



Suitably Qualified Expert

Application Guidelines

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Disclaimer

Guidelines are not legally binding other than to the extent they refer to binding legislation, identified throughout.

Guidelines should be read in conjunction with the *Space (Launches and Returns) Act 2018* (the Act), the *Space (Launches and Returns) (General) Rules 2019* (the General Rules) and the *Space (Launches and Returns) (High Power Rocket) Rules 2019* (the High Power Rocket Rules). Guidelines do not exclude, limit or replace the requirements of the Act, General Rules and High Power Rocket Rules. If there is any ambiguity or inconsistency, the Act, General Rules and/or High Power Rocket Rules have precedence.

This publication is not legal or professional advice. Persons rely upon this publication entirely at their own risk and must take responsibility for assessing the relevance and accuracy of the information in relation to their particular circumstances.

Version control

Version	Date	Details
1.0	December 2023	Initial issue.
1.1	August 2024	Updated to reflect changes to application process, now managed through Regulatory Applications Hub.

Approved by the General Manager Office of the Space Regulator.

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1. Introduction

1.1 About the Space (Launches and Returns) Act 2018

Australia is a founding member of the Committee on the Peaceful Uses of Outer Space and is party to the United Nations space treaties. Australia is committed to ensuring a safe, stable and sustainable outer space environment by building a culture of safety and sustainability within the Australian space sector.

The <u>Space (Launches and Returns) Act 2018</u> (the Act) sets out a regime for the regulation of civil space-related activities in Australia or by Australians overseas. The objects of the Act include seeking to ensure a reasonable balance is achieved between:

- the removal of barriers to participation in space activities and the encouragement of innovation and entrepreneurship in the space industry
- the safety of space activities, and the risk of damage to persons or property as a result of space activities

The Act also implements certain Australian obligations under the United Nations space treaties.

The Act includes powers for the Minister to make rules by legislative instrument. The rules support effective operation of the Act. They are intended to provide clear information and a streamlined process relevant to the approval of an activity under the Act. There are currently three legislative instruments setting out rules under the Act (collectively the Rules):

- the <u>Space (Launches and Returns) (General) Rules 2019</u> (the General Rules) provides detail on the application requirements and additional criteria for approvals under the Act (other than Australian high power rocket permits)
- the <u>Space (Launches and Returns) (High Power Rocket) Rules 2019</u> (the High Power Rocket Rules) provides detail on the application requirements and additional criteria for approval of Australian high power rocket permits
- the <u>Space (Launches and Returns) (Insurance) Rules 2019</u> (the Insurance Rules) provides detail relating to insurance and financial requirements applicable to certain approvals under the Act.

Other relevant documents referred to by the Rules are the <u>Flight Safety Code</u> and the Maximum Probable Loss Methodology (<u>MPL Methodology</u>).

1.2 About these guidelines

These guidelines explain the application and assessment process for an individual, company or organisation to be approved by the Minister (or delegate) as a suitably qualified expert (SQE).

There are other legislative provisions requiring persons with suitable qualifications and experience to review environmental and cybersecurity matters. These functions are not part of the SQE, are not approved by the Minister and are not discussed further in these guidelines.

These guidelines should be read in conjunction with the Act, the General Rules and the High Power Rocket Rules. Guidelines do not exclude, limit or replace the requirements of the Act, General Rules and High Power Rocket Rules. If there is any ambiguity or inconsistency, the Act, General Rules and/or High Power Rocket Rules have precedence over guidelines.

1.3 Role of the applicant

An applicant (you/your) is responsible for applying for SQE approval where required, and where approved as an SQE, for meeting all legislative obligations that apply to an SQE.

1.4 Role of the Australian Space Agency

The Australian Space Agency (we/us/the Agency) is a division of the Department of Industry, Science and Resources (the Department). The Department, through the Agency and its Office of the Space Regulator, is responsible for administering the Act and associated Rules, and publishes information to assist applicants navigate application and assessment processes for their activities.

1.5 Role of the Minister

The Minister makes the decision whether to approve an SQE, taking into account advice from the Agency. Information provided in accordance with these guidelines will help inform the Agency's advice to the Minister (See <u>2.3 Supporting information for approving an SQE</u>).

The Minister may delegate the power to approve an SQE to officers in the Department.

2. Suitably qualified expert overview

2.1 The purpose of an SQE

An SQE is approved by the Minister to perform flight safety assurance functions for civil launch and return activities carried out from Australia. These functions give assurance the launch and/or return activity falls within Australian flight safety standards.

An SQE may be an individual, company or organisation.

2.2 Functions of an SQE

The functions of a Minister-approved SQE are in the following subordinate legislation:

Space (Launches and Returns) (General) Rules 2019 (the General Rules)¹:

- For an Australian launch permit application:
 - perform a risk hazard analysis (RHA) for each launch and any connected return (s 52)
 - provide written confirmation that the launch or launches, the operation of the launch vehicle on the flight path and any connected return will fall within the launch safety standards if carried out in accordance with the flight safety plan (s 53)
 - should a permit be granted, confirm the RHA continues to fall within the launch safety standards of the Flight Safety Code if there are any changes to the assumptions and data used in the RHA (s 37)
- For a return authorisation application²:
 - perform an RHA for each return (s 98)
 - provide written confirmation that the return or series of returns will be in accordance with the Flight Safety Code if carried out in accordance with the return safety plan (s 99)

Space (Launches and Returns) (High Power Rocket) Rules 2019 (the High Power Rocket Rules)³:

• provide written confirmation that a launch will fall within the launch safety standards if carried out in accordance with the flight safety plan (s 26).

SQE functions are distinct from individuals, companies or organisations with suitable qualifications and experience who provide a written assessment of the adequacy of an environmental plan or cybersecurity strategy.

2.3 Supporting information for approving an SQE

To establish that you are a suitably qualified expert, you should provide the Agency with sufficient information to demonstrate you hold the requisite:

- *engineering knowledge* in the launch of space objects (including from aircraft), launch of high power rockets, and/or return of space objects, or similar activities
- computational analysis capability to calculate risk in accordance with the Flight Safety Code
- processes to identify, quantify and evaluate risk in accordance with the Flight Safety Code.

¹ Part 3 and Part 5 of the General Rules

² An SQE is not required for an 'overseas payload return application', as defined in s 4 of the General Rules.

³ Part 3 of the High Power Rocket Rules

This information will help support the Agency's advice to the Minister that you are a suitably qualified expert.

Where an applicant for an SQE approval is a related party of the proponent of the space activity, such as an employee, you will need to provide evidence that SQE functions are *sufficiently isolated from operational pressures* to avoid compromise.

3. Application and assessment process

3.1 Preparing an application

Before applying you should read and understand these guidelines.

You should then complete the Suitably Qualified Expert – Key Personnel Summary and Suitably Qualified Expert - Application cover page found in the <u>Appendix</u>, and provide supporting materials outlined in section <u>4. Supporting information</u>.

Your application must be made in writing and in English. If a document is not in English, your application must also include an English language translation.

Our assessment is evidence-based. You should include materials to support your claims. Supporting materials should be robust, sufficiently detailed and appropriate for the scope and complexity of your application.

We provide guidance on the information and documents you must submit. It is, however, your responsibility to obtain the supporting information required in your application.

Provision of information as set out in these guidelines, and provision of guidance by the Agency in relation to the preparation of your application, does not guarantee that the Minister will decide to grant SQE approval.

You may contact us during the assessment period if you need to make amendments to your application, for example if information becomes outdated or incorrect. This ensures the Minister's consideration is based on current and accurate information.

3.2 Application fees

There are no application fees for an SQE assessment.

3.3 Submitting an application

To apply for SQE approval you apply directly to the Office of the Space Regulator.

You submit your application and all supporting documents through the Regulatory Applications Hub. If you have any issues submitting your application, contact us for guidance (see <u>6. Contacting us</u>).

An application form can be found on our <u>website</u>.

3.4 Application process

There are four steps in the application process:

Steps in the application process:		
1. Regulatory Applications Hub	You create an account in the Regulatory Applications Hub (if you don't already have an account) and initiate a New Application.	
	You will be asked to provide details about yourself, your organisation and the type of permit, licence or authorisation you are wanting to apply for.	
	You complete the <i>Suitably Qualified Expert – Key Personnel Summary</i> and <i>Suitably Qualified Expert - Application cover page</i> found in the <u>Appendix</u> , below.	
	You then add these documents, along with your application form, and any other documents you choose to provide at this time, to your corresponding application in the Regulatory Applications Hub.	

Steps in the application process:		
2. Acceptance of complete application	We first check that your application contains sufficient information and evidence as outlined in section <u>4. Supporting information</u> .	
	If your application is considered complete, we will accept the application and commence assessment.	
	If we consider your application incomplete, we will notify you and provide you with feedback. We approach this as an iterative process and understand there may be several iterations until an application is considered complete.	
3. Assessment	We assess your application with consideration to the Supporting Information (see Section <u>4. Supporting information</u>).	
	We then contact you to discuss next steps. Next steps may include a meeting with you.	
	We may request further information or clarification to support our assessment.	
	Once you have provided the required information, we will finalise our assessment and make a recommendation to the Minister (or their delegate).	
4. Decision	The Minister (or delegate) decides whether to approve an SQE, taking into consideration advice from the Agency. The Minister, through the Agency, may request further information or clarification to support their decision.	

3.5 Timing for assessment

We aim to assess an SQE application within 3 months from acceptance of a complete application.

A 'stop-clock' principle applies to the assessment. If in the course of assessing we find key information is missing or inaccurate, or is not at an appropriate level of detail, we will pause the assessment period and recommence on the day that necessary information is provided.

Example: We have completed 15 days of the three-month assessment period and determine that some information is not at an appropriate level of detail to allow assessment. We stop the clock and request the required information. We restart the clock as 'day 16' on the receipt of requested information.

3.6 Keeping us informed

You must notify us and update your application if information becomes outdated or incorrect before the Minister has made a decision about your SQE application. This ensures the Minister's consideration is based on current and accurate information. If you have been granted SQE approval, you must also notify us in writing if there are any changes to the information submitted in your application.

4. Supporting information

We ask you for information about:

- you, your company or organisation as an applicant
- the Australian launch or return activity associated with your SQE application
- your engineering knowledge
- your computational analysis capability
- your processes to identify, quantify and evaluate risk
- your ability to demonstrate isolation from operational pressures (if applicable).

4.1 Information about the applicant

You must provide the following information:

- applicant name
- name, position and contact details of an individual who will act as the primary contact for the application
- Australian Business Number (ABN), if any
- Australian Company Number (ACN), if you are applying as a company registered under the *Corporations Act 2001.*

You must also reference the Australian launch permit, return authorisation or Australian high power rocket permit application associated with the SQE approval sought.

4.2 Engineering knowledge

You, your company or your organisation should demonstrate sufficient engineering knowledge in the launch of space objects (including from aircraft), launch of high power rockets, and/or return of space objects, or similar activities.

Your application should include reference to:

- prior SQE approvals you, your company or your organisation have held and the date those approvals were granted, including any similar approvals issued by other domestic or foreign authorities
- prior permits, licences or authorisations under the Act you, your company or your organisation have been granted and whether those permits, licences or authorisations are still valid
- your experience as relevant to your SQE application, including:
 - launch and/or return RHA development, checking or approval in accordance with Flight Safety Code launch safety standards (or equivalent)
 - o safety risk management of launches and/or returns
 - any other applicable safety risk management experience for similar activities (e.g. aviation risk analysis, ballistic modelling, range safety management)
- initial and ongoing learning and development you have undertaken related to the launch of a space object (e.g. space operations, rocket propulsion, launch vehicle design, space vehicle guidance and control, launch and/or re-entry safety analysis)
- how any gaps you have in engineering knowledge will be addressed (e.g. reach back to areas of expertise or contracted support)
- safety, engineering or quality management system approvals or certifications you, your company or organisation holds. In the absence of any approvals or certifications, details of any standards used to derive your management systems
- your Chartered Professional Engineer status, as assessed by Engineers Australia (CPEng) and registration on the National Engineering Register (NER), if held. In the absence of CPEng, demonstration of how you meet the <u>stage 2 competency standards for professional engineers</u>

• any other professional accreditations or registrations you hold, including those required for performing engineering work in your State or Territory.

4.3 Computational analysis capability

You, your company or your organisation should demonstrate sufficient computational analysis capability to calculate risk in accordance with the Flight Safety Code.

Your application should include:

- the RHA software you will use (name, version) and associated certification details
- how RHA input data will be accessed and verified (e.g. launch vehicle design, launch vehicle failure data, launch vehicle flight safety system design, launch parameters, environmental data, population data and assets with catastrophic potential)
- training and authorisation requirements for the conduct of RHAs (including software training).

4.4 Processes to identify, quantify and evaluate risk

You, your company or your organisation should demonstrate sufficient processes to identify, quantify and evaluate risk.

Your application should include:

- how your processes comply with the Flight Safety Code, with consideration to:
 - how trigger debris is determined
 - mechanisms for notifying the Agency in accordance with section 3.4 of the Flight Safety Code (controlled area flight safety standards), with the exception of post-launch or return notifications
 - $\circ \quad$ how the suitability of the flight safety system is assessed
 - how RHA inputs are defined
 - how RHA assumptions are defined and assessed as adequate
 - your RHA methodology, including how software tool/s are utilised to generate RHA outputs
 - o details of your RHA reporting and assessment requirements
- any deviations in your processes from the Flight Safety Code and a demonstration of how your processes meet Flight Safety Code launch safety criteria
- your thresholds for updating the RHA (e.g. launch vehicle modifications, changes to launch conditions, the inclusion of payloads or changes to payloads)
- training and authorisation requirements for checking and approving RHA outputs (including any software training).

4.5 Isolation from operational pressures (if applicable)

If you, your company or your organisation are a related party of the proponent of the space activity (such as an employee or owner), you should demonstrate the ability to act as an SQE in sufficient isolation from operational pressures to avoid compromise.

Your application should include:

- a description of your organisational structure, including chain of command
- duties and responsibilities of each position in the chain of command
- details of mechanisms to check SQE outputs in isolation from operational pressures, with reference to safety risk management processes
- the responsibilities of key staff supporting your SQE activities, including: quality and safety
 management personnel; members involved in the conduct, checking and approval of RHAs; and
 the member/s responsible for providing confirmation to the Agency in accordance with the Act,
 General Rules and/or High Power Rocket Rules. This should demonstrate a clear delineation
 between safety risk management and operational functions.

5. How we use your information

5.1 Confidential information

We collect information:

• to assess applicant suitability for SQE approval.

We will treat the information you give us as confidential if it meets all of the following conditions:

- you clearly identify the information as confidential and explain why we should treat it as confidential at the time you provide the information
- the information is commercially sensitive
- disclosing the information would cause unreasonable harm to you or someone else
- you provide the information with an understanding that it will stay confidential.

Unless the information you provide to us is identified as confidential information, we may share your information with other government agencies or third parties for a relevant Commonwealth purpose such as:

- the administration and assessment of your application
- to ascertain if there is any reason why an SQE approval should not be granted.

We may disclose confidential information to:

- our Commonwealth employees and contractors, to help us to assess your application
- the Auditor-General, Ombudsman or Privacy Commissioner
- the responsible Minister or Assistant Minister
- the Prime Minister
- a House or a Committee of the Australian Parliament

We may also disclose confidential information if:

- we are required or authorised by law to disclose it
- you agree to the information being disclosed, or
- someone other than us has made the confidential information public.

5.2 Personal information

We must treat your personal information according to the <u>Australian Privacy Principles</u> (APPs) and the <u>Privacy Act 1988</u> (Cth). This includes letting you know:

- what personal information we collect
- why we collect your personal information
- to whom we give your personal information.

You can read the Privacy Policy on the Department's website for more information on:

- what is personal information
- how we collect, use, disclose and store your personal information
- how you can access and correct your personal information.

5.3 Freedom of information

All documents in the possession of the Australian Government are subject to the <u>Freedom of</u> <u>Information Act 1982</u> (Cth) (FOI Act). The purpose of the FOI Act is to give members of the public rights of access to information held by the Australian Government and its entities. Under the FOI Act, members of the public can seek access to documents held by the Australian Government. This right of access is limited only by the exceptions and exemptions necessary to protect essential public interests and private and business affairs of persons in respect of whom the information relates.

6. Contacting us

We encourage you to contact us for further information or clarification.

Email	regulation@space.gov.au	
Phone	1800 487 182 (within Australia)	
	+61 2 6276 1166 (outside Australia)	
Head office:	Lot 14, McEwin Building, North Terrace, Adelaide, SA 5000	
Post:	Office of the Space Regulator	
	Australian Space Agency	
	GPO Box 2013	
	Canberra ACT 2601	

7. Glossary

The following are terms used in these Guidelines with a particular meaning, generally defined in the Act or the General Rules.

Term	Definition
Act	The <u>Space (Launches and Returns) Act 2018</u>
Australian launch permit	An Australian launch permit authorises the launch of one or more space objects, or a series of launches of space objects, from a specified launch facility in Australia, a specified Australian aircraft that is in flight or a specified foreign aircraft that is in the airspace over Australian territory.
	A launch permit may also authorise one or more space objects to be returned, in connection with the launch or launches, to a specified place or area in Australia.
Australian Space Agency	A division of the Department. The Agency, through the Office of the Space Regulator, is responsible for administering the Act, Rules and related framework.
Department	The Department of Industry, Science and Resources.
Flight Safety Code	 The <u>Flight Safety Code</u> provides: the methodology to assess that certain launch and return
	 activities are safe under the Act and associated legislative instruments a quantitative approach to ensuring that the risks associated with certain civil space and high power rocket activities in Australia are as low as reasonably practicable methods through risk hazard analysis to identify potential hazards during launches or returns that may cause harm to public health and safety, analyse the risks associated with these hazards, and develop measures to minimise those risks and ensure that they remain below the established launch safety standards.
General Rules	The Space (Launches and Returns) (General) Rules 2019
High power rocket	An object of a kind prescribed by the <i>Space (Launches and Returns)</i> (High Power Rocket) Rules 2019; that is:
	(a) it is a rocket propelled by a motor or motors with a combined total impulse greater than 889,600 Newton seconds; or
	(b) it is a rocket propelled by a motor or motors with a combined total impulse greater than 40,960 Newton seconds and is fitted with a system or systems that allow active control of its trajectory
	The rocket must not exceed an altitude of 100km above mean sea level.
High Power Rocket Rules	The Space (Launches and Returns) (High Power Rocket) Rules 2019
Insurance Rules	The Space (Launches and Returns) (Insurance) Rules 2019

Term	Definition	
Maximum Probable Loss (MPL) Methodology	The <u>MPL Methodology</u> sets out the method that can be used to calculate the maximum probable loss that might occur due to certain space activities. You can use the methodology to determine the insured amount defined in the Act and specified in the Insurance Rules.	
Minister	The Commonwealth Minister responsible for <u>Space (Launches and</u> <u>Returns) Act 2018</u> .	
Personal information	 Has the same meaning as in the <i>Privacy Act 1988</i> (Cth) which is: Information or an opinion about an identified individual, or an individual who is reasonably identifiable: a. whether the information or opinion is true or not; and b. whether the information or opinion is recorded in a material form or not. 	
Risk Hazard Analysis	The overall process for identifying hazards, assessing risks, controlling risks and reviewing control measures.	
Space object	 The meaning is defined in the <u>Space (Launches and Returns) Act 2018</u>: an object the whole or a part of which is to go into or come back from an area beyond the distance of 100km above mean sea level; or any part of such an object, even if the part is to go only some of the way towards or back from an area beyond the distance of 100km above mean sea level. 	

Appendix

Suitably Qualified Expert – Key Personnel Summary

Use the below table to help detail the skills, expertise and experience of each member required to meet SQE responsibilities, with consideration to the application requirements:

Name		Position		
Role in SQE work:				
Category (Flight Safety Code criteria)	Skills (learned abilities that may be demonstrated through qualifications and training)	Expertise (knowledge in a particular field)	Experience (practical contact with the requirements)	
Engineering knowledge	 [Relevant qualifications and training to the category] 	 [Expertise relevant to the category – for example a particular field of interest or knowledge that has been recognised; involvement in committees, standards development or working groups; internal or external representation of company, leadership positions] 	 [Experience relevant to the category – for example relevant projects and involvement] 	
Computational analysis capability	•	•	•	
Ability to identify, quantify and evaluate risk	•	•	•	

Suitably Qualified Expert - Application cover page

Office of the Space Regulator Australian Space Agency GPO Box 2013 Canberra ACT 2601

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To whom it may concern,

Please find attached my application for approval as a Suitably Qualified Expert. In support of my application I include the following documents:

- Document 1 Suitably Qualified Expert Key Personnel Summary
- Document 2 –
- Document 3 –
- Document 4 –

I, [name] have read this application and understand that the *Space (Launches and Returns) Act 2018, Space (Launches and Returns) (General) Rules 2019* and *Space (Launches and Returns) (High Power Rocket) Rules 2019* apply to this application.

- 1. I understand my obligations under these laws
- 2. I declare that the information contained in this application together with any statement provided is, to the best of my knowledge, accurate, complete and not misleading and that I understand that giving of false or misleading information is a serious offence under the *Criminal Code Act 1995* (Cth)
- 3. I agree to all of the above declarations and confirm all of the above statements to be true. By including my name in this application it is deemed to be my signature for the purpose of this application

Signature:

Name

Date

Organisation/Company