



Australian Government

ARPANSA Regulatory Expectations for a Siting Licence Application

Agenda

Expected Licence Application Documents

Regulatory Assessment

Public Consultation

Nuclear Safety Committee Review

Decision Making and Example of a Licence

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Expectations – Licence Application Documentation

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Application for Licences – Required key documents

- **Application Form** signed by an appropriate head of Commonwealth Entity
- **Plans and Arrangements** (Safety, Environment, Radiation Protection, Waste, Security, Emergency, Effective Control)
- **Safety Analysis Report** and Supporting Safety Assessment
- **Site Characteristic and Evaluation Report**
- **Baseline Survey Results**
- **Reference Accident Report** to inform the Emergency Planning Category
- **For ARPANSA Public Consultation** – a simplified overview document and copies of redacted application documents as applicable.
- **DECCEW** - Evidence of application of referral under the EPBC Act and any required Environmental Impact Statement

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Part 5 Licences
Division 3 Applications for licences
Section 47

Column 1 Act to be authorised by licence	Column 2 Information or documents CEO may ask for
1 Preparing a site for a controlled facility	(a) detailed site evaluation establishing the suitability of the site for the facility; (b) the characteristics of the site, including the extent to which the site may be affected by natural and human events; (c) any environmental impact statement (however described) requested or required by a Commonwealth, State, Territory or local government agency in relation to the site or the facility, and the outcome of the environmental assessment
2 Constructing a controlled facility	(a) the design of the facility, including ways in which the design deals with the physical and environmental characteristics of the site; (b) any fundamental difficulties that will need to be resolved before any facility licence relating to the facility is issued; (c) the construction plan and schedule; (e) the arrangements for testing and commissioning safety-related items
3 Having possession or control of a controlled facility	(a) arrangements for maintaining criticality safety during loading, moving or storing nuclear fuel and other fissile materials at the facility; (b) arrangements for safe storage of controlled material and maintaining the facility
4 Operating a controlled facility	(a) description of the structures, components, systems and equipment of the facility as they have been constructed; (c) operational limits and conditions of the facility; (d) arrangements for commissioning the facility; (e) arrangements for operating the facility; (f) results of a field exercise to respond to a scenario that involves an emergency and has been agreed with the CEO
5 Decommissioning a controlled facility	Schedule for decommissioning the facility
6 Abandoning a controlled facility	(a) results of decommissioning activities at the facility; (b) details of any environmental monitoring program proposed for the site of the facility

(3) The CEO may ask an applicant for a facility licence authorising dealing with controlled apparatus or controlled material to give the CEO any information required for the purposes of section 47.

The Regulatory Assessment

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Siting Licence Application – General Expectations

Prime Responsibility for Safety – IAEA SF-1 Principle 1

The prime responsibility for safety must rest with the person or organisation responsible for facilities and activities that give rise to the radiation risk. We avoid instruction and prescriptive guidance.

Evidence Based Regulation

We review evidence of compliance and conformance. Wherever possible we avoid professional judgement, and it carries less weight. Evidence must be substantiated (defensible).

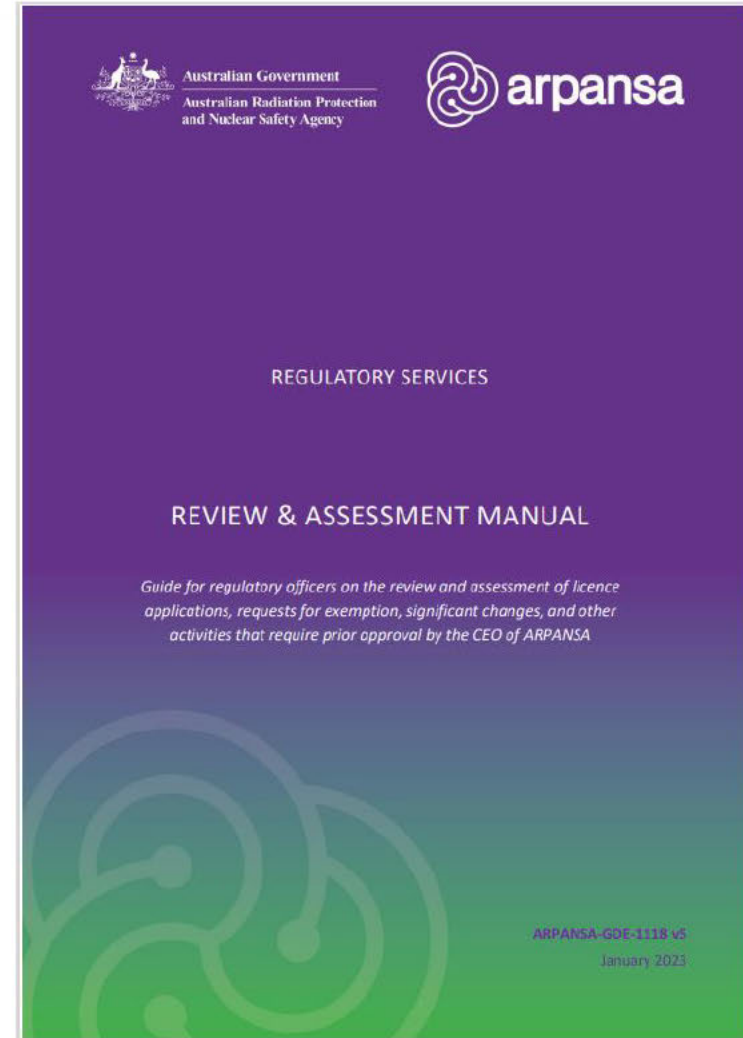
Sufficient Detail must be provided at siting licence stage -on the safety and security aspects of subsequent stages, to allow the CEO to make an informed decision. Therefore, the siting licence ***must consider*** risks from future Nuclear Submarines

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Licence Application Assessment

The application documents demonstrates that the activities comply with/are in line with applicable:

- Australian Radiation Protection Series Principles, Requirements & Guidance
- IAEA GSR's + supporting guidance
- IAEA SSR's + supporting guidance
- ISO standards
- Industry practice including other regulatory standards (e.g. NuREG, UK ONR SAPs, IEEE)



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Safety/Security Assessments – What we look for



Completeness

- Is the application complete, objective and understandable? (Regs s46)
- Does the SAR include evidence or good referencing to evidence?
- Are the safety objectives specified and appropriate?
- Are operational limits and conditions (OLCs)/critical controls specified or at least considered at the siting stage



Safety and Security Management

- Are the plans and arrangements (P&A) appropriate for the project (cradle to grave)
- Are the P&A a good internal system (rather than written for the regulator)
- We are interested in the P&A as they relate when the radiation and nuclear hazard is present rather than WHS safety of construction

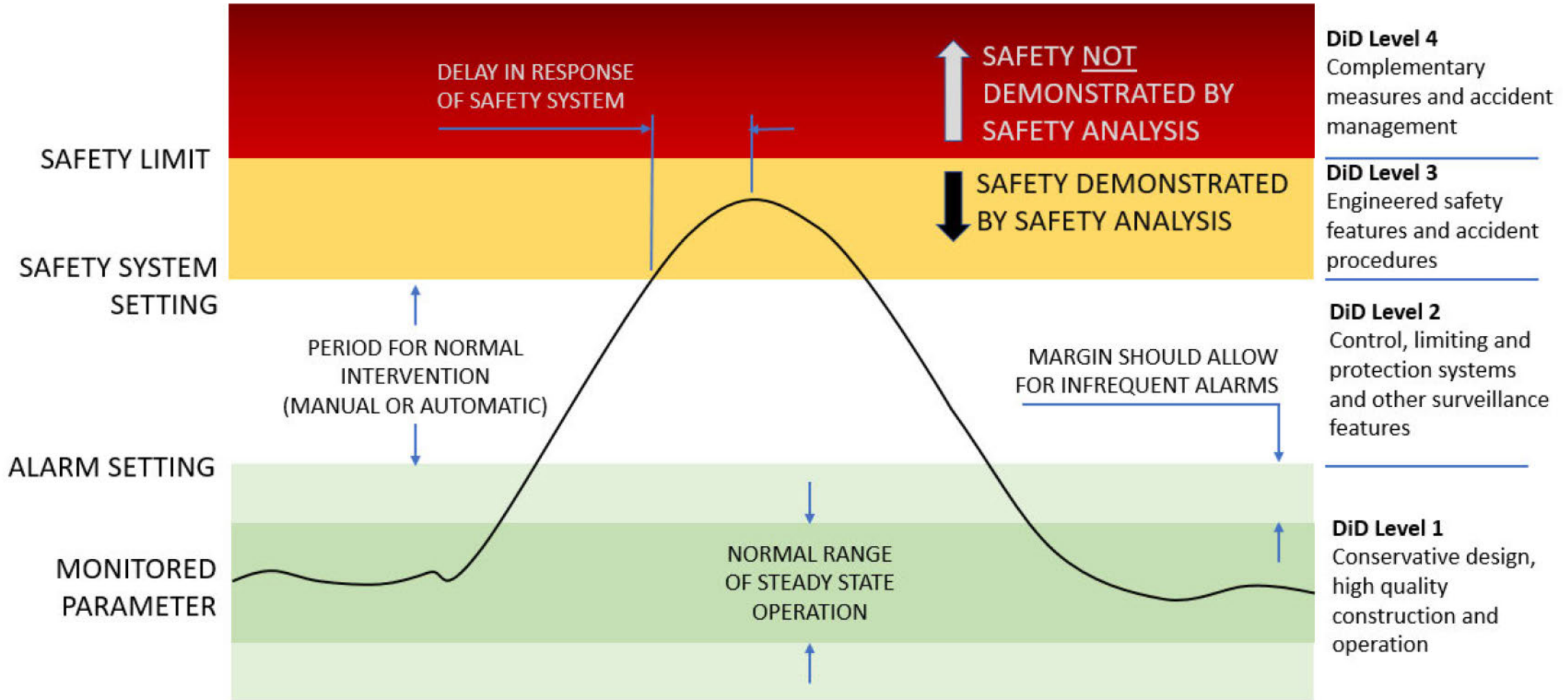
Assessed against **ARPANSA SAR Guide**

SAR is produced by the operator which details the site and facility, describes any hazards and risks associated with the facility, how the facility will be used and managed, and the controls that must be in place to mitigate the risks.

Key criteria – the following should be considered in the SAR

- Design principles (e.g. nuclear safety, radiological safety etc.)
- All defence-in-depth levels
- **safety classification** of items important for safety and application of defence in depth
- Conservative **proven design and engineering** practice hazard analysis and risk assessment
- **accident analysis** (postulated accidents, design extension conditions)
- Emergency **Preparedness Category** of the facility
- Operational limits and conditions (use of postulated initiating events to derive the OLCs taking into account the performance requirements for the items important for safety)
- Feedback of **operational experience** as appropriate

Safety/Security Assessments – What we look for – for future Operating Limits and Conditions



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Safety/Security Assessments – Regs s53 tests

S53(c) – no undue risk

No unnecessary or excessive risk – ALARP

- Requires as detailed review of information provided in the SAR
 - Objectivity of risk assessment
 - Uncertainty of risks
 - Balance between probabilistic and deterministic methods
 - Defence in depth
 - Management system
 - Effectiveness of leadership and management of safety and security culture

Part 5 Licences

Division 5 Deciding whether to issue licence

Section 53

Division 5—Deciding whether to issue licence

53 Issue of facility licence—matters to be taken into account by CEO

For the purposes of subsection 32(3) of the Act, matters (to be taken into account by the CEO in deciding whether to issue a facility licence) include the following:

- (a) whether the application for the licence complies with subsection 46(1) of this instrument;
- (b) whether the applicant for the licence has given the information asked for by the CEO;
- (c) whether the application, together with the information (if any) given as described in paragraph (b), establishes that the conduct proposed to be authorised by the licence can be carried out without undue risk to the health and safety of people, and to the environment;
- (d) whether the applicant has shown that there is a net benefit from carrying out the conduct proposed to be authorised by the licence;
- (e) whether the applicant has shown that the magnitude of individual doses, the number of people exposed and the likelihood that exposure will happen are as low as reasonably achievable, having regard to economic and societal factors;
- (f) whether the applicant has shown a capacity for complying with this instrument and the licence conditions that would be imposed under section 35 of the Act;
- (g) whether the application has been signed by an office holder of the applicant, a person authorised by an office holder of the applicant or, if the licence is for a Commonwealth entity mentioned in section 45 of this instrument, someone described in paragraph (b) of that section;
- (h) if the application is for a facility licence for a nuclear installation—the content of any submissions made by members of the public about the application.

Note: Subsection 32(3) of the Act requires the CEO to take international best practice in relation to radiation protection and nuclear safety into account too.

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Safety/Security Assessments – Regs s53 tests

S53(d) – Net Benefit

The proposed activity does more good, than harm

- A detailed review of information provided in the application and public submissions
- Apply a systematic approach where the net benefit is narrow or not apparent

S53(e) – Optimisation of Doses

- The magnitude of individual doses, the number of people exposed, and the likelihood of exposure should be as low as reasonably achievable (ALARA)
- Evaluation of the exposure situation including any potential exposures
- Selection of a dose constraint or reference level (which should drive good practice)
- Identification of protection options and the selection of the best option
- The effectiveness of the implementation option selected

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Safety/Security Assessments – Regs s53 tests

S53(f) – Capacity to Comply

Refers to capability and likelihood to comply

- Capability – largely the amount and type of resources available
 - Is the organisational structure supportive of safety
 - Is the management systems mature, particularly in regard to Regs s57 and s58
 - The adequacy of staff – capability and capacity
 - The adequacy of the management system to support critical safety functions and ongoing compliance
- The Likelihood of complying
 - For example - Indicators of leadership and management of safety and security including safety and security culture
 - Past compliance record as appropriate

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Public Consultation

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ARPANSA must publish *Notice of intent* to make a declaration published in a nationally circulated newspaper.

We will likely hold a **Public forum** (See our website for the recording of the last virtual one held for the ANSTO ILWCI) [ARPANSA public forum on ANSTO licence application – Intermediate Level Waste Capacity Increase - YouTube](#)

All public submissions will be taken **into account** and responded to in the ARPANSA regulatory reports and statement of reasons.

s22 Wednesday, September 1, 2021

s22 Classifieds s22

Motor Vehicles	To Let & Wanted	Public Notices	GOT A MOTOR VEHICLE
s22	s22	 <p>Australian Government Australian Radiation Protection and Nuclear Safety Agency</p>  <p>Australian Radiation Protection and Nuclear Safety Act 1998</p> <p>Notice of intention to make a decision on a facility licence application</p> <p>Pursuant to subsection 48(2) of the Australian Radiation Protection and Nuclear Safety Regulations 2018 (the Regulations), the CEO of the Australian Radiation Protection and Nuclear Safety Agency intends to make a decision under section 32 of the <i>Australian Radiation Protection and Nuclear Safety Act 1998</i> (the Act) regarding the following application for a facility licence:</p> <p>Application No. A0339 by the Australian Nuclear Science and Technology Organisation to prepare a site for a Nuclear Installation, known as the ANSTO Intermediate Level Waste Capacity Increase (ILWCI) Facility, at Lucas Heights Science and Technology Centre in Menai, New South Wales 2234.</p> <p>The facility is a nuclear installation under section 13 of the Act. The proposed conduct concerning the facility will involve preparing a site for a facility to store Remote Handled Solid Waste (RHSW) from various existing ANSTO activities including spent uranium filter cups generated in the ANSTO Nuclear Medicine Molybdenum-99 (Mo-99) facility. Miscellaneous RHSW including the transformed (processed) liquid waste, generated from the Mo-99 production process, into highly stable immobilised ceramic form will also be stored in this facility.</p> <p>In accordance with section 48 of the Regulations, the CEO of ARPANSA hereby invites submissions from people and bodies about the application. The CEO will take all submissions into account before making a decision on whether or not to grant ANSTO a facility licence to prepare a site for the ILWCI Facility.</p> <p>A copy of ANSTO's facility licence application and the procedure for making submission may be downloaded from the ARPANSA Internet website at: https://www.arpansa.gov.au/have-your-say</p> <p>Submissions must be received by 15 November 2021. Submissions may be posted or e-mailed.</p> <p>Postal Address: The CEO of ARPANSA PO Box 655 MIRANDA NSW 1490</p> <p>Email address: ilwci.submission@arpansa.gov.au</p> <p>Please note that unless a submission is clearly marked as "confidential" it (or part of it) may be published on ARPANSA's website.</p>	s22

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Nuclear Safety Committee Review

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Nuclear Safety Committee is required under the ARPANSA Act

Role of the **Nuclear Safety Committee** is to advise the CEO on matters relating to nuclear safety and the safety of controlled facilities, including developing and assessing the effectiveness of standards, codes, practices and procedures.

NSC will advise on whether they **support a decision** made by the CEO on the licence



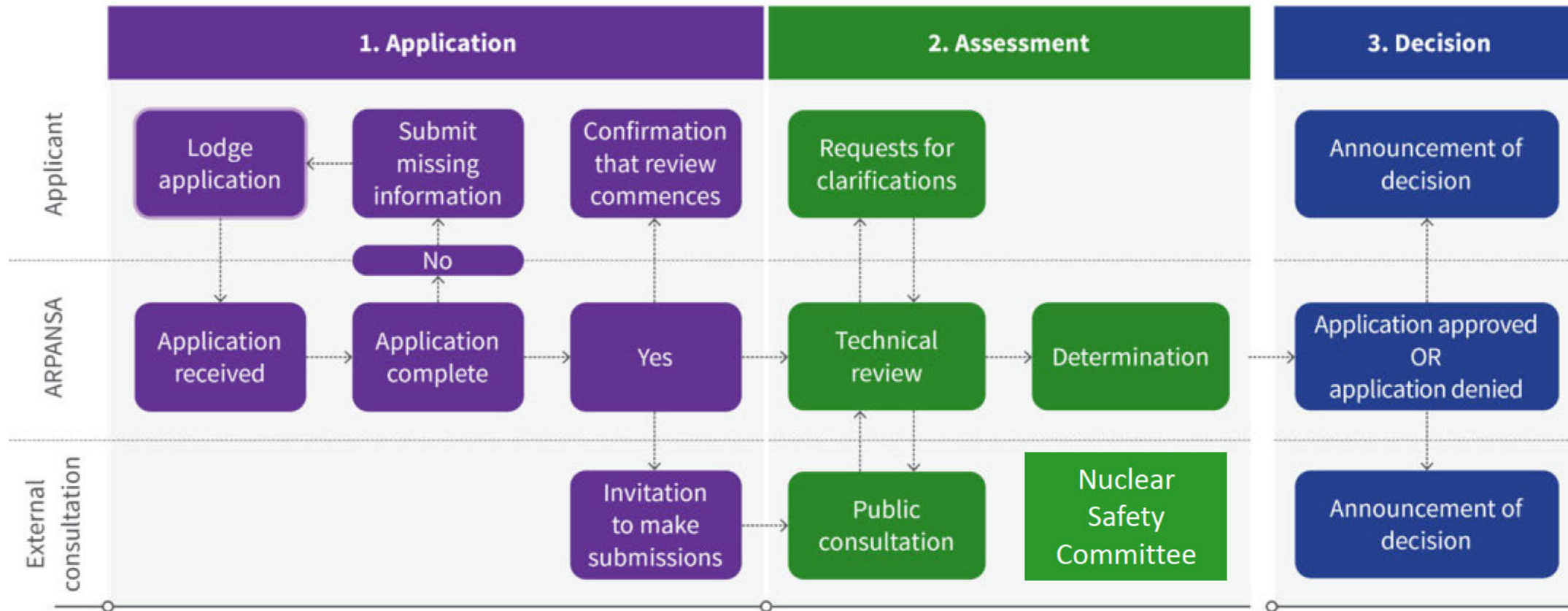
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Decision Making and Example of a Licence

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ARPANSA Regulatory Assessment Process for a licence application



Note other approvals are required under the Environmental Protection and Biodiversity Act and from ASNO


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Safety/Security Assessments – Decision making

Level of compliance with the Act and conformance to IBP	ARPANSA Response	Likely Review Outcome
<ul style="list-style-type: none"> All significant compliance met Only non-significant shortfalls with International Best Practise/Best Available Techniques. High confidence in organisational arrangements and leadership 	<ul style="list-style-type: none"> Prepare Regulatory Assessment Report (RAR) Identify licence conditions and special oversight arrangements (e.g. hold points) Identify areas for improvement (AFI) AFI's are not addressed 	<p>Recommend Approval</p>
<ul style="list-style-type: none"> Widespread inadequacies in SAR Insufficient information to meet Reg s53 tests Falls short of established standards or practices for nuclear safety and radiation protection The applicant has not delivered in commitments or advice given 	<ul style="list-style-type: none"> Provide feedback highlighting examples of shortfalls. Provide opportunity to withdrawal application Prepare Regulatory Assessment Report highlighting strengths and weaknesses in the application 	<p>Recommend declining</p>

The Siting Licence and Licence Conditions – Example of a recent Siting Licence for a Waste Store

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Australian Radiation Protection
and Nuclear Safety Agency

 arpansa

F0339

Facility Licence

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Thank you

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