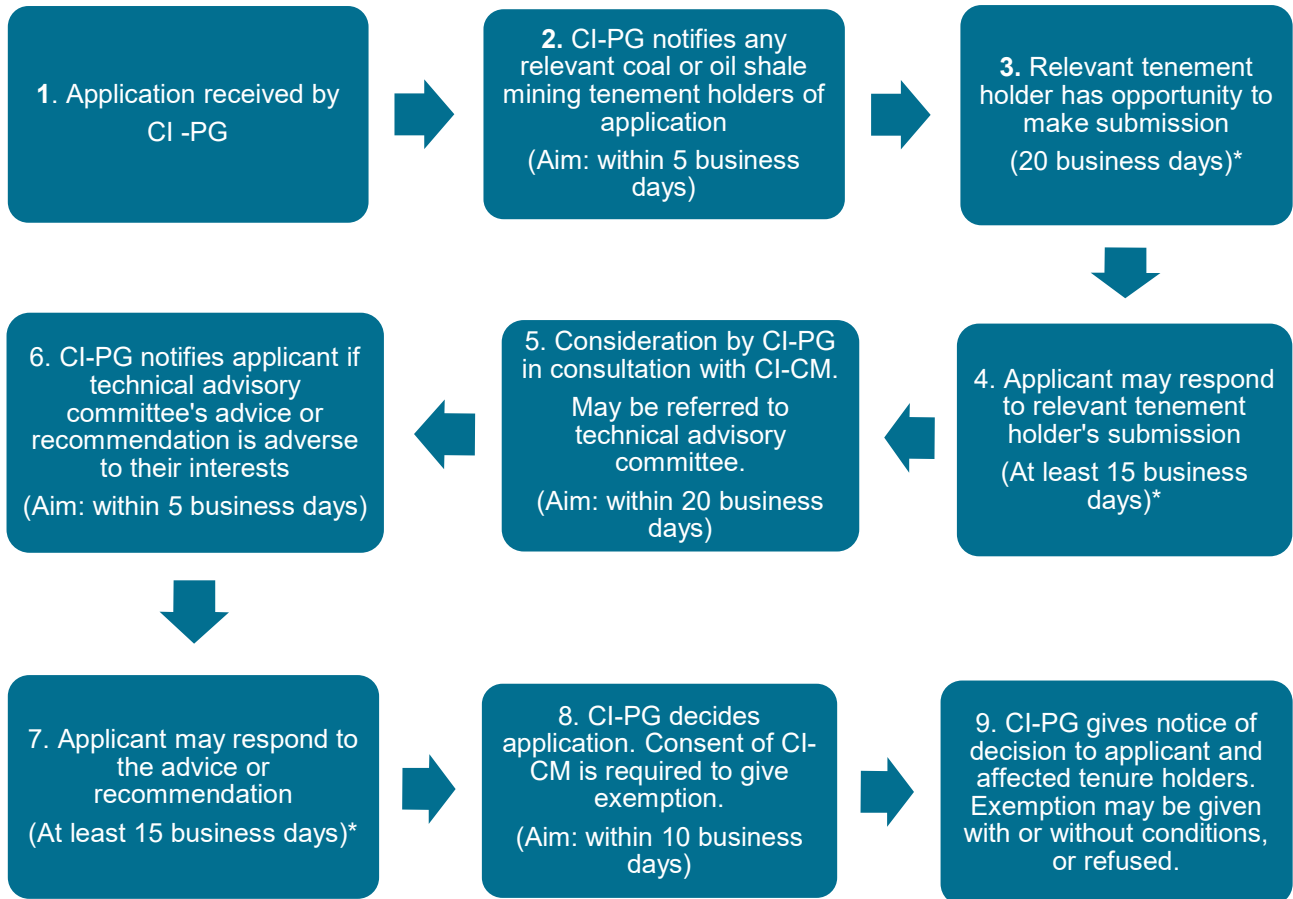
The information provided in this policy does not limit the exercise of discretion nor does it override relevant legislative provisions.

¹ A tenement granted under the *Mineral Resources Act 1989* for:

- a coal or oil shale mining lease
- an exploration permit granted for coal or oil shale
- a mineral development licence granted for coal or oil shale

² *Mineral and Energy Resources (Common Provisions) Act 2014*

Overview of application process



NOTES

1. Timescales have been included for information
2. Timescales in boxes 3, 4 and 7 are based in the legislation and are not subject to the discretion of the Chief Inspector
3. All other timescales are indicative
4. CI-PG = Chief Inspector, Petroleum and Gas
5. CI-CM = Chief Inspector, Coal Mines

Application requirements

Pre-application

Overlapping areas are subject to a legislative framework³ that places obligations on coal mining and coal seam gas entities to develop a Joint Interaction Management Plan (JIMP) and have regard to any reasonable proposals for managing risks and hazards. The framework provides for arbitration to resolve any failure to agree.

The process set out in the legislation for developing a JIMP should be conducted prior to making an exemption application under section 63 of the PG Safety Regulation. Overlapping coal or oil shale mining tenement holders have opportunity to make submissions about an exemption application.⁴ It is recommended applicants enter into discussions with these parties before submitting their application to RSHQ. Failure of any party to engage in discussions in good faith will be a relevant consideration in deciding the exemption application.

Applicants are also encouraged to discuss with the Petroleum and Gas Inspectorate the circumstances upon which an exemption application may be based before prior to the application being submitted.

Application for an exemption

An [application](#) for an exemption to section 52A of the PG Safety Regulation may be made by the operator or the proposed operator of an operating plant, using the approved form. The application should identify all relevant information for an exemption of section 52A of the PG Safety Regulation, including:

- the reason for seeking the exemption
- the location of the operating plant
- coal seam intersection information
- the proposed operation
- the likely impact on the future safe and efficient mining of coal, including realistic expectations of removing steel casing⁵ and
- any proposed alternative safety measures.

³The overlapping tenures framework is governed by the *Mineral and Energy Resources (Common Provisions) Act 2014*, the *Mineral Resources Act 1989*, the *Coal Mining Safety and Health Act 1999*, the *Petroleum Act 1923*, the *Petroleum and Gas (Production and Safety) Act 2004* and related subordinate legislation.

⁴ Section 64 of the PG Safety Regulation

⁵ Further exemptions at the time of abandonment (additional safety requirements) under sections 53-56 of the PG Safety Regulation may be needed.

Assessment of application

The Chief Inspector, Petroleum and Gas, may, with the consent of the Chief Inspector, Coal Mines, give an exemption with or without conditions, if reasonably satisfied⁶;

- the likely impact on the future safe and optimal mining of coal is low
- the likely level of risk to a person or property associated with the mining or future mining of coal is an acceptable level and
- the likely impact and level of risk are easily and reliably quantifiable

These matters will be assessed within the context of the safety objectives of the PG Act and the *Coal Mining Safety and Health Act 1999* and having regard to the considerations listed below.

Safety will be the principal consideration in decision-making. Within this context, avoiding circumstances which negatively impact on resource recovery is desirable. Where the applicant and affected tenement holders agree on a course of action, the pathway to a decision is less complicated, but still subject to risk assessment.

Relevant considerations

Resource-specific considerations:

- The level of understanding of, and the potential value of the coal resource affected or the gas resource in question
- The number and location of wells
- The technical and commercial maturity of the resource and timeframes for production of both the coal and gas resource
- The nature of the coal resource (e.g., underground or open-cut, thickness, permeability, and depth)
- The extent to which geology impacts operations, including whether coal and gas are separated or targeted in the same seam
- The nature of existing coal and gas leases, tenures, approvals, and licences relating to the land
- The nature and extent of enabling infrastructure

Other considerations:

- The technical justification for using steel casing
- Whether there is agreement between the applicant and relevant coal or oil shale tenement holder (NOTE: an agreement between the overlapping parties does not require the chief inspectors to decide to grant an exemption)
- The extent to which the applicant and relevant coal or oil shale tenement holder have engaged to reach an agreement

⁶ Section 66 of the Petroleum and Gas (Safety) Regulation 2018

Examples

The following examples are provided to illustrate potential application scenarios.

Example 1 – Agreement reached

A coal resource is situated in a well-developed basin. Multiple mineral development licences (MDLs) and mining leases (MLs) have been granted in the resource area. Significant enabling infrastructure has been developed and is readily accessible for the coal tenure holders.

The Authority to Prospect (ATP) holder and relevant ML holder have engaged in discussions and the ML holder supports the proposal to use a relevant horizontal well with steel casing, with conditions agreed between the parties related to timing of operations and removal of casings at the cessation of operations. The agreement has been submitted with the application for exemption.

Subject to assessment of relevant considerations, it is more likely than not that the exemption would be given in this example.

Example 2 – No agreement reached

A coal resource is situated in a well-developed basin. Multiple MDLs and MLs have been granted in the resource area. Significant enabling infrastructure has been developed and is readily accessible.

The ATP holder has attempted to engage with the relevant MDL holder but has not been able to secure agreement to the proposal. The MDL holder is not currently actively mining the area.

The Chief Inspector, Petroleum and Gas will consider relevant considerations in consultation with the Chief Inspector, Coal Mines, when assessing risk and safety implications to inform the making of a decision.

Authorising legislative provisions

Key authorising provisions for this policy are:

[PG Safety Regulation, s52A](#) prohibits the use of steel casing to drill or complete a relevant horizontal well in particular overlapping areas.

[PG Safety Regulation, s62](#) allows for an exemption from the requirement under section 52A in relation to a petroleum well drilled or to be drilled under a stated petroleum tenure; a stated petroleum well; or a stated coal seam.

[PG Safety Regulation, ss63-66](#) sets out the process for making, considering, and deciding an exemption application.

[PG Safety Regulation, schedule 7, Dictionary](#) defines a 'relevant horizontal well'.

[Petroleum and Gas \(Production and Safety\) Act, s705\(a\)\(i\) and s705\(a\)\(iii\)](#) are the particular types of overlapping areas for which the use of steel casing is prohibited under s52A of the PG Safety Reg. They are where operating plant is operating or is to operate in either the area of a coal or oil shale mining lease or tenement or the area of a coal resource authority to which the Common Provisions Act, ⁷ chapter 4 applies.

⁷ *Mineral and Energy Resources (Common Provisions) Act 2014*



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