



Resources Safety & Health
Queensland

Gas Device Approval Authority Requirements

Petroleum and Gas Inspectorate

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Summary

The approval of gas devices (gas appliances) is a standard requirement of Australian and international safety regulators. In Queensland, section 731AA of the *Petroleum and Gas (Production and Safety) Act 2004* (the Act) provides that a holder of a gas device approval authority (GDAA) may approve a gas device for supply, installation or use.

Provisions in the Act and the Petroleum and Gas (Safety) Regulation 2018 establish a statutory basis for appointing and conditioning persons (including corporations) as holders of a GDAA.

This document, the *Gas Device Approval Authority Requirements*, is referenced in the Regulation and sets out what is required when applying for a GDAA.

All GDAA applications must be made in the approved form. The application form may require other general information or supporting documents (e.g. work log, certified copy of a qualification).

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Acronyms and glossary

Acronym / Term	Description
chief inspector	the person appointed chief inspector, Petroleum and Gas, under the Act
Code of Practice	the <i>Queensland Code of Practice – Gas device approval authority holders</i>
conformity assessment body	an entity that holds accreditation with the Joint Accreditation System of Australia and New Zealand for operating a product certification scheme for gas-related products in accordance with AS/NZS ISO/IEC 17065 ‘ <i>Conformity assessment— Requirements for bodies certifying products, processes and services</i> ’
eligible gas device type A	a gas device type A specified in Part 3 of the Code of Practice
fuel gas refrigeration device	a gas device type B that uses fuel gas as a refrigerant (see section 724 and schedule 2 of the Act)
gas device type A	as defined by section 724 of the Act
gas device type B	as defined by section 724 of the Act
gas work authorisation	granted under the Act to authorise the holder, or an individual working under the holder’s authority, to undertake gas work in relation to a gas device type B
gas work licence	granted under the Act to authorise the holder to undertake gas work in relation to a gas device type A or a fuel gas refrigeration device
GDA / gas device approval authority	granted under the Act to authorise the holder to undertake gas device approval work
GTRC	Gas Technical Regulators’ Committee
GTRC rules	<i>Rules for Gas Appliance and Component Certification for Australia</i> published by the Gas Technical Regulators’ Committee
GDA type A	a GDA authorising the holder to undertake gas device approval work for a gas device type A
GDA type A2	a GDA authorising the holder to undertake gas device approval work for an eligible gas device type A
GDA type B	a GDA authorising the holder to undertake gas device approval work a gas device type B that is not a fuel gas refrigeration device
GDA type B2	a GDA authorising the holder to undertake gas device approval work for a fuel gas refrigeration device
the Act	the <i>Petroleum and Gas (Production and Safety) Act 2004</i>
the Regulation	the Petroleum and Gas (Safety) Regulation 2018
this Requirements Document	the <i>Gas Device Approval Authority Requirements</i> document

Introduction

The regulatory framework supporting approval of gas devices in Queensland comprises:

- chapter 9, part 6A of the Act
- chapter 7A of the Regulation
- this Requirements Document and
- the Code of Practice

The regulatory framework is supported by Technical Guidelines:

- *Guideline for Gas Safety and Compliance Information required for eligible type A gas device approval* and
- *Guideline for Gas Safety and Compliance Information required for type B gas device approval*

There are **four categories of GDAA**

GDAA category	Scope of gas device approval work that can be undertaken
type A	authority for conformity assessment bodies to approve a gas device type A
type A2	authority to approve an eligible gas device type A
type B	authority to approve a gas device type B that are not fuel gas refrigeration devices
type B2	authority to approve fuel gas refrigeration devices

The **Act** (section 731AA) makes it an offence to supply a gas device (type A), install or use a gas device (type A and type B) in Queensland unless the supply, installation or use has been approved by the chief inspector or the device has been approved for supply, installation or use by the holder of a GDAA.

The Act also provides:

- what the chief inspector is to consider when deciding to grant or refuse an application
- an information notice is to be given if an application is refused
- an information notice is to be given if an applicant does not agree with conditions
- an offence for non-compliance with authority conditions and
- for matters that can be prescribed in the Regulation

The **Regulation** prescribes:

- qualification and experience requirements for GDAA applications
- provisions that allow the chief inspector to grant a GDAA where an applicant can otherwise demonstrate the skill and knowledge required to approve a gas device
- suitable person considerations

- conditions for holding a GDAA including compliance with conduct and technical requirements prescribed in the Code of Practice

This Requirements Document:

- sets out the suitable person considerations and the qualification and experience requirements for each category of GDAA
- provides information about how an applicant may otherwise demonstrate skill and knowledge to support their application for a GDAA
- establishes classes of gas devices type B for the assessment of an applicant's expertise and to condition the granting of a GDAA type B and type B2 and
- provides information about matters that may be included in a GDAA as a condition imposed by the chief inspector (e.g. permission to install certain devices, mentoring, classes of type B gas devices, managing conflicts of interest)

The **Code of Practice** prescribes conduct and technical requirements for GDAA holders. It also specifies eligible gas devices type A that a GDAA holder type A2 may approve.

The **Technical Guidelines** outline the technical information and format required for approving an eligible gas device type A and a gas device type B in Queensland.

Document history

Version	Date of publication	Date of effect	Key changes
1	18 September 2020	18 September 2020	
2	1 September 2021	1 September 2021	General update including information about conflicts of interest and their management

PART 1 Suitable person considerations

Who is a suitable person?

Section 731AD of the Act and section 138C of the Regulation specify matters the chief inspector may consider in deciding whether an applicant is a suitable person to hold a GDAA. These include whether the applicant has:

- been subject to any non-compliance action
- been convicted of an indictable offence
- been convicted of an offence against the Act
- had an equivalent authority cancelled or refused by another State or Territory or New Zealand
- a disability or medical condition that would prevent them from complying with the technical requirements of the Code of Practice¹

There may be other matters, that the chief inspector considers in determining whether an applicant is a suitable person. For example, the chief inspector may consider conflicts of interest (whether actual, perceived or potential) that may arise if the applicant were to be granted a GDAA.

¹ When considering disability and medical conditions the chief inspector may consider applications that demonstrate non-traditional methods of complying with the technical requirements of the Code of Practice. For example, video link for witnessing safety testing.

PART 2 Requirements for a GDAA type A

A GDAA type A is an authority for conformity assessment bodies to approve gas devices type A. It authorises holders to carry out gas device approval work in relation to gas devices type A under a nationally recognised certification scheme for gas-related products.

To apply for a GDAA type A, a person must:

1. be a suitable person (see Part 1 of this Requirements Document) and
2. hold accreditation with the Joint Accreditation System of Australia and New Zealand for operating a product certification scheme for gas-related products in accordance with *AS/NZS ISO/IEC 17065 'Conformity assessment— Requirements for bodies certifying products, processes and services'*

PART 3 Requirements for a GDAA type A2

A GDAA type A2 is an authority to approve an eligible gas device type A. It authorises holders to carry out gas device approval work for eligible gas devices type A as stated in the GDAA. Part 3 of the Code of Practice specifies what is an eligible device type A.

To apply for a GDAA type A2, each individual who is to perform gas device approval work must:

1. be a suitable person (see Part 1 of this Requirements Document) and
2. hold each of the qualifications specified in Table 3.1 and
3. have the minimum experience specified in Table 3.2

As part of the assessment process, the chief inspector or delegate may form a panel or board to ensure a consistent and transparent process. The applicant may also be required to do any or all of the following:

- attend an interview
- undertake a technical assessment by verbal, written or practical examination

Table 3.1	Qualification requirements – GDAA type A2
1.	A Queensland gas work licence that is in force
2.	A Queensland gas work authorisation that is in force OR Completion of the current unit of competency Irequired for a gas work authorisation – industrial appliance

Table 3.2	Minimum experience requirements – GDAA type A2
1.	A minimum of 5 years gas work experience in relation to gas devices type A, documented in a work experience log, specifying experience in gas device: <ol style="list-style-type: none">a. installation and commissioningb. servicingc. fault diagnosisd. combustion analysis

PART 4 Requirements for a GDAA type B

A GDAA type B is an authority to approve any gas device type B, except for fuel gas refrigeration devices. A GDAA type B2 is required to approve fuel gas refrigeration devices, see Part 5 of this Requirements Document.

A GDAA type B authorises holders to carry out gas device approval work for gas devices type B as stated in the GDAA. A GDAA type B will specify the class or classes of gas device type B that the holder is authorised to approve.

To apply for a GDAA type B, each individual who is to perform gas device approval work must:

1. be a suitable person (see Part 1 of this Requirements Document) and
2. hold each of the qualifications specified in Table 4.1 and
3. have the minimum experience specified in Table 4.2

The scope, complexity and risk profile of gas devices type B is diverse. To ensure the granting of a GDAA type B aligns with the competency of the applicant, gas devices type B are classified in Table 4.3 (Classes of gas devices type B). The four classes of gas devices type B are:

- Risk based assessment for Very Simple devices (Class VS)²
- Simple (Class S)
- Complex (Class C) and
- Major (Class M)

The classes reflect increasing risk associated with higher gas consumption rates, complexity of control and operating systems and specialised devices and processes. Applicants demonstrating the minimum qualifications and experience will be assessed for approval of Class S gas devices that use natural gas and liquified petroleum gas (LP Gas) by way of combustion only. Applicants seeking authorisation to approve other classes of gas devices type B or other fuel gas types will need to provide additional information demonstrating relevant experience and qualifications.

Examples of experience and qualifications that could demonstrate competency for a GDAA type B to approve Class VS, Class C and Class M gas devices type B include:

- Experience as a GDAA type B Class S for Class VS, Class C, Class M applications

² This class of device allows for an appropriately qualified and experienced GDAA holder to undertake the risk assessment of a very simple gas device type B. It allows for the approval of one-off, made-to-order gas devices that are not within the scope of industry standards

- Qualifications and experience in hazard identification and risk management for Class VS, Class C, Class M applications
- Qualifications in Safety Integrity Level assessment or equivalent for Class C, Class M applications
- Experience with differing quality and characteristics of fuel gas (eg. non-odourised, liquid phase) for Class C, Class M applications
- Experience of emerging and alternative fuels (eg. biogas, biomethane, hydrogen or synthetic natural gas) for Class C, Class M applications

As part of the assessment process, the chief inspector or delegate may form a panel or board to ensure a consistent and transparent process. The applicant may also be required to do any or all of the following:

- attend an interview
- undertake a technical assessment by verbal, written or practical examination

Table 4.1 Qualification requirements – GDAA type B	
1.	<p>A Queensland gas work licence or interstate equivalent that is in force</p> <p>OR</p> <p>A Queensland gas work authorisation or interstate equivalent that is in force</p> <p>OR</p> <p>A tertiary qualification in engineering in a related discipline</p>

Table 4.2 Experience requirements – GDAA type B	
1.	<p>A minimum of 5 years’ experience in the fuel gas industry, documented in a work experience log, that specifies experience in gas device:</p> <ul style="list-style-type: none"> a. design b. installation and commissioning c. servicing d. fault diagnosis e. combustion analysis

Table 4.3 Classes of gas devices type B for approval by GDAA type B

	CLASS VS (Very Simple Device – risk based assessment)	CLASS S (Simple Devices)	CLASS C (Complex Devices)	CLASS M (Major device)
Gas consumption rate and design restrictions	<200MJ/hour Manual on/off control Firing into open combustion area	S1 < 200 MJ/hour S2 < 500 MJ/hour S3 <1000 MJ/hour S4 < 5000 MJ/hour	C1 < 5 GJ/hour C2 < 10 GJ/hour C3 < 20 GJ/hour C4 < 50 GJ/hour	> 50 GJ/hour
Atmospheric Burners	Yes	Yes	Yes	Yes
Forced/induced draft burners	<i>Not authorised</i>	Yes – limited to 1000 MJ/hr	Yes	Yes
Liquid LPG Burners	<i>Not authorised</i>	<i>Not authorised</i>	Yes	Yes
Electronic Control Circuit	<i>Not authorised</i>	<i>Not authorised</i>	Yes	Yes
Explosion relief to AS1375	<i>Not authorised</i>	<i>Not authorised</i>	Yes	Yes
Purge Volume >10m ³	<i>Not authorised</i>	<i>Not authorised</i>	Yes	Yes
Maximum gas pressure	<i>Not authorised</i>	200 kPa	No limit	No limit

PART 5 Requirements for a GDAA type B2

A GDAA type B2 is an authority to approve fuel gas refrigeration devices. It authorises holders to carry out gas device approval work for fuel gas refrigeration devices as stated in the GDAA. A GDAA type B2 will also specify the class or classes of fuel gas refrigeration device that the holder is authorised to approve.

To apply for a GDAA type B2, each individual who is to perform gas device approval work must:

1. be a suitable person (see Part 1 of this Requirements Document) and
2. hold each of the qualifications specified in Table 5.1 and
3. have the required experience specified in Table 5.2

Table 5.3 (Classes of fuel gas refrigeration devices) classifies fuel gas refrigeration devices based on increasing risk from higher gas consumption rates and complexity of control and operating systems. It establishes two classes of fuel gas refrigeration devices – HC1 and HC2.

Applicants should demonstrate their particular qualifications and experience in relation to these classes so that the assessment for granting a GDAA type B2 can align their qualifications and experience with the particular risks associated with specific fuel gas refrigeration devices such as:

- Domestic refrigerator / freezer /air conditioning appliances
- Split system air conditioning systems
- Commercial / industrial refrigeration devices
- Commercial/industrial air conditioning systems

As part of the assessment process, the chief inspector or delegate may form a panel or board to ensure a consistent and transparent process. The applicant may also be required to do any or all of the following:

- attend an interview
- undertake a technical assessment by verbal, written or practical examination

Table 5.1	Qualification requirements – GDAA type B2
1.	Tertiary degree in a relevant discipline: Mechanical / Electrical / Refrigeration / Air Conditioning
2.	Completion of the unit of competency – UEENEEJ174A (Apply safety awareness and legal requirements for hydrocarbon refrigerants)

Table 5.2	Minimum experience requirements – GDAA type B2
1.	<p>A minimum of 10 years’ experience in the refrigeration gas industry, documented in a work experience log that specifies experience in:</p> <ul style="list-style-type: none"> a. hazard identification and risk management principles and b. hazard areas requirements

Table 5.3 Classes of fuel gas refrigeration devices

Class	Refrigerant charge	Device type
HC1	<1500 grams	Domestic refrigeration and air conditioning devices
HC2	>1500 grams	Commercial/industrial refrigeration and air conditioning devices

PART 6 Alternative pathway for obtaining a GDAA

Where a person does not have the qualifications or experience prescribed in section 138B of the regulation and set out in parts 2-5 of this Requirements Document, section 138B provides a GDAA can be granted if the chief inspector reasonably believes a person can otherwise demonstrate the skills and knowledge required to approve gas devices.

This alternate pathway requires a written application be made using the approved form for GDAA applications. The application is to include information demonstrating appropriate and relevant skills, experience, knowledge and competency for approving gas devices related to the category of GDAA being sought.

As part of the assessment process, the chief inspector or delegate may form a panel or board to ensure a consistent and transparent process. The applicant may also be required to do any or all of the following:

- attend an interview
- undertake a technical assessment by verbal, written or practical examination

PART 7 Scope of work for GDAA's type B and type B2

Section 731AD(4) of the Act provides for the chief inspector to impose a condition when making a decision about granting a GDAA. This allows a GDAA to be granted with individual conditions for a holder that apply in addition to general conditions prescribed by the Regulation and the Code of Practice.

Conditions that specify the scope of work for the holder of a GDAA are authorised by this provision.³

A GDAA type B and a GDAA type B2 granted under s731AA of the Act will include a condition in relation to one or more of the classes of gas devices (see Table 4.3 in Part and Table 5.3 in Part 5) and may also include a level limit within a class. The holder must only approve gas devices as conditioned in their GDAA.

Other conditions may also limit gas device approval work to a specified area of competence. For example, a GDAA type B holder is authorised to approve S4. The GDAA authorises gas device approval work for devices meeting the S criteria up to a gas usage rate of 5000MJ/hr.

³ NOTE: This does not preclude the chief inspector from imposing other conditions, see Part 8.

PART 8 Conflicts of interest

Confidence in the Government's role for ensuring gas devices are safe and appropriately approved could be adversely affected by a conflict of interest. A conflict of interest can be actual, perceived or potential. A conflict of interest can arise in a work situation where an individual has a role in device approval and device design, construction and installation. A conflict of interest can also occur between an individual's private or personal interests and their authority as a GDAA holder.

Transparent disclosure and effective management of conflict of interests encourages accountability and ensures confidence in government administration. Conflicts of interest are not wrong in themselves and it is possible for some to coexist if they are fully disclosed and effectively managed.

Device approval and design, construction and installation processes

Section 138G of the Regulation conditions GDAA holders not to approve gas devices where the holder (or their employer or employee), is involved in the device's design, construction or installation processes, unless the holder is authorised by the chief inspector. This provision supports separation of activities to support professional conduct requirements for conflict of interest. Related activities, if undertaken by a single individual, could generate a conflict of interest and breach conduct requirements under the Code of Practice.

The chief inspector may authorise the holder of a GDAA type B, that also holds a gas work authorisation, to approve gas devices type B for which they or their employer or employee design, construct or install.

Chief inspector authorisations for this purpose are limited to the following situations:

1. Gas devices type B Class S where the GDAA holder is authorised to approve class S devices.
2. Gas devices type B Class S where the GDAA holder is authorised to approve class C devices.
3. All classes (except Class M) of gas devices type B, where a GDAA holder is authorised to approve Class C devices and the holder is an organisation, corporation, company or body that also holds a gas work authorisation, and the holder can demonstrate transparent separation between the business units undertaking the approval work and the design, construction or installation work.

Installation of gas devices type B Class M must be undertaken by a major project gas work authorisation holder that is financially and commercially independent of the GDAA type B holder.

Applicants for a GDAA type B should request chief inspector authorisation if they intend to undertake gas device approval work for devices where they (or their employer or employee) is to also have a role in design, construction and installation processes.

Other conflicts of interest

An applicant may identify other situations that could result in an actual, perceived or potential conflict of interest if they were granted a GDAA, e.g. they are contracted to the Petroleum and Gas Inspectorate OR they hold an executive position on a gas industry body routinely consulted by the Inspectorate for stakeholder feedback.

The Inspectorate recognises there may be circumstances in which disclosed conflicts of interest can be managed without adversely affecting gas device approval work.

Managing conflicts of interest

If an applicant identifies a conflict of interest, including those provided for in section 138G of the Regulation, their application is to include a proposal for how this conflict of interest is to be managed. In determining to grant a GDAA, the chief inspector may reject the application where a conflict of interest cannot be managed in the public interest or impose conditions for how the holder is to manage the conflict of interest.

Section 731AD(4) of the Act provides for the chief inspector to impose a condition when making a decision about granting a GDAA. This allows a GDAA to be granted with individual conditions for a holder that apply in addition to general conditions prescribed by the Regulation and the Code of Practice.

For GDAA holders, the Professional conduct requirements in part 2 of the Code of Practice require them to resolve or manage appropriately any conflict or incompatibility between private or personal interests and impartially carrying out their gas device approval work.

PART 9 Changing scope or conditions of a GDAA

A GDAA holder may apply, in the approved form, to change the scope or other conditions of an existing GDAA.

For increasing the scope of gas device approval work, the chief inspector will assess additional experience and knowledge demonstrated by the applicant. This additional experience and knowledge may be demonstrated through their gas device approval work or where they have participated in gas device approval work under the mentorship and authority of another GDAA holder.