EXPOSURE DRAFT

Australian Naval Nuclear Power Safety Regulations 2025

I, the Honourable Sam Mostyn AC, Governor-General of the Commonwealth of Australia, acting with the advice of the Federal Executive Council, make the following regulations.

Dated 2025

Sam Mostyn AC
Governor-General

By Her Excellency's Command

Richard Marles **[DRAFT ONLY—NOT FOR SIGNATURE]**
Minister for Defence

Contents

Part 1—Introduction

Division 1—Preliminary

1 Name

This instrument is the *Australian Naval Nuclear Power Safety Regulations 2025*.

2 Commencement

(1) Each provision of this instrument specified in column 1 of the table commences, or is taken to have commenced, in accordance with column 2 of the table. Any other statement in column 2 has effect according to its terms.

Commencement information

Column 1	Column 2	Column 3
Provisions	**Commencement**	**Date/Details**
1. The whole of this instrument	The later of: (a) the day after this instrument is registered; and (b) the day on which the *Australian Naval Nuclear Power Safety Act 2024* commences.	

Note: This table relates only to the provisions of this instrument as originally made. It will not be amended to deal with any later amendments of this instrument.

(2) Any information in column 3 of the table is not part of this instrument. Information may be inserted in this column, or information in it may be edited, in any published version of this instrument.

3 Authority

This instrument is made under the *Australian Naval Nuclear Power Safety Act 2024*.

4 Definitions

Note: A number of expressions used in this instrument are defined in the Act, including the following:
(a) nuclear safety;
(b) nuclear safety incident.

In this instrument:

absorbed dose has the meaning given by subsection 7(3).

Act means the *Australian Naval Nuclear Power Safety Act 2024*.

activity, of a nuclide, has the meaning given by subsection 5(2).

ANNPS Licence Applications Code means the *ANNPS Licence Applications Code 2025*, as published by the Director-General on *[date TBC]* 2025.

Note: The Code could in 2025 be viewed on the Regulator's website ([*URL TBC*]).

ANNPS Licence Conditions Code means the *ANNPS Licence Conditions Code 2025*, as published by the Director-General on *[date TBC]* 2025.

Note: The Code could in 2025 be viewed on the Regulator's website ([*URL TBC*]).

AS/NZS IEC 60825.1:2014 means the Australian/New Zealand Standard AS/NZS IEC 60825.1:2014 *Safety of laser products, Part 1: Equipment classification and requirements*, published jointly by, or on behalf of, Standards Australia and Standards New Zealand, as existing on 4 April 2025.

AS/NZS IEC 62471:2011 means the Australian/New Zealand Standard AS/NZS IEC 62471:2011 *Photobiological safety of lamps and lamp systems*, published jointly by, or on behalf of, Standards Australia and Standards New Zealand, as existing on 4 April 2025.

Australian National Radiation Dose Register means the register established by the Australian Radiation Protection and Nuclear Safety Agency to store and maintain radiation dose records of occupationally exposed persons.

clearance material means an inventory or waste package of NNP material for which the derived activity value is the following:

(a) if the inventory or waste package of the NNP material is in solid form—equal to or less than 10;

(b) if the inventory or waste package of the NNP material is in liquid form or in the form of gas or vapour—equal to or less than 1.

derived activity value, for an inventory or waste package of NNP material, has the meaning given by subsection 5(1).

dose:

(a) means a measure of energy deposited by radiation in a target; and

(b) includes an absorbed dose, equivalent dose and effective dose.

effective dose has the meaning given by subsection 7(1).

emergency worker has a meaning affected by subsection 72(7).

equivalent dose has the meaning given by subsection 7(2).

exposed, in relation to a person, means the person being exposed to radiation.

occupationally exposed person has the meaning given by paragraph 75(1)(a).

possession or control period, in relation to an NNP facility, means the period during which the relevant licence holder:

(a) is authorised to possess or control the facility (or both); and

(b) is not authorised to conduct any other facility activity in relation to the facility.

previous licensing stage has the meaning given by paragraph 23(3)(e).

reference incident means a hypothetical scenario for a severe accident that results in the release of radionuclides into the environment.

Note: A reference incident would, if it occurred, be a nuclear safety incident: see subsection 21(2) of the Act.

sealed NNP material means NNP material permanently contained in a capsule, or closely bound in a solid form, that is strong enough to be leak-tight for:

(a) the intended use of the NNP material; and

(b) any reasonably foreseeable abnormal events likely to affect the NNP material.

serious civil penalty provision has the meaning given by subsection 64(7).

serious offence has the meaning given by subsection 64(6).

transitional licence means a licence that has effect as if it were an Australian naval nuclear power safety licence issued under the Act due to the *Australian Naval Nuclear Power Safety (Transitional Provisions) Act 2024*.

unsealed NNP material means NNP material that is not sealed NNP material.

waste package means the waste form of NNP material and its container as prepared for handling, transport, storage or disposal.

5 Meaning of *derived activity value* and *activity*

(1) The ***derived activity value*** for an inventory or waste package of NNP material is worked out as follows:

(a) first, divide the activity of each nuclide in the NNP material by the activity value specified in clause 1 of Schedule 2 for the nuclide;

(b) secondly, if there is more than one nuclide in the NNP material, total the result of paragraph (a) for each nuclide.

Note: Section 6 affects how the activity of a parent nuclide mentioned in clause 2 of Schedule 2 (or marked [a] in clause 1 of Schedule 2) is worked out, by providing for inclusion of the activity of certain progeny nuclides that are included in secular equilibrium with the parent nuclide.

(2) The ***activity*** of a nuclide is the rate at which nuclear transformations of the nuclide occur, worked out in accordance with the definition of ***activity*** in the *IAEA Nuclear Safety and Security Glossary, Terminology Used in Nuclear Safety, Nuclear Security, Radiation Protection and Emergency Preparedness and Response, 2022 (Interim) Edition*, published by the International Atomic Energy Agency, as existing on 5 June 2025.

Note: The Glossary could in 2025 be viewed on the website of the International Atomic Energy Agency (https://www.iaea.org).

6 Parent nuclides and progeny nuclides included in secular equilibrium

(1) For the purposes of this instrument, in determining the activity of a parent nuclide mentioned in an item in the table in clause 2 of Schedule 2, include the activity of any progeny nuclide mentioned in that item that is included in secular equilibrium with the parent nuclide.

Note: Parent nuclides are also marked [a] in the table in clause 1 of Schedule 2.

(2) Except for the purposes of determining under subsection (1) the activity of a parent nuclide mentioned in an item in the table in clause 2 of Schedule 2, the activity of a progeny nuclide mentioned in an item in that table is taken to be nil when included in secular equilibrium with a parent nuclide mentioned in that item.

7 Meaning of *effective dose, equivalent dose* and *absorbed dose*

(1) ***Effective dose*** is a measure of dose that takes into account both the type of radiation involved and the radiological sensitivities of the organs and tissues irradiated. The effective dose is to be worked out in the same way as it would be worked out under the *Australian Radiation Protection and Nuclear Safety Regulations 2018*.

(2) ***Equivalent dose*** is a measure of dose in organs and tissues that takes into account the type of radiation involved. The equivalent dose is to be worked out in the same way as it would be worked out under the *Australian Radiation Protection and Nuclear Safety Regulations 2018*.

(3) The ***absorbed dose*** is the energy absorbed per unit mass by matter from ionising radiation that impinges upon it. The absorbed dose is to be worked out in the same way as it would be worked out under the *Australian Radiation Protection and Nuclear Safety Regulations 2018*.

Division 2—Core provisions

8 Stirling designated zone

For the purposes of subsection 10(3) of the Act, the Stirling designated zone (the area known as HMAS *Stirling* at Garden Island in Western Australia) is the area indicated by the shaded area on the aerial photographic map in clause 1 of Schedule 1.

9 Osborne designated zone

For the purposes of subsection 10(4) of the Act, the Osborne designated zone (the area known as the Osborne Naval Shipyard in South Australia) is the area indicated by the shaded area on the aerial photographic map in clause 2 of Schedule 1.

10 Activity level for radioactive waste management facility to be an NNP facility

For the purposes of subparagraph 12(d)(ii) of the Act, the activity level for a radioactive waste management facility that contains, or is designed to contain, NNP material that is radioactive waste from an AUKUS submarine is as follows:

(a) if the inventory or a waste package of the NNP material that the facility contains, or is designed to contain, is in solid form—the level at which the derived activity value for the inventory or waste package of the NNP material is 10;

(b) if the inventory or a waste package of the NNP material that the facility contains, or is designed to contain, is in liquid form or in the form of gas or vapour—the level at which the derived activity value for the inventory or waste package of the NNP material is 1.

Note: The radioactive waste management facility must be a facility for managing, storing or disposing of radioactive waste from an AUKUS submarine: see subparagraph 12(d)(i) of the Act. If the activity of the facility is greater than the activity level prescribed for the facility, the facility is an NNP facility: see paragraph 12(d) of the Act.

11 Non-ionising radiation-producing equipment or plant that is NNP equipment or plant

For the purposes of subparagraph 15(2)(c)(ii) of the Act, the following equipment or plant that is from, or for use on, an AUKUS submarine and that produces harmful non-ionising radiation when energised is prescribed:

(a) equipment that interacts with, or is for direct use on, naval nuclear propulsion plant (of a kind covered by paragraph 15(2)(a) or (b) of the Act) and that:

(i) is designated as tooling in a support system specification for an AUKUS submarine; or

(ii) is industrial equipment (including measurement equipment) for the purposes of combat capability, maintenance, or other support activities;

(b) any part of naval nuclear propulsion plant (of a kind covered by paragraph 15(2)(a) or (b) of the Act) that is detached from the plant.

Part 2—Making an application for licence authorising facility activity or material activity

Division 1—Preliminary

12 Simplified outline of this Part

To conduct a regulated activity, a person generally must be authorised by an Australian naval nuclear power safety licence and comply with the conditions of the licence (see sections 19, 23 and 25 of the Act for the offences and civil penalty provisions relating to this).

A Commonwealth-related person may apply for a licence (see section 28 of the Act). The application must meet the requirements in section 30 of the Act, which include that the application must:

(a) specify certain matters, such as the regulated activity to be authorised by the licence and the persons, or class of persons, to be authorised to conduct the regulated activity; and

(b) contain the information, and be accompanied by the documents, prescribed by the regulations; and

(c) be given to the Regulator in the manner prescribed by the regulations.

Division 2 of this Part prescribes information and documents for applications for a licence to authorise a facility activity or a material activity. Such information and documents may:

(a) be required for all such applications (this is set out in Subdivision B); or

(b) only be required for applications relating to facility activities or a particular kind of facility activity (this is set out in Subdivision C); or

(c) only be required for applications relating to material activities or a particular kind of material activity (this is set out in Subdivision D).

If information or documents are required in relation to a particular matter, there may be:

(a) a related requirement in Part 3 for the Regulator to be satisfied of, or take into account, the matter; or

(b) a related licence condition in Part 4.

Division 3 of this Part prescribes the manner in which the application must be given to the Regulator.

At any time before the Regulator has made a decision on the application, the Regulator may, under section 30A of the Act, request further information of a kind prescribed by Division 4 of this Part from the applicant in connection with the application.

13 Application of this Part

This Part does not apply to an application for a licence to authorise a submarine activity.

Note: For the meaning of ***submarine activity***, see section 13 of the Act.

Division 2—Information and documents to be provided with application

Subdivision A—Purpose of this Division

14 Information and documents to be provided with application relating to facility activity or material activity

For the purposes of paragraphs 30(1)(j) and (k) of the Act:

(a) the information to be contained in an application for a licence to authorise a facility activity or material activity; and

(b) the documents to accompany that application;

are the information and documents that:

(c) are prescribed by this Division as required for an application for a licence to authorise that kind of facility activity or material activity; and

(d) in relation to information or documents prescribed by Subdivision C or D of this Division—comply with the requirements specified in the ANNPS Licence Applications Code in relation to information or documents of that kind.

Note: To issue the licence, the Regulator must take into account whether the information and documents provided under Subdivision C or D of this Division comply with the requirements specified by the Code in relation to information or documents of that kind: see section 41.

Subdivision B—Application relating to any kind of facility activity or material activity

15 General information relating to the regulated activity

For an application for a licence to authorise any kind of facility activity or material activity, the following information and documents are required:

(a) information and documents that describe and document the expertise, training and information that the persons, or class of persons, to be authorised to conduct the regulated activity would have, if the licence is issued, to ensure the nuclear safety of the activity;

(b) information and documents that describe and document all technical authorities or standards addressing measures to ensure, so far as reasonably practicable, nuclear safety that would apply in relation to the conduct of the regulated activity if the licence is issued;

(c) a list of the NNP facilities or proposed NNP facilities that would be involved in the conduct of the activity;

(d) if the activity is a facility activity—details of the types, categories, forms and quantities of any NNP material or NNP equipment or plant that would be, or could be, involved in the conduct of the activity;

(e) if it is reasonably foreseeable that:

(i) any other high risk activities or material would be, or could be, conducted or located in, or near, the designated zone in which the regulated activity would be conducted; and

(ii) those activities or materials could reasonably pose additional risks to the nuclear safety of the regulated activity;

a description of measures proposed to mitigate that additional risk;

(f) an analysis of the radiological consequences to the surrounding environment from a reference incident at the site of the regulated activity;

(g) a description of the proposed arrangements to insure the conduct of the activity;

(h) if a permit would be required under the *Nuclear Non-Proliferation (Safeguards) Act 1987* in relation to the conduct of the activity—the following:

(i) if the permit has been granted—a copy of the permit;

(ii) if an application for the permit has been made but not decided at the time of making the application for the licence—information that demonstrates that an application for the permit has been made;

(iii) if an application for the permit has not been made at the time of making the application for the licence—information indicating when the application for the permit is likely to be made;

(i) if a permit, approval, referral or environmental impact statement would be required under a law of the Commonwealth or a State or Territory for environmental protection in relation to the conduct of the activity:

(i) the permit or the application for the permit; or

(ii) the approval or application for the approval; or

(iii) the referral, the decision on the referral or, if the referral was withdrawn before a decision on the referral was made, information and documents that describe and document the withdrawal of the referral; or

(iv) the environmental impact statement.

Note 1: To issue the licence, the Regulator must be satisfied of certain matters dealt with in this section: see section 40. For example, the Regulator must be satisfied that the conduct of the activity would be adequately and appropriately insured.

Note 2: Paragraph (g) of this section only requires a description of the arrangements. It does not require contracts or full details of particular commercial arrangements to be provided.

16 General conduct of the activity

For an application for a licence to authorise any kind of facility activity or material activity, information and documents that describe and document how the activity would be conducted in accordance with section 52 are required.

Note: The licence, if issued, would be subject to a condition that the regulated activity is conducted in accordance with section 52: see that section.

17 Resources for the safe conduct of the activity

For an application for a licence to authorise any kind of facility activity or material activity, information and documents that describe and document the financial, human and technical resources that the proposed licence holder would have, and would be able to control and maintain, to conduct the activity safely throughout the proposed period of the licence are required.

Note: The licence, if issued, would be subject to a condition that the licence holder have, control and maintain adequate resources for the safe conduct of the activity: see section 53.

18 Office holder with overarching control of activity

For an application for a licence to authorise any kind of facility activity or material activity, details of the office holder of the proposed licence holder that would have overarching organisational, financial and operational control of the conduct of the regulated activity authorised by the licence are required.

Note: The licence, if issued, would be subject to a condition that the licence holder notify the Regulator if the person who is this office holder changes: see section 67.

19 Radiation monitoring boundaries and exclusion zones

For an application for a licence to authorise any kind of facility activity or material activity, the following information and documents are required:

(a) information and documents that describe and document the boundaries proposed to be set for the radiation monitoring of the regulated activity;

(b) information and documents that describe and document the exclusion zone proposed to be set around the boundary of the area in which the regulated activity would be conducted.

Note 1: To issue the licence, the Regulator must be satisfied that the boundaries set for radiation monitoring, and the exclusion zone, would ensure nuclear safety and the exclusion zone would be enforced: see subsections 40(3) and (4).

Note 2: The licence, if issued, would be subject to conditions that radiation monitoring is undertaken within the boundaries in accordance with the radiation protection plan and that the exclusion zone is enforced: see subsections 59(2) and (4).

20 Nuclear safety management system, arrangements and plans for the conduct of the activity

(1) This section applies to an application for a licence to authorise any kind of facility activity or material activity.

(2) The following are required:

(a) information and documents that describe and document the proposed nuclear safety management system for the activity;

(b) information and documents that describe and document the following for the activity:

(i) the proposed arrangements for organisational and human control of the activity;

(ii) the proposed regulatory compliance plan;

(iii) the proposed supply chain management plan;

(iv) the proposed nuclear safety plan;

(v) the proposed radiation protection plan;

(vi) the proposed radioactive waste management plan;

(vii) the proposed security plan;

(viii) the proposed emergency management and response plan;

(ix) the proposed environmental protection plan;

(x) the proposed insolvency plan;

(c) a description of how that system, those arrangements and each of those plans would be implemented, maintained, audited and reviewed if the licence is issued.

Note: The licence, if issued, would be subject to conditions that the licence holder conduct the activity in accordance with the system, arrangements and plans and that the system, arrangements and plans are implemented, maintained, audited and reviewed: see sections 61 and 68.

(3) Information is required that describes how international best practice in relation to nuclear safety that is relevant to naval nuclear propulsion has been considered in the development of the system, arrangements and plans.

21 Records management system

For an application for a licence to authorise any kind of facility activity or material activity, the following information and documents are required:

(a) information and documents that describe and document the proposed records management system for the activity;

(b) a description of how the records management system would be implemented, maintained, audited and reviewed if the licence is issued.

Note: The licence, if issued, would be subject to conditions that records relating to the conduct of the regulated activity are kept in the records management system for the activity and the system must be implemented, maintained, audited and reviewed: see sections 62 and 68.

22 Treatment of clearance material

For an application for a licence to authorise:

(a) a kind of facility activity other than the activity of preparing a site for an NNP facility in a designated zone; or

(b) any kind of material activity;

information and documents are required that describe and document how clearance material from the conduct of the activity will be handled, transported, stored, disposed of or otherwise managed.

Subdivision C—Application relating to a facility activity—additional information and documents

23 Additional information and documents—any kind of facility activity

(1) This section applies to an application for a licence to authorise any kind of facility activity.

(2) Baseline radiological data for the site of the NNP facility, or proposed NNP facility, obtained prior to the siting of the facility is required.

(3) The following are required:

(a) a description of the level of nuclear safety risk posed by the activity proposed to be authorised;

(b) information that demonstrates how the following has been considered in assessing that level of risk:

(i) the hazard level and complexity of the activity;

(ii) the characteristics of the NNP facility, or proposed NNP facility, and its site or proposed site;

(iii) potential risks to persons proposed to be authorised to conduct the activity, to likely occupationally exposed persons, to the public and to the environment;

(iv) any other technical, human or organisational factor relevant to the activity that could pose a reasonably foreseeable risk to nuclear safety;

(c) information that demonstrates that the applicant has considered, in relation to the conduct of the activity, all regulated activities that could reasonably be foreseen to be conducted in relation to the NNP facility, or proposed NNP facility, over its lifetime;

(d) details of the consultation undertaken with stakeholders, Aboriginal and Torres Strait Islander peoples and the public in relation to the activity and the NNP facility or proposed NNP facility;

(e) subject to subsection (4), information and documents that describe and document how all conditions applying to the licence (the ***previous licensing stage***) authorising the most recent previous facility activity in relation to the NNP facility, or proposed NNP facility, have been complied with;

(f) the information or documents specified by the ANNPS Licence Applications Code in relation to applications for a licence to authorise that kind of facility activity.

Note 1: To issue the licence, the Regulator must be satisfied that the applicant has demonstrated that the matters in paragraph (c) have been appropriately considered and that meaningful consultation has been undertaken as described in paragraph (d). The Regulator must also take into account the matters in some of the other provisions in this section: see section 42.

Note 2: The licence, if issued, would be subject to a condition that a current description of the level of nuclear safety risk is maintained: see section 77.

Note 3: For the purposes of paragraph (d), matters in relation to which consultation may need to be undertaken include the development of a plan or safety case for the activity.

Note 4: For the purposes of paragraph (e), this includes conditions specified by the Regulator for the purposes of paragraph 32(1)(c) or subsection 34(2) of the Act. To issue the licence, the Regulator must take the extent of compliance with conditions into account: see paragraph 42(3)(c) of this instrument.

(4) Paragraph (3)(e) does not apply if:

(a) the application is for a licence to authorise a facility activity of preparing a site for an NNP facility in a designated zone; or

(b) the licence authorising the most recent previous facility activity in relation to the NNP facility, or proposed NNP facility, is a transitional licence; or

(c) if the application is for a licence to authorise a facility activity of having possession or control of an NNP facility in a designated zone—a licence

authorising the operation of the facility has been issued under the Act or the *Australian Radiation Protection and Nuclear Safety Act 1998*.

24 Additional information and documents—activity of preparing a site for an NNP facility in a designated zone

(1) This section applies to an application for a licence to authorise a facility activity of preparing a site for an NNP facility (the ***proposed NNP facility***) in a designated zone.

Safety case report (siting)

(2) A safety case report for the siting of the proposed NNP facility that demonstrates the suitability of the site for the life of the facility and the regulated activities intended to be conducted at the facility is required.

Site evaluation

(3) An evaluation of the suitability of the site for the proposed NNP facility is required.

Note: To issue the licence, the Regulator must be satisfied that the site evaluation demonstrates the suitability of the site for the proposed NNP facility: see section 43.

Environmental protection requirements

(4) If the applicant believes that no requirements of the kind referred to in paragraph 15(i) (environmental protection requirements under Commonwealth, State or Territory law) would apply to the conduct of the activity, details of the grounds for that belief are required.

Conceptual design of the proposed NNP facility

(5) A conceptual design of the proposed NNP facility, and its proposed construction and operation, is required.

Plan for preparing the site

(6) Information and documents that describe and document the proposed plan for preparing the site for the proposed NNP facility are required.

Note: The licence, if issued, would be subject to conditions that the licence holder conduct the activity in accordance with the plan and that the plan is implemented, maintained, audited and reviewed: see sections 68 and 79.

Preliminary decommissioning plan

(7) A preliminary decommissioning plan for the proposed NNP facility is required.

Note: To issue the licence, the Regulator must take this plan into account: see subsection 42(3).

25 Additional information and documents—activity of constructing an NNP facility in a designated zone

(1) This section applies to an application for a licence to authorise a facility activity of constructing an NNP facility (the ***proposed NNP facility***) in a designated zone.

Safety case report (construction)

(2) A safety case report for the construction of the proposed NNP facility that demonstrates the suitability of the construction for the life of the facility and the regulated activities intended to be conducted at the facility is required.

Site evaluation

(3) The following are required:
  (a) an evaluation of the suitability of the site for constructing the proposed NNP facility;
  (b) information and documents that:
    (i) describe and document the site works undertaken to enable the construction of the facility; and
    (ii) document that those works are now complete.

Environmental protection requirements

(4) If the applicant believes that no requirements of the kind referred to in paragraph 15(i) (environmental protection requirements under Commonwealth, State or Territory law) would apply to the conduct of the activity, details of the grounds for that belief are required.

Final design of the proposed NNP facility

(5) A final design of the proposed NNP facility and its proposed operation that complies with subsection (6) is required.

(6) The final design must include the arrangements for maintaining nuclear safety of:
  (a) any naval nuclear propulsion plant in the facility that is not on a UK/US submarine; and
  (b) any such plant's interaction with the facility;

including the control of reactivity, the removal of residual heat (cooling) and containment.

Construction plan

(7) Information and documents that describe and document the proposed construction plan for the proposed NNP facility are required.

Note: The licence, if issued, would be subject to conditions that the licence holder conduct the activity in accordance with the plan and that the plan is implemented, maintained, audited and reviewed: see sections 68 and 80.

Preliminary decommissioning plan

(8) A preliminary decommissioning plan for the proposed NNP facility is required.

Note: To issue the licence, the Regulator must take this plan into account: see subsection 42(3).

26 Additional information and documents—activity of having possession or control of an NNP facility in a designated zone

(1) This section applies to an application for a licence to authorise a facility activity of having possession or control of an NNP facility in a designated zone.

Note: If the application is for a licence that authorises both the possession and control of the NNP facility, the information and documents prescribed by this instrument as required for an application authorising possession or control of the facility are required for both the possession and control.

Safety case report (possession or control)

(2) A safety case report for the possession or control of the NNP facility is required.

Construction evaluation

(3) An evaluation of the construction of the NNP facility is required.

Note: To issue the licence, the Regulator must be satisfied that the construction evaluation demonstrates the suitability of the NNP facility for the possession or control: see section 44.

(4) Subsection (3) does not apply if a licence authorising the operation of the NNP facility has been issued under the Act or the *Australian Radiation Protection and Nuclear Safety Act 1998*.

Plan for the possession or control period

(5) Information and documents that describe and document the proposed possession or control period plan for the NNP facility are required.

Note: The licence, if issued, would be subject to conditions that the licence holder conduct the activity in accordance with the plan and that the plan is implemented, maintained, audited and reviewed: see sections 68 and 81.

Preliminary plans

(6) The following are required:

(a) if a licence authorising the operation of the facility has never been issued under the Act or the *Australian Radiation Protection and Nuclear Safety Act 1998*—a preliminary operational plan for the NNP facility;

(b) a preliminary decommissioning plan for the NNP facility;

(c) a preliminary disposal plan for the NNP facility.

Note: To issue the licence, the Regulator must take these preliminary plans into account: see subsection 42(3).

27 Additional information and documents—activity of operating an NNP facility in a designated zone

(1) This section applies to an application for a licence to authorise a facility activity of operating an NNP facility in a designated zone.

Safety case report (operation)

(2) A safety case report for the operation of the NNP facility is required.

Evaluation of operational readiness

(3) The following are required:
  (a) an evaluation of the readiness of the NNP facility for its proposed operation;
  (b) information and documents that describe and document the testing undertaken to confirm readiness.

Note: To issue the licence, the Regulator must be satisfied that the evaluation of operational readiness demonstrates the suitability of the NNP facility for its proposed operation: see subsection 45(2).

Commissioning plan

(4) Information and documents that describe and document the proposed commissioning plan for the NNP facility are required.

Note: The licence, if issued, would be subject to conditions that the licence holder conduct the activity in accordance with the plan and that the plan is implemented, maintained, audited and reviewed: see sections 68 and 82.

Operational plan

(5) Information and documents that describe and document the proposed operational plan for the NNP facility are required.

Note: The licence, if issued, would be subject to conditions that the licence holder conduct the activity in accordance with the plan and that the plan is implemented, maintained, audited and reviewed: see sections 68 and 82.

Field exercise

(6) The results of a field exercise conducted for the purpose of testing the proposed emergency management and response plan for the activity is required.

Note: To issue the licence, the Regulator must take these results into account: see subsection 45(3).

Preliminary plans

(7) The following are required:
  (a) a preliminary decommissioning plan for the NNP facility;
  (b) a preliminary disposal plan for the NNP facility.

Note: To issue the licence, the Regulator must take these preliminary plans into account: see subsection 42(3).

28 Additional information and documents—activity of decommissioning an NNP facility in a designated zone

(1) This section applies to an application for a licence to authorise a facility activity of decommissioning an NNP facility in a designated zone.

Safety case report (decommissioning)

(2) A safety case report for the decommissioning of the NNP facility is required.

Strategy and plan for decommissioning the NNP facility

(3) The following are required:

(a) information and documents that describe and document the proposed decommissioning plan for the NNP facility;

(b) the decommissioning strategy on which the proposed decommissioning plan is based.

Note 1: To issue the licence, the Regulator must take into account the decommissioning strategy: see section 46.

Note 2: The licence, if issued, would be subject to conditions that the licence holder conduct the activity in accordance with the plan and that the plan is implemented, maintained, audited and reviewed: see sections 68 and 83.

Preliminary disposal plan

(4) A preliminary disposal plan for the NNP facility is required.

Note: To issue the licence, the Regulator must take this plan into account: see subsection 42(3).

29 Additional information and documents—activity of disposing of an NNP facility in a designated zone

(1) This section applies to an application for a licence to authorise a facility activity of disposing of an NNP facility in a designated zone.

Safety case report (disposal)

(2) A safety case report for the disposal of the NNP facility is required.

Decommissioning evaluation

(3) An evaluation of the decommissioning of the NNP facility is required.

Note: To issue the licence, the Regulator must be satisfied that the decommissioning evaluation demonstrates the suitability of the NNP facility for disposal: see subsection 47(2).

Disposal plan

(4) Information and documents that describe and document the proposed disposal plan for the NNP facility are required.

Note: The licence, if issued, would be subject to conditions that the licence holder conduct the activity in accordance with the plan and that the plan is implemented, maintained, audited and reviewed: see sections 68 and 84.

Independent assessment

(5) An assessment by a suitably qualified and experienced independent person of whether the proposed disposal plan for the activity would result in any ongoing radiation exposure at the site of the NNP facility being sufficiently low so as not to pose an ongoing hazard to the public or the environment is required.

Note: To issue the licence, the Regulator must take the independent assessment into account: see subsection 47(3).

Subdivision D—Application relating to a material activity—additional information and documents

30 Additional information and documents for any kind of material activity—general

(1) This section applies to an application for a licence to authorise any kind of material activity in a designated zone.

(2) The following information and documents are required:

(a) details of the types, categories, forms and quantities of any NNP material or NNP equipment or plant that would be, or could be, involved in the conduct of the activity;

(b) information and documents that describe and document the proposed arrangements for storing, managing and handling any such NNP material or NNP equipment or plant;

(c) the information or documents specified by the ANNPS Licence Applications Code in relation to applications for a licence to authorise that kind of material activity;

(d) the results of a field exercise conducted for the purpose of testing the proposed emergency management and response plan for the activity.

Note: For the purposes of paragraph (b), the nuclear management system, arrangements and plans required under section 61 also have requirements that relate to storing, managing and handling NNP material or NNP equipment or plant. The licence, if issued, would be subject to conditions that the licence holder store, manage and handle the NNP material or NNP equipment or plant in accordance with the system, arrangements and plans and that the system, arrangements and plans are implemented, maintained, audited and reviewed: see sections 61 and 68.

(3) For an application for a licence to authorise a material activity that would involve a kind of NNP material or NNP equipment or plant specified in column 1 of an item in the following table, the information and documents specified in column 2 of the item are required.

Information and documents—material activities involving particular NNP material or NNP equipment or plant

Item	Column 1 Kind of NNP material or NNP equipment or plant	Column 2 Information and documents required
1	Sealed NNP material	Information and documents that describe and document the following: (a) the hazard level, nuclide, activity level, chemical form and physical form of the sealed NNP material; (b) the encapsulation material for the sealed NNP material; (c) the identification details of the sealed NNP material; (d) the intended purpose of the sealed NNP material; (e) where the sealed NNP material would be located
2	Unsealed NNP material	Information and documents that describe and document the following: (a) the hazard level, nuclide, chemical form and physical form of the unsealed NNP material; (b) the identification details of the unsealed NNP material; (c) the intended purpose of the unsealed NNP material; (d) where the unsealed NNP material would be located; (e) the forecast maximum activity level of each nuclide at each of those locations
3	NNP equipment or plant that produces ionising radiation	Information and documents that describe and document the following: (a) the hazard level, and the maximum output (in a relevant unit of measurement e.g. joules per kilogram), of the NNP equipment or plant; (b) the identification details of the NNP equipment or plant; (c) the intended purpose of the NNP equipment or plant; (d) where the NNP equipment or plant would be located
4	NNP equipment or plant that produces harmful non-ionising radiation	Information and documents that describe and document the following: (a) the hazard level of the NNP equipment or plant;

Information and documents—material activities involving particular NNP material or NNP equipment or plant		
Item	**Column 1** **Kind of NNP material or NNP equipment or plant**	**Column 2** **Information and documents required**
		(b) the identification details of the NNP equipment or plant; (c) the intended purpose of the NNP equipment or plant; (d) the likely exposure to radiation from the NNP equipment or plant and all relevant output parameters for the exposure; (e) where the NNP equipment or plant would be located

Note 1: To issue the licence, the Regulator must take into account the details provided under paragraphs (2)(a) and (b) and the description and documentation provided under the relevant item in the table in subsection (3): see section 48.

Note 2: The licence, if issued, would be subject to a condition that the information and documents specified in the relevant item in the table in subsection (3) are maintained: see section 86.

31 Additional information and documents for any kind of material activity—transport management and movement plans

(1) This section applies to an application for a licence to authorise any kind of material activity in a designated zone.

Transport management plan

(2) Information and documents that describe and document the proposed transport management plan for transporting NNP material or NNP equipment or plant into, or out of, a designated zone for the activity are required.

Note: The licence, if issued, would be subject to conditions that the licence holder conduct the activity in accordance with the plan and that the plan is implemented, maintained, audited and reviewed: see sections 68 and 89.

Movement plan

(3) Information and documents that describe and document the proposed movement plan for moving NNP material or NNP equipment or plant within a designated zone for the activity are required.

Note: The licence, if issued, would be subject to conditions that the licence holder conduct the activity in accordance with the plan and that the plan is implemented, maintained, audited and reviewed: see sections 68 and 89.

32 Additional information and documents—activity of having possession or control of NNP material or NNP equipment or plant in a designated zone

For an application for a licence to authorise a material activity of having possession or control of NNP material or NNP equipment or plant in a designated zone, information and documents that describe and document the proposed plan for the possession or control of the NNP material or NNP equipment or plant are required.

Note: The licence, if issued, would be subject to conditions that the licence holder conduct the activity in accordance with the plan and that the plan is implemented, maintained, audited and reviewed: see sections 68 and 91.

33 Additional information and documents—activity of using NNP material in a designated zone

For an application for a licence to authorise a material activity of using NNP material in a designated zone, information and documents that describe and document the proposed plan for using the NNP material are required.

Note: The licence, if issued, would be subject to conditions that the licence holder conduct the activity in accordance with the plan and that the plan is implemented, maintained, audited and reviewed: see sections 68 and 92.

34 Additional information and documents—activity of using or operating NNP equipment or plant in a designated zone

For an application for a licence to authorise a material activity of using or operating NNP equipment or plant in a designated zone, information and documents that describe and document the proposed plan for using or operating the NNP equipment or plant are required.

Note: The licence, if issued, would be subject to conditions that the licence holder conduct the activity in accordance with the plan and that the plan is implemented, maintained, audited and reviewed: see sections 68 and 93.

35 Additional information and documents—activity of maintaining, storing or disposing of NNP material or NNP equipment or plant in a designated zone

For an application for a licence to authorise a material activity of maintaining, storing or disposing of NNP material or NNP equipment or plant in a designated zone, information and documents that describe and document the proposed plan for the maintaining, storing or disposing of the NNP material or NNP equipment or plant are required.

Note: The licence, if issued, would be subject to conditions that the licence holder conduct the activity in accordance with the plan and that the plan is implemented, maintained, audited and reviewed: see sections 68 and 94.

Division 3—Manner of giving application

36 Manner of giving an application

(1) For the purposes of paragraph 30(1)(l) of the Act, the manner for giving an application for a licence to authorise any kind of facility activity or material activity is through the online lodgement facility provided by the Regulator.

Note: The application must be in the approved form (if any): see paragraph 30(1)(i) of the Act.

(2) The Regulator must publish a notice of the application on its website.

Division 4—Further information Regulator may require in connection with application

37 Further information the Regulator may require

For the purposes of subsection 30A(2) of the Act, the kinds of further information that may be required by the Regulator in connection with an application for a licence to authorise a facility activity or material activity are the following:

(a) further information in relation to any information that the application must contain or any documents that must accompany the application (for example, for the purpose of clarifying, confirming or demonstrating a matter to the Regulator's satisfaction);

(b) further information in relation to any matter that the Regulator must be satisfied of, or take into account, in deciding whether to issue the licence;

(c) further information to demonstrate that the proposed licence holder, and any other persons that would be authorised under the licence to conduct the activity, would be able to comply with the Act, this instrument and any licence condition that would be imposed under section 32 of the Act;

(d) any other information that is reasonably necessary to assist the Regulator to make a decision on the application.

Note: For example, if the Regulator has concerns that a proposed plan for the conduct of the regulated activity provided with the application may not meet the requirements for the plan in section 61, the Regulator may require further information about the changes to the plan the applicant proposes to make to address these concerns.

Part 3—Matters to be satisfied of or taken into account in issuing licence authorising facility activity or material activity

Division 1—Preliminary

38 Simplified outline of this Part

To conduct a regulated activity, a person generally must be authorised by an Australian naval nuclear power safety licence, and comply with the conditions of the licence (see sections 19, 23 and 25 of the Act for the offences and civil penalty provisions relating to this).

If a Commonwealth-related person makes an application for a licence under section 28 of the Act, the Regulator may under section 31 of the Act issue, or refuse to issue, the licence to the person.

Under section 31 of the Act, in deciding whether to issue a licence, the Regulator must be satisfied:

(a) that the applicant will be able to comply with the conditions of the licence; and

(b) of any matter prescribed by the regulations.

The Regulator must also take into account:

(a) international best practice in relation to nuclear safety that is relevant to naval nuclear propulsion; and

(b) any matter prescribed by the regulations.

Division 2 of this Part prescribes matters that the Regulator must be satisfied of, or take into account, in deciding whether to issue a licence to authorise a facility activity or a material activity. The matters may be prescribed:

(a) for all such licences (this is set out in Subdivision A); or

(b) only for licences authorising facility activities or a particular kind of facility activity (this is set out in Subdivision B); or

(c) only for licences authorising material activities (this is set out in Subdivision C).

If the Regulator is required to be satisfied of, or take into account, a matter, there may be:

(a) a related requirement in Part 2 for the applicant to provide information or documents; and

(b) a related licence condition in Part 4.

39 Matters the Regulator must be satisfied of or take into account in issuing licence authorising facility activity or material activity

For the purposes of subparagraphs 31(2)(a)(ii) and 31(2)(b)(ii) of the Act:

(a) the matters the Regulator must be satisfied of; and

(b) the matters the Regulator must take into account;

in deciding whether to issue a licence to authorise a facility activity or material activity are the matters prescribed by this Part for a licence to authorise that kind of facility activity or material activity.

Division 2—Matters to be satisfied of or taken into account

Subdivision A—Licence authorising any kind of facility activity or material activity

40 General matters the Regulator must be satisfied of

(1) This section applies to a licence to authorise any kind of facility activity or material activity.

General

(2) The Regulator must be satisfied that:

(a) the application contains the information and is accompanied by the documents required by Division 2 of Part 2; and

(b) the applicant has given any further information required by the Regulator under subsection 30A(1) of the Act (see section 37 of this instrument); and

(c) the applicant has demonstrated that the proposed licence holder would ensure, so far as reasonably practicable, nuclear safety when conducting the regulated activity; and

(d) the applicant has demonstrated that the proposed licence holder would be able to comply with the other nuclear safety duties that would apply to the licence holder under Division 2 of Part 2 of the Act; and

(e) the applicant has demonstrated that the systems, arrangements and plans described and documented in the application or a document accompanying the application (see subsection 20(2) and section 21 of this instrument) would be appropriate for their purpose; and

(f) the applicant has demonstrated that all of the following, in relation to the conduct of the regulated activity, would be kept as low as reasonably achievable taking into account economic and societal factors:

(i) the magnitude of individual doses;

(ii) the number of people who are exposed;

(iii) the likelihood of incurring exposures to ionising radiation and harmful non-ionising radiation; and

(g) the persons, or class of persons, to be authorised to conduct the regulated activity would, so far as reasonably practicable, have appropriate expertise, training and information to ensure the nuclear safety of the regulated activity; and

(h) if it is reasonably foreseeable that:

(i) any other high risk activities or material would be, or could be, conducted or located in, or near, the designated zone in which the regulated activity may be conducted under the licence; and

(ii) those activities or materials could reasonably pose additional risks to the nuclear safety of the regulated activity;

the measures (as proposed at the time of making the decision to issue the licence) to mitigate that additional risk ensure, so far as reasonably practicable, that additional risk is mitigated; and

(i) the activity would be adequately and appropriately insured.

Radiation monitoring boundaries and exclusion zones

(3) The Regulator must be satisfied that the boundaries to be set (as proposed at the time of making the decision to issue the licence) for the radiation monitoring of the regulated activity would ensure nuclear safety.

Note 1: For the information and documents that the applicant must provide that are relevant to this subsection: see section 19.

Note 2: The licence, if issued, would be subject to a condition that radiation monitoring is undertaken within set boundaries in accordance with the radiation protection plan for the activity: see subsection 59(2).

(4) The Regulator must be satisfied that the exclusion zone to be set around the boundary of the area in which the regulated activity would be conducted (as proposed at the time of making the decision to issue the licence):

(a) would ensure nuclear safety; and

(b) would be enforced throughout the proposed period of the licence.

Note 1: For the information and documents that the applicant must provide that are relevant to this subsection: see section 19.

Note 2: The licence, if issued, would be subject to a condition that the exclusion zone is enforced: see subsection 59(4).

41 General matters the Regulator must take into account

The Regulator must take into account the following matters in deciding whether to issue a licence to authorise any kind of facility activity or material activity:

(a) whether the applicant has demonstrated that the interaction between technical, human and organisational factors in the management of nuclear safety has been considered in relation to the conduct of the activity;

(b) whether the applicant has demonstrated that international best practice in relation to nuclear safety that is relevant to naval nuclear propulsion has been considered in the development of the proposed nuclear safety management system for the activity, and the proposed arrangements and plans for the activity, that would be required under section 61;

(c) the analysis of the radiological consequences to the surrounding environment from a reference incident at the site of the activity, provided under paragraph 15(f);

(d) whether the information contained in the application, and the documents accompanying the application, comply with the requirements specified by the ANNPS Licence Applications Code in relation to information or documents of that kind, where the information or documents are required by:

(i) for an application for a licence to authorise a facility activity—Subdivision C of Division 2 of Part 2; or

(ii) for an application for a licence to authorise a material activity—Subdivision D of Division 2 of Part 2;

(e) any technical authorities or standards, that the Regulator is aware of, that:

(i) address measures to ensure, so far as reasonably practicable, nuclear safety; and

(ii) would apply in relation to the conduct of the activity if the licence is issued;

(f) any other proposed policies or procedures for the conduct of the activity that the Regulator is aware of;

(g) any other design and operational limits and conditions (actual or proposed) of any infrastructure, plant, equipment, information technology, radiation monitoring boundaries, systems, components, or warning devices proposed to be involved in the conduct of the activity that the Regulator is aware of;

(h) any other matters the Regulator considers relevant.

Note: For the purposes of paragraph (b), the applicant must provide information that describes how international best practice in relation to nuclear safety that is relevant to naval nuclear propulsion has been considered in the development of the system, arrangements and plans*:* see subsection 20(3).

Subdivision B—Licence authorising facility activity—additional matters

42 Additional matters—any kind of facility activity

(1) This section applies to a licence to authorise any kind of facility activity.

Note: For the information and documents that the applicant must provide that are relevant to this section, see Subdivision C of Division 2 of Part 2.

Matters to be satisfied of

(2) The Regulator must be satisfied of the following matters in deciding whether to issue a licence to authorise a facility activity:

(a) that the applicant has demonstrated that all regulated activities that could reasonably be foreseen to be conducted in relation to the facility, or proposed facility, over its lifetime have been appropriately considered in relation to the conduct of the activity;

(b) that meaningful consultation has been undertaken with all relevant stakeholders, Aboriginal and Torres Strait Islander peoples and the public about the regulated activity and the facility or proposed facility.

Matters to take into account

(3) The Regulator must take into account the following matters in deciding whether to issue a licence to authorise a facility activity:

(a) the baseline radiological data provided under subsection 23(2);

(b) the level of nuclear safety risk posed by the activity proposed to be authorised (having regard to the matters in paragraph 23(3)(b));

(c) if paragraph 23(3)(e) applies in relation to the application for the licence—the extent to which conditions applying to the previous licensing stage have been complied with;

(d) the preliminary plans provided as required by the section in Subdivision C of Division 2 of Part 2 that applies in relation to an application for a licence to authorise the facility activity.

Note 1: The licence, if issued, would be subject to a condition that a current description of the level of nuclear safety risk is maintained: see section 77.

Note 2: For whether paragraph 23(3)(e) applies in relation to the application for the licence, see subsections 23(1) and (4).

Note 3: Preliminary plans may be preliminary decommissioning plans, preliminary operational plans or preliminary disposal plans. A preliminary plan is not required for an application for a licence to authorise a facility activity of disposing of an NNP facility in a designated zone.

43 Additional matters—activity of preparing a site for an NNP facility in a designated zone

For a licence to authorise a facility activity of preparing a site for an NNP facility in a designated zone, the Regulator must be satisfied that the site evaluation for the proposed facility (as proposed at the time of making the decision to issue the licence) demonstrates the suitability of the site for the proposed facility.

Note: For the information and documents that the applicant must provide that are relevant to this section, see section 24.

44 Additional matters—activity of having possession or control of an NNP facility in a designated zone

For a licence to authorise a facility activity of having possession or control of an NNP facility in a designated zone, and if subsection 26(3) applies, the Regulator must be satisfied that the construction evaluation for the facility (as proposed at the time of making the decision to issue the licence) demonstrates the suitability of the facility for the possession or control.

Note: For whether subsection 26(3) applies, see subsections 26(1) and (4).

45 Additional matters—activity of operating an NNP facility in a designated zone

(1) This section applies to a licence to authorise a facility activity of operating an NNP facility in a designated zone.

(2) The Regulator must be satisfied that the evaluation of the readiness of the facility for its proposed operation (as proposed at the time of making the decision to issue the licence) demonstrates the suitability of the facility for its proposed operation.

Note: For the information and documents that the applicant must provide that are relevant to this subsection, see subsection 27(3).

(3) The Regulator must take into account the results of the field exercise provided under subsection 27(6).

46 Additional matters—activity of decommissioning an NNP facility in a designated zone

For a licence to authorise a facility activity of decommissioning an NNP facility in a designated zone, the Regulator must take into account the strategy for decommissioning the facility provided under subsection 28(3).

47 Additional matters—activity of disposing of an NNP facility in a designated zone

(1) This section applies to a licence to authorise a facility activity of disposing of an NNP facility in a designated zone.

(2) The Regulator must be satisfied that the evaluation of the decommissioning of the facility demonstrates the suitability of the facility for disposal.

Note: For the information and documents that the applicant must provide that are relevant to this subsection, see subsection 29(3).

(3) The Regulator must take into account the independent assessment provided under subsection 29(5).

Subdivision C—Licence authorising material activity—additional matters

48 Additional matters—any kind of material activity

For a licence to authorise any kind of material activity, the Regulator must take into account the following matters:

(a) the details of the types, categories, forms and quantities of any NNP material or NNP equipment or plant provided under paragraph 30(2)(a);

(b) the proposed arrangements, provided under paragraph 30(2)(b), for storing, managing and handling any such NNP material or NNP equipment or plant;

(c) the description and documentation of NNP material or NNP equipment or plant provided under subsection 30(3).

Note: The licence, if issued, would be subject to a condition that the information and documents specified in the relevant item in the table in subsection 30(3) are maintained: see section 86.

Part 4—Conditions applying to licence authorising facility activity or material activity

Division 1—Preliminary

49 Simplified outline of this Part

A person authorised by an Australian naval nuclear power safety licence to conduct a regulated activity must comply with the conditions of the licence that apply to the person (see sections 23 and 25 of the Act for the offences and civil penalty provisions relating to breach of conditions).

Under section 32 of the Act, a licence is subject to all of the following conditions:

(a) the condition set out in subsection 32(2) of the Act;

(b) the conditions prescribed by the regulations;

(c) conditions specified by the Regulator in the licence at the time of issuing the licence;

(d) any conditions specified by the Regulator under subsection 34(2) of the Act after the licence is issued.

This Part prescribes conditions for a licence authorising a facility activity or material activity. The conditions apply to the licence holder and may also apply to other persons authorised under the licence. The conditions may apply to:

(a) all licences authorising a facility activity or material activity (these are set out in Division 2); or

(b) only licences authorising facility activities or a particular kind of facility activity (these are set out in Division 3); or

(c) only licences authorising material activities or a particular kind of material activity (these are set out in Division 4).

A licence authorising a facility activity or material activity is also subject to the conditions in section 99 (in Part 5) in relation to nuclear safety incidents that the licence holder is required to report under section 21 of the Act.

50 Application of this Part

This Part does not apply to a licence authorising a submarine activity.

Note: For the meaning of ***submarine activity***, see section 13 of the Act.

51 Conditions to which a licence authorising a facility activity or material activity is subject

(1) For the purposes of paragraph 32(1)(b) of the Act, a licence authorising:

(a) a facility activity; or

(b) a material activity in a designated zone;

is subject to the conditions prescribed by this Part that are applicable to the activity.

Note: The licence is also subject to conditions relating to a nuclear safety incident that the licence holder must report under section 21 of the Act: see section 99 of this instrument.

(2) Each condition prescribed by this Part applies to:

(a) the licence holder; and

(b) if the condition specifies that it applies to both the licence holder and any other person authorised to conduct the regulated activity—that other person.

Division 2—Conditions applying to licence authorising any kind of facility activity or material activity

Subdivision A—General conditions relating to the conduct of the regulated activity

52 General conduct of the regulated activity

It is a condition that the regulated activity is conducted in accordance with the following:

(a) radiation exposure is to be controlled and monitored;

(b) ingestion and inhalation of radioactive material, and absorption of radioactive material through direct contact with intact or broken skin, is to be prevented;

(c) radiation exposure is to be kept as low as reasonably achievable;

(d) material contaminated with radioactive material or radionuclides is to be controlled;

(e) NNP material and NNP equipment or plant is to be controlled;

(f) the reactivity of naval nuclear propulsion plant is to be controlled;

(g) the residual heat of naval nuclear propulsion plant is to be removed;

(h) the radioactivity of NNP material and naval nuclear propulsion plant is to be contained;

(i) the health of all persons authorised under the licence and all other occupationally exposed persons is to be maintained;

(j) the public and environment are to be protected from exposure to ionising radiation and harmful non-ionising radiation resulting from the conduct of the activity;

(k) hazards or risks that may result in damage to naval nuclear propulsion plant are to be prevented or mitigated.

Note: There are also nuclear safety duties in Division 2 of Part 2 of the Act that apply to people when they conduct regulated activities.

53 Adequate resources for the safe conduct of the regulated activity

It is a condition that the licence holder must, at all times during the period of the licence, have, control and maintain adequate financial, human and technical resources to conduct the regulated activity safely.

54 Changes to the conduct of the regulated activity and to systems, arrangements, designs and plans

(1) This section applies to the following:

(a) changes related to the conduct of the regulated activity;

(b) changes to the nuclear safety management system, arrangements or a plan for the regulated activity required under section 61;

(c) changes to the records management system for the regulated activity required under section 62;

(d) changes to a plan or design for the regulated activity required under Division 3 of this Part (plans or designs for particular facility activities);
(e) changes to a plan for the regulated activity required under Division 4 of this Part (plans for particular material activities).

Changes that must be approved

(2) It is a condition that the licence holder must comply with subsection (3) if:
(a) the licence holder proposes to implement or make the changes; and
(b) for changes to the nuclear safety plan, the radiation protection plan, the emergency management and response plan or the environmental protection plan (which are covered by paragraph (1)(b))—the proposed changes are not insubstantial, insignificant or trivial or a correction of an administrative error; and
(c) for any other changes not covered by paragraph (b) of this subsection—the proposed changes are significant or may have significant implications for nuclear safety.

(3) The licence holder must:
(a) obtain approval from the Regulator before implementing or making the changes; and
(b) for changes mentioned in paragraphs (1)(b) to (e)—provide the Regulator with any updated documentation of the system, arrangements, design or plan proposed to be changed.

Changes that must be notified

(4) It is a condition that the licence holder must comply with subsection (5) if:
(a) the licence holder implements or makes the changes; and
(b) the changes are:
(i) not of a kind required to be approved under subsection (3); and
(ii) not insubstantial, insignificant or trivial; and
(c) for changes covered by paragraph (1)(a)—the changes modify any NNP facility, NNP material or NNP equipment or plant, that are, or could be, involved in the regulated activity.

(5) The licence holder must:
(a) notify the Regulator of the changes implemented or made; and
(b) for changes mentioned in paragraphs (1)(b) to (e)—provide the Regulator with any updated documentation of the system, arrangements, design or plan.

55 Conducting the regulated activity

It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that the licence holder or other person must do the following when conducting the regulated activity:
(a) take all reasonably practicable steps to prevent or minimise human errors and organisational failures in the conduct of the activity;

(b) take all reasonably practicable steps to prevent or minimise incidents (including accidents, near misses and deficiencies) and to minimise the consequences of any incidents.

56 Compliance with ANNPS Licence Conditions Code

It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that the licence holder or other person must ensure that any requirements specified in the ANNPS Licence Conditions Code in relation to the following are complied with:

(a) the conduct of the regulated activity;

(b) a system, arrangements or plan that is required under this Part in relation to the activity.

Note: Paragraph (b) does not limit what the system, arrangements or plan must address to meet the conditions in this Part, or what the licence holder may otherwise choose to deal with in the system, arrangements or plan.

57 Nuclear safety site induction

(1) It is a condition that the licence holder must ensure that all persons entering the site of the regulated activity receive a site induction:

(a) before first entering the site; and

(b) if the person has not received a site induction in the previous 12 months—before entering an NNP facility, or interacting with NNP material or NNP equipment or plant, at the site; and

(c) before interacting with a kind of NNP material or NNP equipment or plant, at the site, if the person has not received a site induction that covered that kind of NNP material or NNP equipment or plant in the previous 12 months.

Note: Records must be kept: see section 62.

(2) The site induction must cover:

(a) nuclear safety and radiation hazards and risks at the site in relation to the regulated activity and the kinds of NNP material or NNP equipment or plant at the site; and

(b) for persons at higher risk—the severity of such hazards and risks; and

(c) how to respond to a nuclear safety incident and any other emergency or incident that could occur in relation to the regulated activity at the site; and

(d) reporting requirements for nuclear safety incidents and other emergencies or incidents.

Induction material must be reviewed every 12 months

(3) It is a condition that the licence holder must review the appropriateness and effectiveness of the induction material:

(a) every 12 months (beginning on the day the licence is issued); and

(b) each time significant changes are required to ensure nuclear safety.

(4) It is a condition that the licence holder must cause the review to be completed within 3 months after:
  (a) if paragraph (3)(a) applies—the end of the relevant 12 month period; or
  (b) if paragraph (3)(b) applies—the significant change is made.

Results of review must be reported to the Regulator

(5) It is a condition that the licence holder must, within 14 days of the completion of the review, provide the Regulator with a report on the outcomes of the review that includes details of:
  (a) the assessment of the appropriateness and effectiveness of the material; and
  (b) how any identified deficiencies were, or are proposed to be, rectified.

Note: The licence holder must receive approval from the Regulator before implementing a change identified in the review if the change is significant or may have significant implications for nuclear safety: see section 54.

58 Warning placards and warning devices

Warning placards

(1) It is a condition that the licence holder must ensure that a sufficient number of warning placards, in relation to nuclear safety hazards and risks, are prominently displayed in the area in which the regulated activity is conducted.

(2) It is a condition that the placards must be:
  (a) clearly legible by persons approaching the placard; and
  (b) separate from any other sign or writing that contradicts, qualifies or distracts attention from the placard; and
  (c) located:
    (i) as close as is reasonably practicable to the main entrance of each NNP facility or workspace involved in the activity; and
    (ii) at the entrance to each room or walled section in which NNP material or NNP equipment or plant involved in the activity is used, handled or stored; and
    (iii) on, next to, or at the entrance of, each container or outside storage area in which NNP material or NNP equipment or plant involved in the activity is stored or transported; and
    (iv) at each entrance where an emergency service organisation (within the meaning of the *Work Health and Safety Regulations 2011*) may enter a NNP facility or workspace involved in the activity.

(3) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that the licence holder or other person must:
  (a) ensure that the placards remain accurate; and
  (b) ensure that the placards are:
    (i) kept clean; and
    (ii) maintained in good repair; and
    (iii) not covered or obscured.

Warning devices

(4) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that the licence holder or other person must:

(a) ensure that a sufficient number of warning devices are operational in the area in which the regulated activity is conducted, and during the conduct of the activity, to minimise nuclear safety risks; and

(b) ensure that each warning device is positioned to ensure that the device will work to best effect; and

(c) ensure that sufficient information, training and instruction is provided to persons in the area in relation to the use of the devices and responding to warnings; and

(d) take all reasonable steps to ensure that the warning devices are used in accordance with that information, training and instruction.

Incident review

(5) If a deficiency in the effectiveness or appropriateness of a warning placard or a warning device may have been a factor in an incident relating to the regulated activity, it is a condition that the licence holder must review the appropriateness and effectiveness of the warning placards or warning devices used at the site of the regulated activity.

Note: The licence holder must receive approval from the Regulator before implementing a change identified in the review if the change is significant or may have significant implications for nuclear safety: see section 54.

59 Radiation monitoring boundaries and exclusion zones

Radiation monitoring boundaries

(1) It is a condition that the licence holder must have set boundaries for the radiation monitoring of the regulated activity that:

(a) ensure nuclear safety; and

(b) are as proposed at the time of making the decision to issue the licence, as changed from time to time by the licence holder:

(i) in accordance with section 54; or

(ii) to comply with a condition specified by the Regulator for the purposes of subsection 34(2) of the Act.

(2) It is a condition that the licence holder undertake radiation monitoring of the activity within the boundaries in accordance with the radiation protection plan for the activity.

Note: For the radiation protection plan, see section 61.

Exclusion zone

(3) It is a condition that the licence holder must set an exclusion zone around the boundary of the area in which the regulated activity is conducted that:

(a) ensures nuclear safety; and

(b) is as proposed at the time of making the decision to issue the licence, as changed from time to time by the licence holder:

(i) in accordance with section 54; or

(ii) to comply with a condition specified by the Regulator for the purposes of subsection 34(2) of the Act.

(4) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that the licence holder or other person must enforce the exclusion zone.

Transitional arrangements

(5) If the licence is a transitional licence:

(a) it is a condition that the licence holder must, on the day the Act commences, provide information and documents that describe and document the set boundaries and exclusion zone to the Regulator; and

(b) paragraph (1)(b) applies as if the reference to the set boundaries as proposed at the time of making the decision to issue the licence were a reference to the set boundaries as described and documented in the information and documents provided to the Regulator on the day the Act commences; and

(c) paragraph (3)(b) applies as if the reference to the exclusion zone as proposed at the time of making the decision to issue the licence were a reference to the exclusion zone as described and documented in the information and documents provided to the Regulator on the day the Act commences.

60 Treatment of clearance material

(1) This section does not apply in relation to a licence to authorise a facility activity of preparing a site for an NNP facility in a designated zone.

(2) It is a condition that clearance material from the conduct of the activity is handled, transported, stored, disposed of or otherwise managed as proposed at the time of making the decision to issue the licence, as changed from time to time by the licence holder:

(a) in accordance with section 54; or

(b) to comply with a condition specified by the Regulator for the purposes of subsection 34(2) of the Act.

Subdivision B—Conditions relating to nuclear management system, arrangements and plans for the activity

61 Nuclear safety management system, arrangements and plans for the conduct of the activity

(1) It is a condition that the regulated activity is conducted in accordance with each of the following:

(a) a nuclear safety management system;

(b) arrangements for organisational and human control of the activity;

(c) a regulatory compliance plan;
(d) a supply chain management plan;
(e) a nuclear safety plan;
(f) a radiation protection plan;
(g) a radioactive waste management plan;
(h) a security plan;
(i) an emergency management and response plan;
(j) an environmental protection plan;
(k) an insolvency plan.

Note: The regulated activity must also be conducted in accordance with obligations imposed by other laws. The regulatory compliance plan mentioned in paragraph (c) deals with compliance with Commonwealth law and regulatory requirements: see subsection (3).

General requirements for systems, arrangements and plans

(2) It is a condition that each system, arrangements and plan mentioned in subsection (1):
(a) be as proposed at the time of making the decision to issue the licence, as changed from time to time by the licence holder:
(i) in accordance with section 54; or
(ii) to comply with a condition specified by the Regulator for the purposes of subsection 34(2) of the Act; and
(b) be effectively implemented and maintained throughout the period of the licence.

Note 1: The system, arrangements or plan must comply with any relevant requirements specified in the ANNPS Licence Conditions Code: see section 56.

Note 2: Neither section 56, nor a condition in this section that relates to the system, arrangements or plan, limits what the licence holder may otherwise choose to deal with in the system, arrangements or plan.

Note 3: The system, arrangements and plans must be audited and reviewed: see section 68.

Specific requirements for each system, arrangements and plan

(3) It is a condition that the system, arrangements or plan specified in an item in the following table complies with the requirement specified in that item.

Requirements for systems, arrangements and plans

Item	Column 1 The…	Column 2 must…
1	nuclear safety management system	ensure control of the activity
2	arrangements for organisational and human control of the activity	maintain control of the organisation and nuclear safety
3	regulatory compliance plan	ensure continual compliance with Commonwealth law and regulatory requirements
4	supply chain management plan	ensure effective supply chains
5	nuclear safety plan	(a) ensure that:

Requirements for systems, arrangements and plans		
Item	**Column 1** **The…**	**Column 2** **must…**
		(i) the activity is conducted safely; and (ii) radiation exposure is kept as low as reasonably achievable within the applicable dose limits (see Subdivision D); and (b) include a safety case for the activity that deals with any hazards or risks
6	radiation protection plan	ensure: (a) radiation protection to prevent harmful or accidental irradiation of any person; and (b) radiation exposure is kept as low as reasonably achievable
7	radioactive waste management plan	ensure effective radioactive waste management
8	security plan	ensure the security of any NNP facilities, NNP material and NNP equipment or plant that are, or could be, involved in the activity
9	emergency management and response plan	ensure that the management of, and response to, emergencies removes or minimises risk or harm to persons or the environment
10	environmental protection plan	ensure environmental management and protection
11	insolvency plan	eliminate or reduce the risk to nuclear safety from potential insolvency, by making effective arrangements for: (a) potential insolvency of the licence holder; and (b) the impact of insolvency of the licence holder on nuclear safety; and (c) indemnities in relation to the regulated activity

Transitional arrangements

(4) If the licence is a transitional licence:

(a) the condition in subsection (1) in relation to the plans mentioned in paragraphs (1)(c), (d) and (k) does not apply until the day that is 6 months after the commencement of the Act; and

(b) it is a condition that the licence holder must, on the day that is 6 months after the commencement of the Act, provide information and documents that describe and document those plans to the Regulator; and

(c) paragraph (2)(a) applies in relation to those plans as if the reference to the plan as proposed at the time of making the decision to issue the licence

were a reference to the plan as provided to the Regulator on the day that is 6 months after the commencement of the Act.

(5) If the licence is a transitional licence:

(a) it is a condition that the licence holder must, on the day the Act commences, provide information and documents that describe and document the nuclear safety management system and the arrangements and plans referred to in paragraphs (1)(a), (b), (e), (f), (g), (h), (i) and (j) to the Regulator; and

(b) paragraph (2)(a) applies to that system and those arrangements and plans as if the reference to the system, arrangements or plan as proposed at the time of making the decision to issue the licence were a reference to the system, arrangements or plan as described and documented in the information and documents provided to the Regulator on the day the Act commences.

Subdivision C—Conditions relating to reporting, record keeping, audit and review

62 Records management system

Records management system

(1) It is a condition that records relating to the conduct of the regulated activity are kept in the records management system for the activity.

(2) It is a condition that the records management system for the activity must:

(a) ensure that:

(i) records of all matters of significance in relation to the regulated activity are kept; and

(ii) all records remain accessible in Australia for at least 80 years or, if the record relates to radiation monitoring or exposure to radiation, for at least 150 years; and

(iii) all records relating to nuclear safety are traceable in respect of the information they contain; and

(iv) in the event that the licence expires or is surrendered or cancelled, or the licence holder ceases to exist, all records remain accessible in Australia and are transferrable to the Regulator; and

(b) be as proposed at the time of making the decision to issue the licence, as changed from time to time by the licence holder:

(i) in accordance with section 54; or

(ii) to comply with a condition specified by the Regulator for the purposes of subsection 34(2) of the Act.

Note: Paragraph (a) does not limit what the licence holder may otherwise choose to deal with in the system.

(3) It is a condition that the licence holder must ensure that the records management system is effectively implemented and maintained throughout the period of the licence.

Note: The records management system must be audited and reviewed every 3 years: see section 68.

Access on request

(4) It is a condition that the licence holder must provide access to records relating to nuclear safety and radiation protection to the Regulator on request.

63 Information on request

(1) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that the licence holder or other person must provide the following information and documents if requested by the Regulator:

(a) information and documents that describe and document how a condition to which the licence is subject has been, or is being, complied with;

(b) information that describes how international best practice in relation to nuclear safety has been considered:

(i) in implementing or maintaining systems, arrangements or plans required under this Part; and

(ii) in conducting the regulated activity;

(c) records of doses (both occupational and otherwise) to persons in relation to the conduct of the regulated activity;

(d) records of any incidents (including accidents, near misses and deficiencies) in relation to the regulated activity and the consequences and management of those incidents;

(e) any other information or document that is reasonably necessary to assist the Regulator to perform any of the Regulator's functions to ensure nuclear safety.

Discussions with subject matter experts

(2) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that the licence holder or other person must, if requested by the Regulator in relation to a request by the Regulator for information under subsection (1), facilitate discussions between the Regulator and a subject matter expert in relation to that area of inquiry who is:

(a) nominated by the Regulator; or

(b) if the Regulator requests, nominated by the licence holder or other person.

(3) If the regulator makes a request for the purposes of paragraph (2)(b), the licence holder or person must nominate a suitably qualified and experienced subject matter expert as soon as practicable, and in any event within 14 days of the request.

64 Reporting—potential serious impacts and breaches

Potential serious impacts to nuclear safety or radiation protection

(1) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that if the licence holder or other person becomes aware of any event or circumstance (including a near miss), that:

(a) may seriously impact, or could have seriously impacted, nuclear safety or radiation protection; and

(b) that occurs in relation to:

(i) the regulated activity; or

(ii) any NNP facility, NNP material or NNP equipment or plant, involved in the conduct of the activity;

the licence holder or other person must immediately report the event or circumstance to the Regulator.

Note: The licence holder must immediately report any nuclear safety incident that occurs in relation to the regulated activity authorised by the licence: see section 21 of the Act and section 98 of this instrument.

Breach of licence condition

(2) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that if the licence holder or other person becomes aware of a breach of a condition to which the licence is subject, the licence holder or other person must report the breach to the Regulator as soon as possible after becoming aware.

Suspected breach of licence condition

(3) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that if the licence holder or other person suspects that a breach of a condition to which the licence is subject may have occurred, the licence holder or other person must, as soon as practicable after forming the suspicion:

(a) investigate the suspected breach; and

(b) report their findings to the Regulator.

Serious offences and contraventions of serious civil penalty provisions

(4) It is a condition applying to both the licence holder and any other person (the ***other authorised person***) authorised to conduct the regulated activity that if the licence holder or other authorised person suspects that:

(a) the licence holder, or any other person authorised under the licence, has committed or is committing a serious offence against a Commonwealth, State or Territory law; or

(b) the licence holder, or any other person authorised under the licence, has contravened or is contravening a serious civil penalty provision of a Commonwealth, State or Territory law;

the licence holder or the other authorised person must report their suspicion to the Regulator within 28 days of forming the suspicion.

(5) It is a condition that the licence holder must report to the Regulator any proceedings against the licence holder for a serious offence against, or contravention of a serious civil penalty provision of, a Commonwealth, State or Territory law within 28 days of the proceeding being brought.

(6) A ***serious offence*** is an offence against the law of the Commonwealth, a State or a Territory that:

(a) is an offence involving fraud or dishonesty punishable by imprisonment for life or for a period, or a maximum period, of at least 3 months; or

(b) is an offence punishable by imprisonment for life or for a period, or a maximum period, of at least 3 years.

(7) A ***serious civil penalty provision*** is a civil penalty provision of a Commonwealth, State or Territory law with a maximum penalty that is at least equivalent to 5,000 penalty units.

65 Reporting—incidents

Periodic review and reporting of incidents

(1) It is a condition that the licence holder must:

(a) for each period (as relevant) specified in subsection (2) (with the first of those periods beginning on the day the licence is issued)—review:

(i) all incidents (for example, accidents, near misses and deficiencies) that occurred in relation to the regulated activity during that period; and

(ii) the management and consequences of those incidents; and

(b) provide the Regulator, by the reporting deadline specified in subsection (2) for the period, with a report on the outcomes of the review that includes details of:

(i) key themes and trends identified for the period; and

(ii) any practices or procedures that have had a significant number of near misses or deficiencies which has resulted in increased nuclear safety and radiation protection risks; and

(iii) how any identified deficiencies were, or are proposed to be, rectified.

(2) For the purposes of paragraphs (1)(a) and (b):

(a) each of the periods set out in column 1 of an item in the following table are specified; and

(b) the reporting deadline for a report for a period is the day set out in column 2 of the item for the period.

Periodic review and reporting of incidents

Item	Column 1 Period of review	Column 2 Reporting deadline for a report
1	Each period (other than the final period) of 12 months during which the licence is in force	The day that is 28 days after the end of the period

Periodic review and reporting of incidents		
Item	**Column 1** **Period of review**	**Column 2** **Reporting deadline for a report**
2	The final period of 12 months during which the licence is in force	The day determined, in writing, by the Regulator in relation to the particular report, being a day before the licence ceases to be in force
3	If the remaining period of the licence, following any periods already covered by this table, is less than 12 months—that period	The day determined, in writing, by the Regulator in relation to the particular report, being a day before the licence ceases to be in force

Report on investigation of incident

(3) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that if the licence holder or other person receives a report on:

(a) an internal investigation of an incident in relation to the regulated activity; or

(b) an investigation by a Commonwealth, State or Territory agency (other than the Regulator) of an incident in relation to the regulated activity;

the licence holder or other person must provide the report to the Regulator within 14 days after receiving the report.

66 Reporting—holdings of radioactive waste awaiting disposal

It is a condition that the licence holder report to the Regulator, every 12 months (beginning on the day the licence is issued):

(a) the amount of radioactive waste from the regulated activity that is in a designated zone at that time, awaiting disposal; and

(b) a description of the kind of the waste and its hazard level and classification.

67 Reporting—change of office holder with overarching control of activity

(1) If the person who is the office holder of the licence holder that has overarching organisational, financial and operational control of the conduct of the regulated activity changes, it is a condition that the licence holder must:

(a) notify the Regulator; and

(b) provide details of the new office holder to the Regulator.

(2) It is a condition that the licence holder must notify the Regulator and provide the details:

(a) at least 6 weeks before the change; or

(b) if the licence holder was not aware of the change 6 weeks before—as soon as practicable after becoming aware.

68 Nuclear safety management system, arrangements, plans and records management system must be audited and reviewed

(1) This section applies in relation to all of the following:
  (a) the nuclear safety management system, arrangements and each plan for the activity required under section 61;
  (b) the records management system for the activity required under section 62;
  (c) each plan for the activity required under Division 3 of this Part (plans for particular facility activities);
  (d) each plan for the activity required under Division 4 of this Part (plans for particular material activities).

(2) It is a condition that the licence holder must, in accordance with subsection (3):
  (a) audit the implementation of the system, arrangements or plan; and
  (b) review the appropriateness and effectiveness of the system, arrangements or plan.

(3) The audit and review must be undertaken:
  (a) for a plan mentioned in paragraph 61(1)(f), (i) or (j)—for each period of 12 months during which the licence authorises the conduct of the activity;
  (b) otherwise—for each period of 3 years during which the licence authorises the conduct of the activity;

  with the first of those periods beginning on the day the licence is issued.

  Note: The plans mentioned in paragraph 61(1)(f), (i) and (j) are the radiation protection plan, the emergency management and response plan and the environmental protection plan.

(4) It is a condition that the licence holder must cause the audit and review to be completed within 3 months after the end of the period to which the audit and review relates.

Results of audit and review must be reported to the Regulator

(5) It is a condition that the licence holder must, within 14 days after the completion of the audit and review, provide the Regulator with a report on the outcomes of the audit and review that includes details of:
  (a) the assessment of the implementation of the system, arrangements or plan; and
  (b) the assessment of the appropriateness and effectiveness of the system, arrangements or plan; and
  (c) how any identified deficiencies were, or are proposed to be, rectified.

Subdivision D—Conditions relating to dose limits

69 Dose limits

(1) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that the licence holder or other person must ensure that radiation protection, in relation to the conduct of the regulated activity, is optimised:

(a) to achieve the outcome that all of the following are kept as low as reasonably achievable:
  (i) the magnitude of individual doses;
  (ii) the number of people who are exposed;
  (iii) the likelihood of incurring exposures to ionising radiation and harmful non-ionising radiation; and
(b) in accordance with the limits in this Subdivision; and
(c) if the Regulator has specified, as a condition for the purposes of paragraph 32(1)(c) or subsection 34(2) of the Act, that other codes or standards for dose limits must be complied with—in accordance with those codes or standards.

Note 1: Records must be kept: see section 62.

Note 2: Any moderate or significant increase in the magnitude of individual doses, or the number of people who are exposed, must be reported to the Regulator: see section 76.

Note 3: If the significant increase involves a breach of dose limits, this must also be reported to the Regulator: see section 76.

(2) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that the licence holder or other person must ensure that exposure (both occupational and public) to harmful non-ionising radiation produced by any NNP equipment or plant that are involved in the conduct of the regulated activity is kept as low as reasonably achievable within applicable dose limits.

Note: Any moderate or significant increase in the magnitude of individual doses, or the number of people who are exposed, from the NNP equipment or plant must be reported to the Regulator: see section 76.

70 Dose limits—facility activity

(1) This section applies if the regulated activity authorised by the licence is a facility activity.

(2) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that the licence holder or other person must ensure that the doses that a person (whether or not an occupationally exposed person) is exposed to from ionising radiation inside, or in connection with, the NNP facility, do not exceed the applicable dose limits in sections 72 and 73.

Note: A significant increase in the magnitude of individual doses that involves a breach of dose limits must also be reported to the Regulator: see section 76.

71 Dose limits—activity of having possession or control of NNP material or NNP equipment or plant

(1) This section applies if the regulated activity authorised by the licence is the material activity of having possession or control of NNP material or NNP equipment or plant in a designated zone.

(2) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that the licence holder or other

person must ensure that the doses that a person (whether or not an occupationally exposed person) is exposed to from ionising radiation from the NNP material or the NNP equipment or plant do not exceed the applicable dose limits in sections 72 and 74.

Note: A significant increase in the magnitude of individual doses that involves a breach of dose limits must also be reported to the Regulator: section 76.

72 Effective dose limits for ionising radiation

Limit for occupational exposure of persons who are at least 18

(1) Subject to subsections (4) and (6), the effective dose for occupational exposure of a person who is at least 18 years old must not be greater than 20 mSv annually, averaged over 5 consecutive years.

(2) However, subject to subsection (6), the effective dose for a person who is at least 18 years old subject to occupational exposure must not, in a year, be greater than 50 mSv.

Limit for occupational exposure of persons who are 16 or 17

(3) Subject to subsection (4), the effective dose for occupational exposure of a person who is 16 or 17 years old must not be greater than 6 mSv annually.

Limit for occupational exposure of persons declared to be pregnant or breastfeeding

(4) The effective dose for occupational exposure of a person who has declared to the licence holder that the person is pregnant or breastfeeding must not be greater than 1 mSv annually.

Limit for public exposure

(5) Subject to subsection (6), the effective dose for public exposure (including of an unborn child) must not be greater than 1 mSv annually.

Limit for emergency workers and helpers

(6) The effective dose for exposure of a person who undertakes an action referred to in column 1 of an item in the following table must not be greater than as set out in column 2 of that item.

Limit for emergency workers and helpers

Item	Column 1 Action	Column 2 Limit
1	An emergency worker undertaking mitigatory actions and urgent protective actions on-site during a nuclear or radiological emergency, including: (a) lifesaving actions; and (b) actions to prevent serious injury; and	(a) in relation to actions of a kind referred to paragraph (a), (b) or (c) of column 1 of this item—500 mSv during

Limit for emergency workers and helpers		
Item	**Column 1** **Action**	**Column 2** **Limit**
	(c) actions to prevent the development of catastrophic conditions that could significantly affect people and the environment, and (d) actions to prevent severe tissue reactions that the worker considers is unlikely to result in serious injury	the nuclear or radiological emergency; (b) in relation to all other actions—50 mSv during the nuclear or radiological emergency
2	An emergency worker or helper undertaking urgent or early protective actions during the emergency response phase of a nuclear or radiological emergency	50 mSv during the nuclear or radiological emergency
3	An emergency worker undertaking long-term recovery operations during transition or termination phases of a nuclear or radiological emergency and beyond	20 mSv annually, averaged over 5 consecutive years

Note: A nuclear or radiological emergency is a nuclear safety incident: see subsection 21(2) of the Act.

(7) An ***emergency worker*** includes:

(a) a person authorised to conduct the regulated activity; and

(b) a person employed, either directly or indirectly, by a licence holder; and

(c) personnel of a response organisation, such as a police officer, firefighter, medical personnel, and a driver or a crew of a vehicle used for evacuation.

73 Effective doses

(1) For the purposes of section 72, a person's effective dose for a period that is relevant to the person under subsection (2) of this section is the sum of:

(a) the effective dose that the person receives, from a source outside the person's body, during the relevant period; and

(b) the person's committed effective dose, received from intakes during the relevant period, for the next 50 years.

(2) For the purposes of subsection (1), a period that is relevant to a person is:

(a) if the person is an occupationally exposed person—5 years; or

(b) if the person is a member of the public—1 year.

(3) Despite paragraph (1)(b), if the person is under 18 years of age, the committed effective dose must be worked out on the basis of the number of years calculated by subtracting the person's age, at the time of the calculation, from 70.

74 Annual equivalent dose limit for ionising radiation

Limit for occupational exposure of the lens of the eye

(1) For occupational exposure, the equivalent dose to the lens of the eye must not be greater than 20 mSv annually, averaged over 5 consecutive years.

(2) However, the equivalent dose to the lens of the eye for a person subject to occupational exposure must not, in a year, be greater than 50 mSv.

Limit for public exposure of the lens of the eye

(3) The equivalent dose to the lens of the eye for a person subject to public exposure must not, in a year, be greater than 15 mSv.

Limit for occupational exposure of hands and feet

(4) For occupational exposure, the annual equivalent dose to the hands and feet must not be greater than 500 mSv.

Limits for occupational exposure and public exposure of skin

(5) The annual equivalent dose to the skin must not be greater than:
  (a) for occupational exposure—500 mSv; and
  (b) for public exposure—50 mSv.

(6) The annual equivalent dose limit to the skin applies to the average dose received by any 1 cm^2 of skin.

Exception for emergency workers and helpers

(7) This section is subject to subsection 72(6).

75 Occupationally exposed persons

(1) It is a condition that the licence holder must:
  (a) identify all persons (the ***occupationally exposed persons***) who are, or could be, occupationally exposed to ionising radiation or high levels of non-ionising radiation in relation to the conduct of the regulated activity; and
  (b) ensure that each occupationally exposed person's age, and whether they have declared that they are pregnant or breastfeeding, can be effectively taken into account for the purposes of keeping exposure as low as reasonably achievable within the applicable dose limits; and
  (c) provide for a personal radiation monitoring service for each occupationally exposed person; and
  (d) record doses received by each occupationally exposed person, including results from the personal radiation monitoring and how doses were calculated; and
  (e) register each occupationally exposed person on the Australian National Radiation Dose Register; and
  (f) provide data on doses received by each occupationally exposed person to the Australian National Radiation Dose Register:
    (i) at least once every 3 months (beginning on the day the licence is issued); or
    (ii) if the Regulator has specified, as a condition for the purposes of paragraph 32(1)(c) or subsection 34(2) of the Act, that the licence

holder must provide data more frequently—at least as frequently as specified.

Dose record to be provided to occupationally exposed person

(2) It is a condition that the licence holder provides a copy of the dose record of an occupationally exposed person to the person:
  (a) annually until termination of the person's employment or contract; and
  (b) at the termination of the person's employment or contract; and
  (c) on request at any time during the period of the licence.

Audit and review

(3) It is a condition that the licence holder must:
  (a) for each period of 12 months during which the licence authorises the conduct of the activity (with the first of those periods beginning on the day the licence is issued), audit and review the doses received by occupationally exposed persons during that period for the purposes of optimising radiation protection in relation to the conduct of the regulated activity as required under subsection 69(1); and
  (b) cause the audit and review to be completed within 3 months after the end of the period to which the audit and review relates; and
  (c) within 14 days after the completion of the audit and review, provide the Regulator with a report on the outcomes of the review that includes details of:
    (i) the assessment of the doses received; and
    (ii) how any identified deficiencies in the optimisation of radiation protection were, or are proposed to be, rectified.

Note: The licence holder must receive approval from the Regulator before making a change identified in the review that is significant or may have significant implications for nuclear safety: see section 54.

76 Reporting—increases in radiation exposure

(1) Subsection (2) applies if the licence holder or any other person authorised to conduct the regulated activity becomes aware of any moderate or significant increase in the magnitude of individual doses or in the number of people who are exposed:
  (a) in relation to the conduct of the regulated activity; or
  (b) from any NNP material or NNP equipment or plant that are involved in the conduct of the regulated activity.

(2) It is a condition applying to both the licence holder and the other person that the licence holder or person must report the increase to the Regulator:
  (a) if the increase is significant—immediately after becoming aware of the increase; or
  (b) if the increase is moderate—within 24 hours after becoming aware of the increase.

(3) It is a condition applying to both the licence holder and any other person (the ***other authorised person***) authorised to conduct the regulated activity that if the significant increase involves:

(a) a person (whether or not an occupationally exposed person) being exposed to doses of a magnitude that breaches a condition in section 70 or 71 that applies to the licence holder or the other authorised person; or

(b) any other breach of a condition relating to dose limits that applies to the licence holder or the other authorised person;

the licence holder or the other authorised person must also report that fact under subsection (2).

Division 3—Additional conditions applying to licence authorising facility activity

77 Additional conditions for any kind of facility activity—risk levels and activity levels

(1) This section applies if the regulated activity authorised by the licence is a facility activity.

(2) It is a condition that the licence holder must maintain a current description of the level of nuclear safety risk posed by the regulated activity, having regard to the matters in paragraph 23(3)(b).

Note: Records must be kept: see section 62.

(3) It is a condition that the licence holder must measure and record the activity levels of the NNP facility.

Note: Records must be kept: see section 62.

78 Additional conditions for any kind of facility activity—sale, transfer or abandonment of a site, NNP facility or proposed NNP facility

(1) This section applies if the regulated activity authorised by the licence is a facility activity.

Sale or transfer by licence holder

(2) It is a condition that the licence holder must notify the Regulator of the proposed sale or transfer of:

(a) the site of the NNP facility or proposed NNP facility; or

(b) the NNP facility or proposed NNP facility;

before it is sold or transferred.

(3) It is a condition that the licence holder must not sell or transfer:

(a) the site of the NNP facility or proposed NNP facility; or

(b) the NNP facility or proposed NNP facility;

other than to a Commonwealth-related person that holds a licence authorising the conduct of a facility activity involving the site, NNP facility or proposed NNP facility.

Site, facility or proposed facility not to be abandoned

(4) It is a condition that:

(a) the site of the NNP facility or proposed NNP facility; or

(b) the NNP facility or proposed NNP facility;

is not abandoned.

No sale or transfer by person authorised under licence

(5) It is a condition applying to both the licence holder and any other person (the ***other authorised person***) authorised to conduct the regulated activity that the other authorised person must not sell or transfer:

(a) the site of the NNP facility or proposed NNP facility; or

(b) the NNP facility or proposed NNP facility.

79 Additional conditions—activity of preparing a site for an NNP facility in a designated zone

(1) This section applies if the regulated activity authorised by the licence is the facility activity of preparing a site for an NNP facility in a designated zone.

Plan for preparing the site

(2) It is a condition that the regulated activity is, so far as reasonably practicable, conducted in accordance with the plan for preparing the site for the proposed facility.

(3) It is a condition that the plan for preparing the site must ensure nuclear safety during the preparation of the site.

Note: This subsection does not limit what the licence holder may otherwise choose to deal with in the plan.

(4) It is a condition that the licence holder must ensure that the plan for preparing the site is effectively implemented and maintained throughout the period of the licence.

Note: The plan must be audited and reviewed every 3 years: see section 68.

Transitional arrangements

(5) If the licence is a transitional licence, it is a condition that the licence holder must, on the day the Act commences, provide information and documents that describe and document the plan for preparing the site for the facility to the Regulator.

80 Additional conditions—activity of constructing an NNP facility in a designated zone

(1) This section applies if the regulated activity authorised by the licence is the facility activity of constructing an NNP facility in a designated zone.

Final design

(2) It is a condition that the regulated activity is conducted in accordance with the final design of the proposed facility and its proposed operation, as that final design is proposed at the time of making the decision to issue the licence, as changed from time to time by the licence holder:

(a) in accordance with section 54; or

(b) to comply with a condition specified by the Regulator for the purposes of subsection 34(2) of the Act.

Construction plan

(3) It is a condition that the regulated activity is, so far as reasonably practicable, conducted in accordance with the construction plan for the facility.

(4) It is a condition that the construction plan must ensure nuclear safety during the construction of the facility.

Note: This subsection does not limit what the licence holder may otherwise choose to deal with in the plan.

(5) It is a condition that the licence holder must ensure that the construction plan is effectively implemented and maintained throughout the period of the licence.

Note: The plan must be audited and reviewed every 3 years: see section 68.

Permit to establish facility

(6) If the permit under the *Nuclear Non-Proliferation (Safeguards) Act 1987* to establish the facility was not provided to the Regulator under section 15 of this instrument, it is a condition that the licence holder must provide the permit to the Regulator before conducting the activity.

Transitional arrangements

(7) If the licence is a transitional licence:

(a) it is a condition that the licence holder must, on the day the Act commences, provide the following to the Regulator:

(i) information and documents that describe and document the construction plan for the facility;

(ii) the final design of the proposed facility and its proposed operation, as in effect immediately before the day the Act commences; and

(b) subsection (6) applies as if the reference to the licence holder providing the permit to the Regulator before conducting the activity were a reference to the licence holder providing the permit to the Regulator on the day the Act commences.

81 Additional conditions—activity of having possession or control of an NNP facility in a designated zone

(1) This section applies if the regulated activity authorised by the licence is the facility activity of having possession or control of an NNP facility in a designated zone.

Possession or control period plan

(2) It is a condition that the regulated activity is, so far as reasonably practicable, conducted in accordance with the possession or control period plan for the facility.

(3) It is a condition that the possession or control period plan must ensure nuclear safety during the possession or control period.

Note: This subsection does not limit what the licence holder may otherwise choose to deal with in the plan.

(4) It is a condition that the licence holder must ensure that the possession or control period plan is effectively implemented and maintained throughout the period of the licence.

Note: The plan must be audited and reviewed every 3 years: see section 68.

What must occur before any NNP facility or NNP equipment or plant is tested or operated

(5) It is a condition that the licence holder must ensure that no NNP facility or NNP equipment or plant involved in the conduct of the activity is tested or operated unless:

(a) effective safety mechanisms, devices or circuits are connected to the facility or equipment or plant to prevent or mitigate any nuclear safety hazards or risks and those mechanisms, devices or circuits are in good working order; and

(b) if the Regulator requests the licence holder to demonstrate that paragraph (a) has been complied with before the testing or operation—the licence holder provides the Regulator with information or documents to demonstrate that compliance.

Transitional arrangements

(6) If the licence is a transitional licence, it is a condition that the licence holder must, on the day the Act commences, provide information and documents that describe and document the possession or control period plan for the facility to the Regulator.

82 Additional conditions—activity of operating an NNP facility in a designated zone

(1) This section applies if the regulated activity authorised by the licence is the facility activity of operating an NNP facility in a designated zone.

Commissioning plan

(2) It is a condition that the regulated activity is, so far as reasonably practicable, conducted in accordance with the commissioning plan for the facility.

(3) It is a condition that the commissioning plan must ensure nuclear safety during the commissioning of the facility.

Note: This subsection does not limit what the licence holder may otherwise choose to deal with in the plan.

Operational plan

(4) It is a condition that the regulated activity is, so far as reasonably practicable, conducted in accordance with the operational plan for the facility.

(5) It is a condition that the operational plan must ensure nuclear safety during the operation of the facility.

Note: This subsection does not limit what the licence holder may otherwise choose to deal with in the plan.

Plans must be implemented and maintained

(6) It is a condition that the licence holder must ensure that the commissioning plan and the operational plan are effectively implemented and maintained throughout the period of the licence.

Note: The plans must be audited and reviewed every 3 years: see section 68.

Transitional arrangements

(7) If the licence is a transitional licence, it is a condition that the licence holder must, on the day the Act commences, provide information and documents that describe and document the commissioning plan for the facility and the operational plan for the facility to the Regulator.

83 Additional conditions—activity of decommissioning an NNP facility in a designated zone

(1) This section applies if the regulated activity authorised by the licence is the facility activity of decommissioning an NNP facility in a designated zone.

Decommissioning plan

(2) It is a condition that the regulated activity is, so far as reasonably practicable, conducted in accordance with the decommissioning plan for the facility.

(3) It is a condition that the decommissioning plan must ensure nuclear safety during and after the decommissioning of the facility.

Note: This subsection does not limit what the licence holder may otherwise choose to deal with in the plan.

(4) It is a condition that the licence holder must ensure that the decommissioning plan is effectively implemented and maintained throughout the period of the licence.

Note: The plan must be audited and reviewed every 3 years: see section 68.

Transitional arrangements

(5) If the licence is a transitional licence, it is a condition that the licence holder must, on the day the Act commences, provide information and documents that describe and document the decommissioning plan for the facility to the Regulator.

84 Additional conditions—activity of disposing of an NNP facility in a designated zone

(1) This section applies if the regulated activity authorised by the licence is the facility activity of disposing of an NNP facility in a designated zone.

Disposal plan

(2) It is a condition that the regulated activity is, so far as reasonably practicable, conducted in accordance with the disposal plan for the facility.

(3) It is a condition that the disposal plan must ensure nuclear safety during and after the disposal of the facility.

Note: This subsection does not limit what the licence holder may otherwise choose to deal with in the plan.

(4) It is a condition that the licence holder must ensure that the disposal plan is effectively implemented and maintained throughout the period of the licence.

Note: The plan must be audited and reviewed every 3 years: see section 68.

Transitional arrangements

(5) If the licence is a transitional licence, it is a condition that the licence holder must, on the day the Act commences, provide information and documents that describe and document the disposal plan for the facility to the Regulator.

85 Additional conditions—general requirements for plans required under this Division

(1) This section applies in relation to each plan for the regulated activity required under this Division.

(2) It is a condition that the plan must be as proposed at the time of making the decision to issue the licence, as changed from to time to time by the licence holder:

(a) in accordance with section 54; or

(b) to comply with a condition specified by the Regulator for the purposes of subsection 34(2) of the Act.

Note: The plan must comply with any relevant requirements specified in the ANNPS Licence Conditions Code: see section 56. That section does not limit what the licence holder may otherwise choose to deal with in the plan.

Transitional arrangements

(3) If the licence is a transitional licence, subsection (2) applies as if the reference to the plan as proposed at the time of making the decision to issue the licence were a reference to the plan as described and documented in the information and documents provided to the Regulator on the day the Act commences.

Note: For the requirements to provide such information and documents to the Regulator, see subsections 79(5), 80(7), 81(6), 82(7), 83(5) and 84(5).

Division 4—Additional conditions applying to licence authorising material activity

86 Additional conditions for any kind of material activity—maintaining inventory, information and documents

(1) This section applies if the regulated activity authorised by the licence is a material activity.

(2) It is a condition that the licence holder must:

(a) maintain a current inventory of any NNP material and NNP equipment or plant involved in the activity; and

(b) keep the information and documents specified in column 2 of the item in the table in subsection 30(3) up-to-date for any such NNP material and NNP equipment or plant.

Note: Records must be kept: see section 62.

87 Additional conditions for any kind of material activity—transport or movement of naval nuclear propulsion plant

(1) This section applies:

(a) if the regulated activity authorised by the licence is a material activity; and

(b) the activity includes:

(i) the movement within a designated zone of naval nuclear propulsion plant; or

(ii) the transport of naval nuclear propulsion plant into, or out of, a designated zone, other than on an operational AUKUS submarine.

(2) It is a condition that the licence holder must, before a particular movement or transport of naval nuclear propulsion plant:

(a) submit to the Regulator a plan and arrangements for the particular movement or transport; and

(b) obtain the approval of the Regulator for:

(i) the plan and arrangements; and

(ii) the movement or transport.

(3) It is a condition that the movement or transport of naval nuclear propulsion plant is conducted in accordance with the plan and arrangements as approved by the Regulator.

88 Additional conditions for any kind of material activity—transport of NNP material and NNP equipment or plant only as approved

(1) This section applies:

(a) if the regulated activity authorised by the licence is a material activity; and

(b) the activity includes the transport into, or out of, a designated zone of NNP material or NNP equipment or plant not covered by section 87, other than on an operational AUKUS submarine.

(2) It is a condition that the licence holder must obtain the approval of the Regulator for the transport of the NNP material or NNP equipment or plant before it is transported into, or out of, the designated zone.

Note: The transport must also be in accordance with the transport management plan for the activity: see section 89.

89 Additional conditions for any kind of material activity—transport management and movement plans

(1) This section applies if the regulated activity authorised by the licence is a material activity.

(2) This section does not apply to naval nuclear propulsion plant (which is dealt with in section 87).

Transport management plan

(3) It is a condition that the regulated activity is, so far as reasonably practicable, conducted in accordance with the transport management plan for transporting NNP material or NNP equipment or plant into, or out of, a designated zone for the activity.

Note 1: NNP material and NNP equipment or plant (other than naval nuclear propulsion plant) may only be transported into, or out of, the designated zone in which the activity is conducted with the Regulator's approval: see section 88.

Note 2: The transport of naval nuclear propulsion plant requires a specific plan, arrangements and the approval of the Regulator for each transport: see section 87.

(4) It is a condition that the transport management plan must ensure nuclear safety during, and control of, the transport of the NNP material or NNP equipment or plant into, or out of, the designated zone in which the regulated activity is conducted.

Note: This subsection does not limit what the licence holder may otherwise choose to deal with in the plan.

Movement plan

(5) It is a condition that the regulated activity is, so far as reasonably practicable, conducted in accordance with the movement plan for moving NNP material or NNP equipment or plant within a designated zone for the activity.

Note: The movement of naval nuclear propulsion plant requires a specific plan, arrangements and the approval of the Regulator for each movement: see section 87.

(6) It is a condition that the movement plan must ensure nuclear safety during, and control of, the movement of the NNP material or NNP equipment or plant within the designated zone in which the regulated activity is conducted.

Note: This subsection does not limit what the licence holder may otherwise choose to deal with in the plan.

Other requirements for plans

(7) It is a condition that the licence holder must ensure that the transport management plan and the movement plan are effectively implemented and maintained throughout the period of the licence.

Note: The plans must be audited and reviewed every 3 years: see section 68.

Transitional arrangements

(8) If the licence is a transitional licence it is a condition that the licence holder must, on the day the Act commences, provide information and documents that describe and document the transport management plan and the movement plan for the activity to the Regulator.

90 Additional conditions for activity of having possession or control of NNP material or NNP equipment or plant—sale, transfer or abandonment

(1) This section applies if the regulated activity authorised by the licence is the material activity of having possession or control of NNP material or NNP equipment or plant in a designated zone.

Sale or transfer by licence holder

(2) It is a condition that the licence holder must obtain approval from the Regulator for the sale or transfer of naval nuclear propulsion plant before it is sold or transferred.

(3) It is a condition that the licence holder must notify the Regulator of the proposed sale or transfer of NNP material, or NNP equipment or plant not covered by subsection (2), before it is sold or transferred.

(4) It is a condition that the licence holder must not sell or transfer NNP material, or NNP equipment or plant not covered by subsection (2), other than to a Commonwealth-related person that holds a licence authorising the conduct of a material activity involving the NNP material or NNP equipment or plant.

Material, equipment or plant not to be abandoned

(5) It is a condition that the NNP material or NNP equipment or plant is not abandoned.

No sale or transfer by person authorised under licence

(6) It is a condition applying to both the licence holder and any other person (the ***other authorised person***) authorised to conduct the regulated activity that the other authorised person must not sell or transfer the NNP material or NNP equipment or plant.

91 Additional conditions for activity of having possession or control of NNP material or NNP equipment or plant—plan for possession or control

(1) This section applies if the regulated activity authorised by the licence is the material activity of having possession or control of NNP material or NNP equipment or plant in a designated zone.

(2) It is a condition that the regulated activity is, so far as reasonably practicable, conducted in accordance with the plan for the possession or control of the NNP material or NNP equipment or plant.

(3) It is a condition that the plan must ensure nuclear safety during the conduct of the regulated activity.

Note: This subsection does not limit what the licence holder may otherwise choose to deal with in the plan.

(4) It is a condition that the licence holder must ensure that the plan is effectively implemented and maintained throughout the period of the licence.

Note: The plan must be audited and reviewed every 3 years: see section 68.

92 Additional conditions—activity of using NNP material in a designated zone

(1) This section applies if the regulated activity authorised by the licence is the material activity of using NNP material in a designated zone.

(2) It is a condition that the regulated activity is, so far as reasonably practicable, conducted in accordance with the plan for using the NNP material.

(3) It is a condition that the plan must ensure nuclear safety during the conduct of the regulated activity.

Note: This subsection does not limit what the licence holder may otherwise choose to deal with in the plan.

(4) It is a condition that the licence holder must ensure that the plan is effectively implemented and maintained throughout the period of the licence.

Note: The plan must be audited and reviewed every 3 years: see section 68.

93 Additional conditions—activity of using or operating NNP equipment or plant in a designated zone

(1) This section applies if the regulated activity authorised by the licence is the material activity of using or operating NNP equipment or plant in a designated zone.

(2) It is a condition that the regulated activity is, so far as reasonably practicable, conducted in accordance with the plan for using or operating the NNP equipment or plant.

(3) It is a condition that the plan must ensure nuclear safety during the conduct of the regulated activity.

Note: This subsection does not limit what the licence holder may otherwise choose to deal with in the plan.

(4) It is a condition that the licence holder must ensure that the plan is effectively implemented and maintained throughout the period of the licence.

Note: The plan must be audited and reviewed every 3 years: see section 68.

94 Additional conditions—activity of maintaining, storing or disposing of NNP material or NNP equipment or plant in a designated zone

(1) This section applies if the regulated activity authorised by the licence is the material activity of maintaining, storing or disposing of NNP material or NNP equipment or plant in a designated zone.

(2) It is a condition that the regulated activity is, so far as reasonably practicable, conducted in accordance with the plan for maintaining, storing or disposing of NNP material or NNP equipment or plant.

(3) It is a condition that the plan must ensure nuclear safety during the conduct of the regulated activity.

Note: This subsection does not limit what the licence holder may otherwise choose to deal with in the plan.

(4) It is a condition that the licence holder must ensure that the plan is effectively implemented and maintained throughout the period of the licence.

Note: The plan must be audited and reviewed every 3 years: see section 68.

95 Additional conditions—general requirements for certain plans required under this Division

(1) This section applies in relation to each plan for the regulated activity required under this Division, other than a plan required under section 87.

(2) It is a condition that the plan must be as proposed at the time of making the decision to issue the licence, as changed from to time to time by the licence holder:

(a) in accordance with section 54; or

(b) to comply with a condition specified by the Regulator for the purposes of subsection 34(2) of the Act.

Note: The plan must comply with any relevant requirements specified in the ANNPS Licence Conditions Code: see section 56. That section does not limit what the licence holder may otherwise choose to deal with in the plan.

Transitional arrangements

(3) If the licence is a transitional licence, subsection (2) applies as if the reference to the plan as proposed at the time of making the decision to issue the licence were a reference to the plan as described and documented in the information and documents provided to the Regulator on the day the Act commences.

Note: For the requirements to provide such information and documents to the Regulator, see subsection 89(8).

Part 5—Nuclear safety incidents

96 Simplified outline of this Part

Licence holders are subject to a nuclear safety duty in section 21 of the Act to report nuclear safety incidents.

Nuclear safety incidents include incidents that relate to nuclear safety and are of a kind prescribed in section 97 of this instrument.

A report of a nuclear safety incident provided under subsection 21(1) of the Act must contain the information prescribed in section 98 of this instrument.

A licence authorising a facility activity or material activity is subject to the conditions in section 99 in relation to a nuclear safety incident that the licence holder must report.

97 Kinds of incidents that are nuclear safety incidents

(1) For the purposes of subparagraph 21(2)(b)(iii) of the Act, the following kinds of incidents, that relate to nuclear safety and occur in relation to the conduct of a regulated activity, are prescribed:

(a) an uncontrolled emission, escape, spillage or leakage of:

(i) NNP material; or

(ii) NNP equipment or plant;

(b) an uncontrolled emission, escape, spillage or leakage of ionising radiation that results in a significant increase in the magnitude of individual doses;

(c) an uncontrolled exposure to harmful non-ionising radiation:

(i) from equipment or plant described in section 11 of this instrument; and

(ii) that results in an exposure limit specified in subsection (2) of this section being exceeded;

(d) a theft or loss of NNP material or NNP equipment or plant;

(e) damage to a package (however described) that contains NNP material or NNP equipment or plant;

(f) a near miss that could have resulted in any of the following:

(i) a significant increase in the magnitude of individual doses of ionising radiation;

(ii) an applicable dose limit under section 72 or 74 for a person being exceeded;

(iii) an exposure limit, specified in subsection (2), being exceeded in relation to harmful non-ionising radiation from equipment or plant described in section 11.

(2) For the purposes of subparagraphs (1)(c)(ii) and (1)(f)(iii), the following, to the extent they relate to naval nuclear propulsion, are specified as exposure limits:

(a) the reference levels mentioned in the *ICNIRP Guidelines For Limiting Exposure To Time-Varying Electric And Magnetic Fields (1 Hz—100 kHz)*, published by the International Commission on Non-Ionizing Radiation Protection, as existing on 4 April 2025;

(b) the maximum permissible exposure limits mentioned in AS/NZS IEC 60825.1:2014;

(c) the exposure limits mentioned in AS/NZS IEC 62471:2011;

(d) the exposure limits mentioned in the *ICNIRP Guidelines On Limits Of Exposure To Static Magnetic Fields*, published by the International Commission on Non-Ionizing Radiation Protection, as existing on 4 April 2025;

(e) the exposure limits mentioned in the *ICNIRP Guidelines for Limiting Exposure to Electromagnetic Fields (100 kHz to 300 GHz)*, published by the International Commission on Non-Ionizing Radiation Protection, as existing on 4 April 2025.

Note: The documents mentioned in paragraphs (a), (d) and (e) could in 2025 be viewed on the website of the International Commission on Non-Ionizing Radiation Protection (https://www.icnirp.org).

98 Information to be given in report of a nuclear safety incident

For the purposes of paragraph 21(3)(d) of the Act, the information to be contained in a report given under subsection 21(1) of the Act of a nuclear safety incident that occurs in relation to a regulated activity authorised by a licence is as follows:

(a) the name of, and reference number for, the licence holder;

(b) the date and time the report is given;

(c) the name and role of the person giving the report;

(d) a description of any NNP facility, NNP material or NNP equipment or plant involved in the incident;

(e) a description of the incident, including:

(i) the date and time of the incident; and

(ii) the suspected cause of the incident; and

(iii) details of any deaths of, serious injuries to, or serious illnesses in, individuals that were, or could have been, a result of the incident; and

(iv) details of any serious environmental incidents that were, or could have been, a result of the incident;

(f) a description of steps that have been taken or are proposed to be taken to:

(i) manage or respond to the incident; or

(ii) mitigate the consequences of the incident; or

(iii) preserve the site of the incident;

(g) the likelihood that another nuclear safety incident would or could occur as a result of the incident;

(h) if the person giving the report is aware of any other information that is relevant to the effective management of, or response to, the incident—that information.

Note 1: The report must be given immediately after the licence holder becomes aware of the incident. It may be given orally but must be confirmed by written notice as soon as practicable after being given orally: see paragraphs 21(3)(a) and (b) of the Act.

Note 2: This section does not limit what the person giving the report may otherwise choose to include in it.

99 Actions after initial report of a nuclear safety incident

(1) For the purposes of paragraph 32(1)(b) of the Act, a licence authorising a facility activity or a material activity is subject to the conditions prescribed by this section in relation to a nuclear safety incident that the licence holder must report under section 21 of the Act.

Note: Part 4 of this instrument prescribes other conditions to which the licence is subject.

Information or action required to ensure effective management of nuclear safety incident

(2) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that the licence holder or other person must, if requested by the Regulator:

(a) provide information and documents that the Regulator requires to be assured that the nuclear safety incident is being effectively managed; and

(b) take any action that the Regulator requires to be assured that the nuclear safety incident is being effectively managed.

Preservation of incident site etc.

(3) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that the licence holder or other person must, so far as reasonably practicable and subject to subsection (4), ensure that the site of the nuclear safety incident, including any naval nuclear propulsion plant, vessel, substance, structure or thing associated with the incident, is not disturbed until the Regulator directs that the site of the incident no longer needs to be preserved.

(4) In complying with the condition prescribed in subsection (3), a person is not prevented from taking any action:

(a) to assist an injured person; or

(b) to remove a deceased person; or

(c) that is essential to make the site of the incident safe; or

(d) to minimise the risk of a further nuclear safety incident; or

(e) that is associated with a police investigation; or

(f) for which the Regulator has given approval in relation to the nuclear safety incident.

Compliance with emergency management and response plan

(5) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that the licence holder or other person must, as soon as practicable after there is no longer a need to preserve the site of the nuclear safety incident, and in any event, within 6 months after the

incident occurred, provide information and documents to the Regulator that demonstrate:

(a) action that has been, or is proposed to be, taken to manage or respond to the nuclear safety incident; and

(b) the extent to which that action deviates, or is proposed to deviate, from the emergency management and response plan for the regulated activity.

Note: For the emergency management and response plan: see section 61.

Implementation of recommendations

(6) It is a condition applying to both the licence holder and any other person authorised to conduct the regulated activity that the licence holder or other person must, subject to any approval under subsection (7):

(a) implement any recommendations identified in the following:

(i) a final report of the Regulator's investigation of the nuclear safety incident;

(ii) the final independent investigation report of the nuclear safety incident (see subsection (8));

(iii) a final report of an internal investigation by the licence holder of the nuclear safety incident; and

(b) provide information and documents to the Regulator to demonstrate that the licence holder has implemented all recommendations for preventing or mitigating the occurrence of nuclear safety incidents.

(7) If the licence holder or person proposes not to implement a recommendation identified in a report referred to in subsection (6), the licence holder or person must:

(a) obtain approval for not implementing the recommendation from the Regulator; and

(b) explain to the Regulator why implementing the recommendation is not possible, feasible or otherwise desirable; and

(c) provide the Regulator with any information or documents the Regulator reasonably requires to decide whether to give the approval.

Independent investigation of the nuclear safety incident

(8) It is a condition that the licence holder must:

(a) as soon as practicable after the nuclear safety incident occurred, arrange for a suitably qualified and experienced independent person to investigate and report on the nuclear safety incident; and

(b) provide any interim reports and the final report on the investigation to the Regulator within 7 days of receiving that report.

(9) A report for the purpose of paragraph (8)(a) must address (but is not to be limited to) the following:

(a) the events and circumstances that lead to the nuclear safety incident;

(b) the facts of the nuclear safety incident;

(c) the facts of what occurred during the nuclear safety incident and the response to it;

(d) the essential factors and causes of the nuclear safety incident;

(e) conclusions as to the cause of the nuclear safety incident or other issues identified in the investigation;

(f) recommendations for preventing or mitigating the occurrence of nuclear safety incidents.

Part 6—Suspension of licences and review of licence decisions

100 Simplified outline of this Part

Under section 35 of the Act, the Regulator may, and in certain circumstances must, suspend a licence. The default period of suspension is 12 months (see section 101 of this instrument). However, the Regulator may, under subparagraph 35(5)(b)(i) of the Act, specify a shorter period.

Internal review may be sought for any decision of the Regulator in relation to a licence made under Part 3 of the Act (other than a decision made under subsection 35(3) of the Act which requires the Regulator to suspend a licence in certain circumstances). These decisions are called original decisions. An application for internal review of an original decision must contain the information in section 102 of this instrument.

101 Period of licence suspension

Maximum period of licence suspension

(1) For the purposes of subparagraph 35(5)(b)(i) of the Act, the period of 12 months is prescribed.

Note: This means that the period specified by the Regulator as the period for which a licence suspension remains in force must not exceed 12 months.

Default period

(2) For the purposes of subparagraph 35(5)(b)(ii) of the Act, the period of 12 months is prescribed.

Note: This means that if the Regulator does not specify a period, a licence suspension remains in force until the end of the period of 12 months.

102 Information to be included in application for review of licence decision

For the purposes of paragraph 38(5)(b) of the Act, the information to be contained in an application, under subsection 38(4) of the Act, for review of an original decision is as follows:

(a) the name and contact details of the applicant for review;
(b) the reference number for the application for the licence or the reference number for the licence;
(c) details of the original decision, including the date and reference number of the original decision;
(d) the applicant's reasons for making the application for review;
(e) any other information relating to the original decision or the applicant's reasons for review that the applicant wishes to be taken into account in the review.

Part 7—Other matters

103 Simplified outline of this Part

The annual report prepared for the Regulator and given to the Minister under section 46 of the *Public Governance, Performance and Accountability Act 2013* must also include the matters prescribed in section 104 of this instrument.

This Part makes provision for the interaction between this Act and State and Territory laws, and international agreements etc.

Under section 144 of the Act, the Regulator may, in writing, exempt a specified person from:

(a) the application of subsection 19(1) of the Act in relation to a regulated activity; or

(b) the application of a specified licence condition.

An application by a person for an exemption must be in accordance with section 107 of this instrument.

104 Annual report—other matters to be included

(1) For the purposes of section 122 of the Act, the matters to be included in the annual report for a reporting period are as follows:

(a) details of any breach of licence conditions, by a licence holder or any other person authorised under a licence, that the Director-General is aware has occurred during the period;

(b) details of directions given by inspectors under section 75 of the Act during the period;

(c) details of improvement notices given by inspectors under section 77 of the Act during the period;

(d) the number of each of the following, during the period:

(i) licence applications;

(ii) licences issued;

(iii) licences refused to be issued;

(iv) licences varied;

(v) licences suspended;

(vi) licences cancelled;

(vii) licences surrendered;

(e) the number of nuclear safety incidents that the Director-General is aware have occurred in relation to a regulated activity during the period;

(f) the number of other incidents that the Director-General is aware have occurred, during the period, in relation to regulated activities conducted under a licence, that:

(i) relate to nuclear safety; and

(ii) resulted in, or could have resulted in, significant injury to or significant illness in an individual or a significant environmental incident;

(g) the number of other frequent incidents that the Director-General is aware have occurred, during the period, in relation to regulated activities conducted under a licence, that:

(i) relate to nuclear safety; and

(ii) resulted in, or could have resulted in, lower level injury to or illness in an individual or a lower level environmental incident;

(h) the number of court proceedings relating to an offence or contravention of a civil penalty provision of the Act brought during the period;

(i) the number of reviews (other than internal reviews) of decisions made under the Act during the period;

(j) the number of activities involving the use of the monitoring powers that concluded during the period;

(k) the number of activities involving the use of the investigation powers that concluded during the period;

(l) the number of warrants issued under the Act during the period;

(m) the number of exemptions granted under section 144 of the Act during the period, and the following details in relation to each:

(i) the name of the exempted person;

(ii) the regulated activity to which the exemption relates;

(iii) the provision of the Act, or licence condition, to which the exemption relates;

(iv) any conditions to which the exemption is subject;

(v) any breach of a condition (specified in an instrument of exemption under subsection 144(3) of the Act) by the exempted person that the Director-General is aware has occurred during the period;

(vi) any event or circumstance, that would have resulted in a breach of any licence conditions that would have applied to the exempted person if the exempted person were authorised under a licence to conduct the regulated activity, that the Director-General is aware has occurred during the period.

(2) However, the report is not required to include details of any of the above matters if, in the opinion of the Director-General, the inclusion may prejudice the security or defence of the Commonwealth.

105 State and Territory laws that do not apply in relation to a regulated activity

(1) For the purposes of section 135 of the Act:

(a) subsection (2) of this section prescribes State or Territory laws; and

(b) subsection (3) prescribes provisions of State or Territory laws;

that do not apply in relation to a regulated activity.

(2) The following laws of a State or Territory are prescribed:

(a) the *Protection from Harmful Radiation Act 1990* (NSW);

(b) the *Radiation Act 2005* (Vic.);

(c) the *Radiation Safety Act 1999* (Qld);
(d) the *Radiation Safety Act 1975* (WA);
(e) the *Radiation Protection and Control Act 2021* (SA);
(f) the *Radiation Protection Act 2005* (Tas.);
(g) the *Radiation Protection Act 2006* (ACT);
(h) the *Radiation Protection Act 2004* (NT).

(3) Any provision, of any other State or Territory law, that regulates nuclear activities is prescribed.

Note: For example, this includes provisions regulating the disposal of nuclear waste, the handling or storage of nuclear material or material contaminated with radiation, or the design, construction, operation, decommissioning or disposal of nuclear facilities.

(4) Subsection (3) does not apply to a provision of a law that is predominately for the purposes of:
(a) regulating work or occupational health and safety; or
(b) protecting the environment.

106 Obligations under international agreements that a person must have regard to when performing functions under the Act

For the purposes of section 136 of the Act, the Agreement among the Government of Australia, the Government of the United Kingdom of Great Britain and Northern Ireland, and the Government of the United States of America for Cooperation Related to Naval Nuclear Propulsion, done at Washington on 5 August 2024, as in force for Australia at the commencement of this instrument, is prescribed.

Note: The Agreement among the Government of Australia, the Government of the United Kingdom of Great Britain and Northern Ireland, and the Government of the United States of America for Cooperation Related to Naval Nuclear Propulsion is in Australian Treaty Series 2025 No. 5 ([2025] ATS 5) and could in 2025 be viewed in the Australian Treaties Library on the AustLII website (http://www.austlii.edu.au).

107 Application for exemption from a provision of Act or licence condition

For the purposes of paragraph 144(2)(a) of the Act, an application for an exemption to be granted under subsection (1) of that section must be in writing, in the approved form (if any), and include the following:
(a) the name of the person to be exempted;
(b) the name and contact details of the applicant;
(c) if the application is in relation to an NNP facility, NNP material, or NNP equipment or plant, that is covered by a licence—the reference number for the licence;
(d) whether the application seeks an exemption from subsection 19(1) of the Act or from a licence condition;
(e) if the application seeks an exemption from subsection 19(1) of the Act, to allow a person who is not authorised under a licence to conduct a regulated activity—an explanation of the operational imperative for seeking the exemption;

(f) if the application seeks an exemption from a particular licence condition—the licence condition;

(g) the period for which the exemption is sought including the period's start date and end date;

(h) reasons why the exemption is sought;

(i) an explanation of why the applicant believes that granting the exemption would not negatively impact the following:

(i) nuclear safety;

(ii) the objects of the Act;

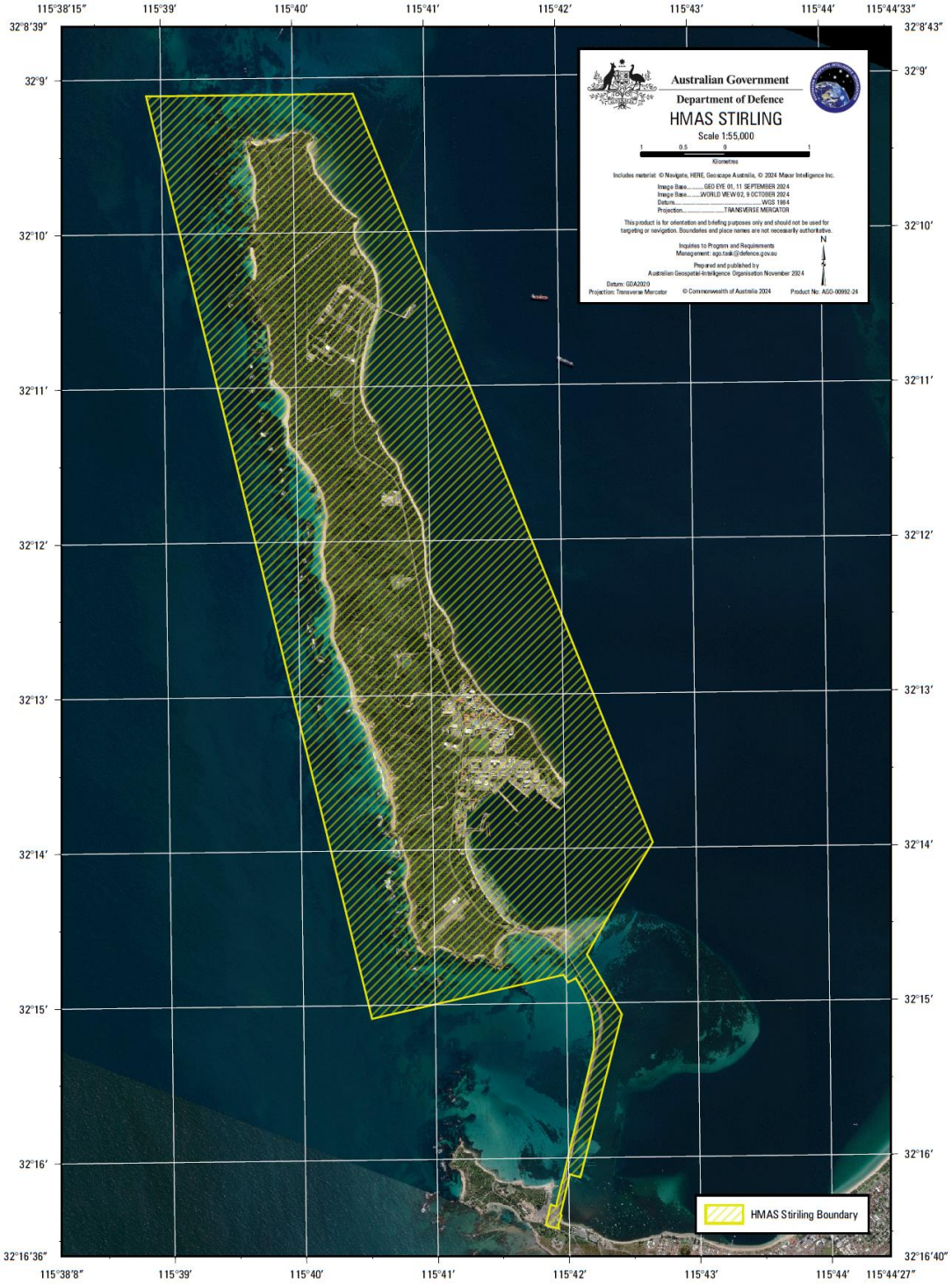
(iii) the ability of any person conducting a regulated activity covered by, or related to, the application for exemption, to comply with the nuclear safety duties applying to the person under Division 2 of Part 2 of the Act;

(j) any other information the applicant wishes the Regulator to consider in determining the application.

Schedule 1—Designated zones

Note: See sections 8 and 9.

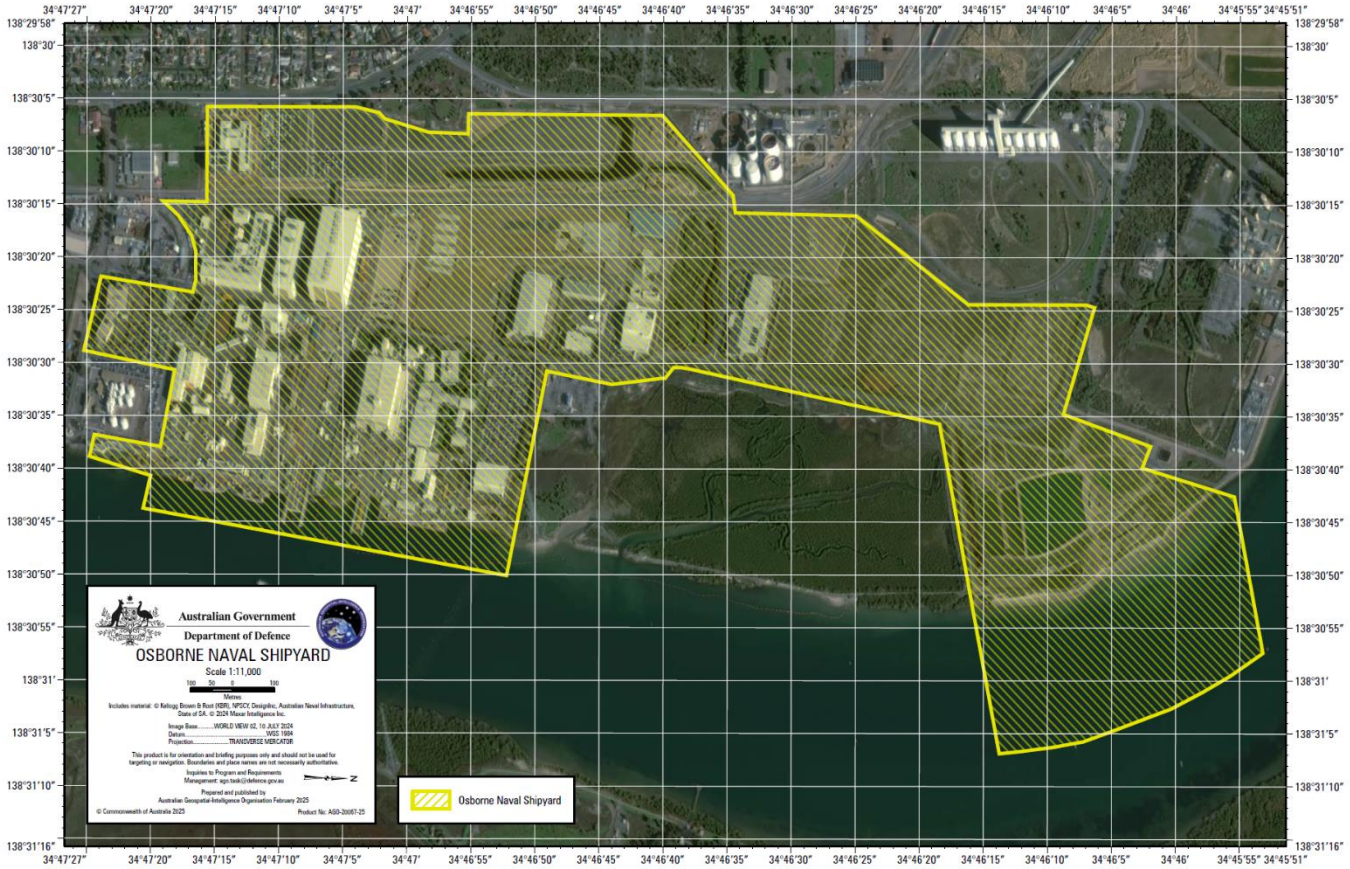
1 Stirling designated zone (the area known as HMAS *Stirling* at Garden Island in Western Australia)



Schedule 1 Designated zones

Clause 2

2 Osborne designated zone (the area known as Osborne Naval Shipyard in South Australia)



Schedule 2—Activity values for nuclides

Note: See sections 5 and 6.

Part 1—Activity values for nuclides

1 Activity values for nuclides

For the purposes of subsection 5(1), the activity value for a nuclide mentioned in an item in column 1 of the following table is as follows:

(a) if the nuclide is in solid form—the activity value specified in column 2 of the item;

(b) if the nuclide is in liquid form—the activity value specified in column 3 of the item;

(c) if the nuclide is in the form of gas or vapour—the activity value specified in column 4 of the item.

Activity values for nuclides

Item	Column 1 Nuclide	Column 2 Activity value (Bq) for nuclide in solid form	Column 3 Activity value for nuclide in liquid form (Bq)	Column 4 Activity value for nuclide in form of gas or vapour (Bq)
1	H-3	1×10^9	2.0×10^{11}	1.0×10^{12}
2	Be-7	1×10^7		
3	Be-10	1×10^6		
4	C-11	1×10^6		
5	C-14	1×10^7	1.8×10^8	1.0×10^{11}
6	N-13	1×10^9		
7	Ne-19	1×10^9		
8	O-15	1×10^9		
9	F-18	1×10^6	2.3×10^9	2.5×10^{13}
10	Na-22	1×10^6	1.0×10^6	1.0×10^7
11	Na-24	1×10^5	1.0×10^8	1.0×10^{10}
12	Mg-28	1×10^5		
13	Al-26	1×10^5		
14	Si-31	1×10^6		
15	Si-32	1×10^6		
16	P-32	1×10^5	1.0×10^7	1.0×10^9
17	P-33	1×10^8	3.0×10^8	3.0×10^{10}
18	S-35	1×10^8		
19	S-35 (inorganic)		3.3×10^8	1.0×10^9
20	Cl-36	1×10^6	7.1×10^6	1.0×10^8
21	Cl-38	1×10^5		

Schedule 2 Activity values for nuclides
Part 1 Activity values for nuclides

Clause 1

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
22	Cl-39	1×10^5		
23	Ar-37	1×10^8		
24	Ar-39	1×10^4		
25	Ar-41	1×10^9		
26	K-40	1×10^6		
27	K-42	1×10^6		
28	K-43	1×10^6		
29	K-44	1×10^5		
30	K-45	1×10^5		
31	Ca-41	1×10^7		
32	Ca-45	1×10^7	3.0×10^9	1.0×10^9
33	Ca-47	1×10^6		
34	Sc-43	1×10^6		
35	Sc-44	1×10^5		
36	Sc-45	1×10^7		
37	Sc-46	1×10^6		
38	Sc-47	1×10^6		
39	Sc-48	1×10^5		
40	Sc-49	1×10^5		
41	Ti-44	1×10^5		
42	Ti-45	1×10^6		
43	V-47	1×10^5		
44	V-48	1×10^5		
45	V-49	1×10^7		
46	Cr-48	1×10^6		
47	Cr-49	1×10^6		
48	Cr-51	1×10^7	1.0×10^9	1.0×10^{10}
49	Mn-51	1×10^5		
50	Mn-52	1×10^5		
51	Mn-52m	1×10^5		
52	Mn-53	1×10^9		
53	Mn-54	1×10^6		
54	Mn-56	1×10^5		
55	Fe-52	1×10^6		
56	Fe-55	1×10^6		
57	Fe-59	1×10^6	1.0×10^7	1.0×10^9

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
58	Fe-60	1×10^5		
59	Co-55	1×10^6		
60	Co-56	1×10^5		
61	Co-57	1×10^6	6.3×10^8	1.0×10^{10}
62	Co-58	1×10^6		
63	Co-58m	1×10^7		
64	Co-60	1×10^5	5.6×10^6	8.3×10^9
65	Co-60m	1×10^6		
66	Co-61	1×10^6		
67	Co-62m	1×10^5		
68	Ni-56	1×10^6		
69	Ni-57	1×10^6		
70	Ni-59	1×10^8		
71	Ni-63	1×10^8	6.3×10^{10}	8.3×10^{12}
72	Ni-65	1×10^6		
73	Ni-66	1×10^7		
74	Cu-60	1×10^5		
75	Cu-61	1×10^6		
76	Cu-64	1×10^6		
77	Cu-67	1×10^6		
78	Zn-62	1×10^6		
79	Zn-63	1×10^5		
80	Zn-65	1×10^6	7.0×10^6	3.0×10^{10}
81	Zn-69	1×10^6		
82	Zn-69m	1×10^6		
83	Zn-71m	1×10^6		
84	Zn-72	1×10^6		
85	Ga-65	1×10^5		
86	Ga-66	1×10^5		
87	Ga-67	1×10^6	1.0×10^9	1.0×10^{11}
88	Ga-68	1×10^5		
89	Ga-70	1×10^6		
90	Ga-72	1×10^5		
91	Ga-73	1×10^6		
92	Ge-66	1×10^6		
93	Ge-67	1×10^5		

Schedule 2 Activity values for nuclides
Part 1 Activity values for nuclides

Clause 1

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
94	Ge-68[a]	1×10^5		
95	Ge-69	1×10^6		
96	Ge-71	1×10^8		
97	Ge-75	1×10^6		
98	Ge-77	1×10^5		
99	Ge-78	1×10^6		
100	As-69	1×10^5		
101	As-70	1×10^5		
102	As-71	1×10^6		
103	As-72	1×10^5		
104	As-73	1×10^7		
105	As-74	1×10^6		
106	As-76	1×10^5		
107	As-77	1×10^6		
108	As-78	1×10^5		
109	Se-70	1×10^6		
110	Se-73	1×10^6		
111	Se-73m	1×10^6		
112	Se-75	1×10^6		
113	Se-79	1×10^7		
114	Se-81	1×10^6		
115	Se-81m	1×10^7		
116	Se-83	1×10^5		
117	Br-74	1×10^5		
118	Br-74m	1×10^5		
119	Br-75	1×10^6		
120	Br-76	1×10^5		
121	Br-77	1×10^6		
122	Br-80	1×10^5		
123	Br-80m	1×10^7		
124	Br-82	1×10^6		
125	Br-83	1×10^6		
126	Br-84	1×10^5		
127	Kr-74	1×10^9		
128	Kr-76	1×10^9		
129	Kr-77	1×10^9		

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
130	Kr-79	1×10^5		
131	Kr-81	1×10^7		
132	Kr-81m	1×10^{10}		
133	Kr-83m	1×10^{12}		
134	Kr-85	1×10^4		7.7×10^{15}
135	Kr-85m	1×10^{10}		
136	Kr-87	1×10^9		
137	Kr-88	1×10^9		
138	Rb-79	1×10^5		
139	Rb-81	1×10^6		
140	Rb-81m	1×10^7		
141	Rb-82m	1×10^6		
142	Rb-83[a]	1×10^6		
143	Rb-84	1×10^6		
144	Rb-86	1×10^5		
145	Rb-87	1×10^7		
146	Rb-88	1×10^5		
147	Rb-89	1×10^5		
148	Sr-80	1×10^7		
149	Sr-81	1×10^5		
150	Sr-82[a]	1×10^5		
151	Sr-83	1×10^6		
152	Sr-85	1×10^6		
153	Sr-85m	1×10^7		
154	Sr-87m	1×10^6		
155	Sr-89	1×10^6	2.0×10^9	1.0×10^9
156	Sr-90[a]	1×10^4		
157	Sr-90		1.0×10^7	3.0×10^{10}
158	Sr-91	1×10^5		
159	Sr-92	1×10^6		
160	Y-86	1×10^5		
161	Y-86m	1×10^7		
162	Y-87[a]	1×10^6		
163	Y-88	1×10^6		
164	Y-90	1×10^5	4.2×10^{10}	1.0×10^{11}
165	Y-90m	1×10^6		

Schedule 2 Activity values for nuclides
Part 1 Activity values for nuclides

Clause 1

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
166	Y-91	1×10^6		
167	Y-91m	1×10^6		
168	Y-92	1×10^5		
169	Y-93	1×10^5		
170	Y-94	1×10^5		
171	Y-95	1×10^5		
172	Zr-86	1×10^7		
173	Zr-88	1×10^6		
174	Zr-89	1×10^6		
175	Zr-93[a]	1×10^7		
176	Zr-95	1×10^6		
177	Zr-97[a]	1×10^5		
178	Nb-88	1×10^5		
179	Nb-89	1×10^5		
180	Nb-89m	1×10^5		
181	Nb-90	1×10^5		
182	Nb-93m	1×10^7		
183	Nb-94	1×10^6		
184	Nb-95	1×10^6		
185	Nb-95m	1×10^7		
186	Nb-96	1×10^5		
187	Nb-97	1×10^6		
188	Nb-98	1×10^5		
189	Mo-90	1×10^6		
190	Mo-93	1×10^8		
191	Mo-93m	1×10^6		
192	Mo-99	1×10^6	1.0×10^9	1.0×10^{10}
193	Mo-101	1×10^6		
194	Tc-93	1×10^6		
195	Tc-93m	1×10^6		
196	Tc-94	1×10^6		
197	Tc-94m	1×10^5		
198	Tc-95	1×10^6		
199	Tc-95m	1×10^6		
200	Tc-96	1×10^6		
201	Tc-96m	1×10^7		

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
202	Tc-97	1×10^8		
203	Tc-97m	1×10^7		
204	Tc-98	1×10^6		
205	Tc-99	1×10^7	2.0×10^6	1.0×10^8
206	Tc-99m	1×10^7	7.0×10^8	1.0×10^{12}
207	Tc-101	1×10^6		
208	Tc-104	1×10^5		
209	Ru-94	1×10^6		
210	Ru-97	1×10^7		
211	Ru-103	1×10^6		
212	Ru-105	1×10^6		
213	Ru-106[a]	1×10^5		
214	Rh-99	1×10^6		
215	Rh-99m	1×10^6		
216	Rh-100	1×10^6		
217	Rh-101	1×10^7		
218	Rh-101m	1×10^7		
219	Rh-102	1×10^6		
220	Rh-102m	1×10^6		
221	Rh-103m	1×10^8		
222	Rh-105	1×10^7		
223	Rh-106m	1×10^5		
224	Rh-107	1×10^6		
225	Pd-100	1×10^7		
226	Pd-101	1×10^6		
227	Pd-103	1×10^8		
228	Pd-107	1×10^8		
229	Pd-109	1×10^6		
230	Ag-102	1×10^5		
231	Ag-103	1×10^6		
232	Ag-104	1×10^6		
233	Ag-104m	1×10^6		
234	Ag-105	1×10^6		
235	Ag-106	1×10^6		
236	Ag-106m	1×10^6		
237	Ag-108m[a]	1×10^6		

Schedule 2 Activity values for nuclides
Part 1 Activity values for nuclides

Clause 1

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
238	Ag-110m	1×10^6		
239	Ag-111	1×10^6		
240	Ag-112	1×10^5		
241	Ag-115	1×10^5		
242	Cd-104	1×10^7		
243	Cd-107	1×10^7		
244	Cd-109	1×10^6		
245	Cd-113	1×10^6		
246	Cd-113m	1×10^6		
247	Cd-115	1×10^6		
248	Cd-115m	1×10^6		
249	Cd-117	1×10^6		
250	Cd-117m	1×10^6		
251	In-109	1×10^6		
252	In-110	1×10^6		
253	In-110m	1×10^5		
254	In-111	1×10^6	1.0×10^9	1.0×10^{10}
255	In-112	1×10^6		
256	In-113m	1×10^6		
257	In-114	1×10^5		
258	In-114m	1×10^6		
259	In-115	1×10^5		
260	In-115m	1×10^6		
261	In-116m	1×10^5		
262	In-117	1×10^6		
263	In-117m	1×10^6		
264	In-119m	1×10^5		
265	Sn-110	1×10^7		
266	Sn-111	1×10^6		
267	Sn-113	1×10^7		
268	Sn-117m	1×10^6		
269	Sn-119m	1×10^7		
270	Sn-121	1×10^7		
271	Sn-121m[a]	1×10^7		
272	Sn-123	1×10^6		
273	Sn-123m	1×10^6		

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
274	Sn-125	1×10^5		
275	Sn-126[a]	1×10^5		
276	Sn-127	1×10^6		
277	Sn-128	1×10^6		
278	Sb-115	1×10^6		
279	Sb-116	1×10^6		
280	Sb-116m	1×10^5		
281	Sb-117	1×10^7		
282	Sb-118m	1×10^6		
283	Sb-119	1×10^7		
284	Sb-120	1×10^6		
285	Sb-120m	1×10^6		
286	Sb-122	1×10^4		
287	Sb-124	1×10^6		
288	Sb-124m	1×10^6		
289	Sb-125	1×10^6		
290	Sb-126	1×10^5		
291	Sb-126m	1×10^5		
292	Sb-127	1×10^6		
293	Sb-128	1×10^5		
294	Sb-128m	1×10^5		
295	Sb-129	1×10^6		
296	Sb-130	1×10^5		
297	Sb-131	1×10^6		
298	Te-116	1×10^7		
299	Te-121	1×10^6		
300	Te-121m	1×10^6		
301	Te-123	1×10^6		
302	Te-123m	1×10^7		
303	Te-125m	1×10^7		
304	Te-127	1×10^6		
305	Te-127m	1×10^7		
306	Te-129	1×10^6		
307	Te-129m	1×10^6		
308	Te-131	1×10^5		
309	Te-131m	1×10^6		

Schedule 2 Activity values for nuclides
Part 1 Activity values for nuclides

Clause 1

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
310	Te-132	1×10^{7}		
311	Te-133	1×10^{5}		
312	Te-133m	1×10^{5}		
313	Te-134	1×10^{6}		
314	I-120	1×10^{5}		
315	I-120m	1×10^{5}		
316	I-121	1×10^{6}		
317	I-123	1×10^{7}	8.3×10^{9}	1.0×10^{11}
318	I-124	1×10^{6}		
319	I-125	1×10^{6}	1.0×10^{9}	1.0×10^{9}
320	I-126	1×10^{6}		
321	I-128	1×10^{5}		
322	I-129	1×10^{5}	1.8×10^{7}	1.3×10^{9}
323	I-130	1×10^{6}		
324	I-131	1×10^{6}	1.0×10^{8}	1.0×10^{9}
325	I-132	1×10^{5}		
326	I-132m	1×10^{6}		
327	I-133	1×10^{6}		
328	I-134	1×10^{5}		
329	I-135	1×10^{6}		
330	Xe-120	1×10^{9}		
331	Xe-121	1×10^{9}		
332	Xe-122[a]	1×10^{9}		
333	Xe-123	1×10^{9}		
334	Xe-125	1×10^{9}		
335	Xe-127	1×10^{5}		
336	Xe-129m	1×10^{4}		
337	Xe-131m	1×10^{4}		
338	Xe-133m	1×10^{4}		
339	Xe-133	1×10^{4}		
340	Xe-135	1×10^{10}		
341	Xe-135m	1×10^{9}		
342	Xe-138	1×10^{9}		
343	Cs-125	1×10^{4}		
344	Cs-127	1×10^{5}		
345	Cs-129	1×10^{5}		

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
346	Cs-130	1×10^6		
347	Cs-131	1×10^6		
348	Cs-132	1×10^5		
349	Cs-134m	1×10^5		
350	Cs-134	1×10^4		
351	Cs-135	1×10^7		
352	Cs-135m	1×10^6		
353	Cs-136	1×10^5		
354	Cs-137[a]	1×10^4		
355	Cs-137		1.7×10^7	1.4×10^{10}
356	Cs-138	1×10^4		
357	Ba-126	1×10^7		
358	Ba-128	1×10^7		
359	Ba-131	1×10^6		
360	Ba-131m	1×10^7		
361	Ba-133	1×10^6		
362	Ba-133m	1×10^6		
363	Ba-135m	1×10^6		
364	Ba-137m	1×10^6		
365	Ba-139	1×10^5		
366	Ba-140[a]	1×10^5		
367	Ba-141	1×10^5		
368	Ba-142	1×10^6		
369	La-131	1×10^6		
370	La-132	1×10^6		
371	La-135	1×10^7		
372	La-137	1×10^7		
373	La-138	1×10^6		
374	La-140	1×10^5		
375	La-141	1×10^5		
376	La-142	1×10^5		
377	La-143	1×10^5		
378	Ce-134	1×10^7		
379	Ce-135	1×10^6		
380	Ce-137	1×10^7		
381	Ce-137m	1×10^6		

Schedule 2 Activity values for nuclides
Part 1 Activity values for nuclides

Clause 1

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
382	Ce-139	1×10^6		
383	Ce-141	1×10^7		
384	Ce-143	1×10^6		
385	Ce-144[a]	1×10^5		
386	Pr-136	1×10^5		
387	Pr-137	1×10^6		
388	Pr-138m	1×10^6		
389	Pr-139	1×10^7		
390	Pr-142	1×10^5		
391	Pr-142m	1×10^9		
392	Pr-143	1×10^6		
393	Pr-144	1×10^5		
394	Pr-145	1×10^5		
395	Pr-147	1×10^5		
396	Nd-136	1×10^6		
397	Nd-138	1×10^7		
398	Nd-139	1×10^6		
399	Nd-139m	1×10^6		
400	Nd-141	1×10^7		
401	Nd-147	1×10^6		
402	Nd-149	1×10^6		
403	Nd-151	1×10^5		
404	Pm-141	1×10^5		
405	Pm-143	1×10^6		
406	Pm-144	1×10^6		
407	Pm-145	1×10^7		
408	Pm-146	1×10^6		
409	Pm-147	1×10^7	1.0×10^{11}	1.0×10^{11}
410	Pm-148	1×10^5		
411	Pm-148m	1×10^6		
412	Pm-149	1×10^6		
413	Pm-150	1×10^5		
414	Pm-151	1×10^6		
415	Sm-141	1×10^5		
416	Sm-141m	1×10^6		
417	Sm-142	1×10^7		

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
418	Sm-145	1×10^7		
419	Sm-146	1×10^5		
420	Sm-147	1×10^4		
421	Sm-151	1×10^8		
422	Sm-153	1×10^6	3.2×10^{10}	6.3×10^{12}
423	Sm-155	1×10^6		
424	Sm-156	1×10^6		
425	Eu-145	1×10^6		
426	Eu-146	1×10^6		
427	Eu-147	1×10^6		
428	Eu-148	1×10^6		
429	Eu-149	1×10^7		
430	Eu-150	1×10^6		
431	Eu-150m	1×10^6		
432	Eu-152	1×10^6		
433	Eu-152m	1×10^6		
434	Eu-154	1×10^6		
435	Eu-155	1×10^7		
436	Eu-156	1×10^6		
437	Eu-157	1×10^6		
438	Eu-158	1×10^5		
439	Gd-145	1×10^5		
440	Gd-146[a]	1×10^6		
441	Gd-147	1×10^6		
442	Gd-148	1×10^4		
443	Gd-149	1×10^6		
444	Gd-151	1×10^7		
445	Gd-152	1×10^4		
446	Gd-153	1×10^7		
447	Gd-159	1×10^6		
448	Tb-147	1×10^6		
449	Tb-149	1×10^6		
450	Tb-150	1×10^6		
451	Tb-151	1×10^6		
452	Tb-153	1×10^7		
453	Tb-154	1×10^6		

Schedule 2 Activity values for nuclides
Part 1 Activity values for nuclides

Clause 1

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
454	Tb-155	1×10^7		
455	Tb-156	1×10^6		
456	Tb-156 (24.4 h)	1×10^7		
457	Tb-156m’ (5 h)	1×10^7		
458	Tb-157	1×10^7		
459	Tb-158	1×10^6		
460	Tb-160	1×10^6		
461	Tb-161	1×10^6		
462	Dy-155	1×10^6		
463	Dy-157	1×10^6		
464	Dy-159	1×10^7		
465	Dy-165	1×10^6		
466	Dy-166	1×10^6		
467	Ho-155	1×10^6		
468	Ho-157	1×10^6		
469	Ho-159	1×10^6		
470	Ho-161	1×10^7		
471	Ho-162	1×10^7		
472	Ho-162m	1×10^6		
473	Ho-164	1×10^6		
474	Ho-164m	1×10^7		
475	Ho-166	1×10^5		
476	Ho-166m	1×10^6		
477	Ho-167	1×10^6		
478	Er-161	1×10^6		
479	Er-165	1×10^7		
480	Er-169	1×10^7		
481	Er-171	1×10^6		
482	Er-172	1×10^6		
483	Tm-162	1×10^6		
484	Tm-166	1×10^6		
485	Tm-167	1×10^6		
486	Tm-170	1×10^6		
487	Tm-171	1×10^8		
488	Tm-172	1×10^6		
489	Tm-173	1×10^6		

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
490	Tm-175	1×10^6		
491	Yb-162	1×10^7		
492	Yb-166	1×10^7		
493	Yb-167	1×10^6		
494	Yb-169	1×10^7		
495	Yb-175	1×10^7		
496	Yb-177	1×10^6		
497	Yb-178	1×10^6		
498	Lu-169	1×10^6		
499	Lu-170	1×10^6		
500	Lu-171	1×10^6		
501	Lu-172	1×10^6		
502	Lu-173	1×10^7		
503	Lu-174	1×10^7		
504	Lu-174m	1×10^7		
505	Lu-176	1×10^6		
506	Lu-176m	1×10^6		
507	Lu-177	1×10^7		
508	Lu-177m	1×10^6		
509	Lu-178	1×10^5		
510	Lu-178m	1×10^5		
511	Lu-179	1×10^6		
512	Hf-170	1×10^6		
513	Hf-172[a]	1×10^6		
514	Hf-173	1×10^6		
515	Hf-175	1×10^6		
516	Hf-177m	1×10^5		
517	Hf-178m	1×10^6		
518	Hf-179m	1×10^6		
519	Hf-180m	1×10^6		
520	Hf-181	1×10^6		
521	Hf-182	1×10^6		
522	Hf-182m	1×10^6		
523	Hf-183	1×10^6		
524	Hf-184	1×10^6		
525	Ta-172	1×10^6		

Schedule 2 Activity values for nuclides
Part 1 Activity values for nuclides

Clause 1

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
526	Ta-173	1×10^6		
527	Ta-174	1×10^6		
528	Ta-175	1×10^6		
529	Ta-176	1×10^6		
530	Ta-177	1×10^7		
531	Ta-178	1×10^6		
532	Ta-179	1×10^7		
533	Ta-180	1×10^6		
534	Ta-180m	1×10^7		
535	Ta-182	1×10^4		
536	Ta-182m	1×10^6		
537	Ta-183	1×10^6		
538	Ta-184	1×10^6		
539	Ta-185	1×10^5		
540	Ta-186	1×10^5		
541	W-176	1×10^6		
542	W-177	1×10^6		
543	W-178[a]	1×10^6		
544	W-179	1×10^7		
545	W-181	1×10^7		
546	W-185	1×10^7		
547	W-187	1×10^6		
548	W-188[a]	1×10^5		
549	Re-177	1×10^6		
550	Re-178	1×10^6		
551	Re-181	1×10^6		
552	Re-182	1×10^6		
553	Re-182m	1×10^6		
554	Re-184	1×10^6		
555	Re-184m	1×10^6		
556	Re-186	1×10^6		
557	Re-186m	1×10^7		
558	Re-187	1×10^9		
559	Re-188	1×10^5		
560	Re-188m	1×10^7		
561	Re-189[a]	1×10^6		

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
562	Os-180	1×10^7		
563	Os-181	1×10^6		
564	Os-182	1×10^6		
565	Os-185	1×10^6		
566	Os-189m	1×10^7		
567	Os-191	1×10^7		
568	Os-191m	1×10^7		
569	Os-193	1×10^6		
570	Os-194[a]	1×10^5		
571	Ir-182	1×10^5		
572	Ir-184	1×10^6		
573	Ir-185	1×10^6		
574	Ir-186	1×10^6		
575	Ir-186m	1×10^6		
576	Ir-187	1×10^6		
577	Ir-188	1×10^6		
578	Ir-189[a]	1×10^7		
579	Ir-190	1×10^6		
580	Ir-190m (3.1 h)	1×10^6		
581	Ir-190m’ (1.2 h)	1×10^7		
582	Ir-192	1×10^4		
583	Ir-192m	1×10^7		
584	Ir-193m	1×10^7		
585	Ir-194	1×10^5		
586	Ir-194m	1×10^6		
587	Ir-195	1×10^6		
588	Ir-195m	1×10^6		
589	Pt-186	1×10^6		
590	Pt-188[a]	1×10^6		
591	Pt-189	1×10^6		
592	Pt-191	1×10^6		
593	Pt-193	1×10^7		
594	Pt-193m	1×10^7		
595	Pt-195m	1×10^6		
596	Pt-197	1×10^6		
597	Pt-197m	1×10^6		

Schedule 2 Activity values for nuclides
Part 1 Activity values for nuclides

Clause 1

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
598	Pt-199	1×10^6		
599	Pt-200	1×10^6		
600	Au-193	1×10^7		
601	Au-194	1×10^6		
602	Au-195	1×10^7		
603	Au-198	1×10^6		
604	Au-198m	1×10^6		
605	Au-199	1×10^6		
606	Au-200	1×10^5		
607	Au-200m	1×10^6		
608	Au-201	1×10^6		
609	Hg-193	1×10^6		
610	Hg-193m	1×10^6		
611	Hg-194[a]	1×10^6		
612	Hg-195	1×10^6		
613	Hg-195m[a]	1×10^6		
614	Hg-197	1×10^7		
615	Hg-197m	1×10^6		
616	Hg-199m	1×10^6		
617	Hg-203	1×10^5		
618	Tl-194	1×10^6		
619	Tl-194m	1×10^6		
620	Tl-195	1×10^6		
621	Tl-197	1×10^6		
622	Tl-198	1×10^6		
623	Tl-198m	1×10^6		
624	Tl-199	1×10^6		
625	Tl-200	1×10^6		
626	Tl-201	1×10^6	1.0×10^9	1.0×10^{11}
627	Tl-202	1×10^6		
628	Tl-204	1×10^4		
629	Pb-195m	1×10^6		
630	Pb-198	1×10^6		
631	Pb-199	1×10^6		
632	Pb-200	1×10^6		
633	Pb-201	1×10^6		

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
634	Pb-202	1×10^6		
635	Pb-202m	1×10^6		
636	Pb-203	1×10^6		
637	Pb-205	1×10^7		
638	Pb-209	1×10^6		
639	Pb-210[a]	1×10^4		
640	Pb-211	1×10^6		
641	Pb-212[a]	1×10^5		
642	Pb-214	1×10^6		
643	Bi-200	1×10^6		
644	Bi-201	1×10^6		
645	Bi-202	1×10^6		
646	Bi-203	1×10^6		
647	Bi-205	1×10^6		
648	Bi-206	1×10^5		
649	Bi-207	1×10^6		
650	Bi-210	1×10^6		
651	Bi-210m[a]	1×10^5		
652	Bi-212[a]	1×10^5		
653	Bi-213	1×10^6		
654	Bi-214	1×10^5		
655	Po-203	1×10^6		
656	Po-205	1×10^6		
657	Po-206	1×10^6		
658	Po-207	1×10^6		
659	Po-208	1×10^4		
660	Po-209	1×10^4		
661	Po-210	1×10^4		
662	At-207	1×10^6		
663	At-211	1×10^7		
664	Fr-222	1×10^5		
665	Fr-223	1×10^6		
666	Rn-220[a]	1×10^7		
667	Rn-222[a]	1×10^8		
668	Ra-223[a]	1×10^5		
669	Ra-223		1.3×10^8	6.9×10^8

Schedule 2 Activity values for nuclides
Part 1 Activity values for nuclides

Clause 1

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
670	Ra-224[a]	1×10^5		
671	Ra-225	1×10^5		
672	Ra-226[a]	1×10^4		
673	Ra-227	1×10^6		
674	Ra-228[a]	1×10^5		
675	Ac-224	1×10^6		
676	Ac-225[a]	1×10^4		
677	Ac-226	1×10^5		
678	Ac-227[a]	1×10^3		
679	Ac-228	1×10^6		
680	Th-226[a]	1×10^7		
681	Th-227	1×10^4		
682	Th-228[a]	1×10^4		
683	Th-229[a]	1×10^3		
684	Th-230	1×10^4		
685	Th-231	1×10^7		
686	Th-232	1×10^4		
687	Th-nat[a]	1×10^3		
688	Th-234[a]	1×10^5		
689	Pa-227	1×10^6		
690	Pa228	1×10^6		
691	Pa-230	1×10^6		
692	Pa-231	1×10^3		
693	Pa-232	1×10^6		
694	Pa-233	1×10^7		
695	Pa-234	1×10^6		
696	U-230[a]	1×10^5		
697	U-231	1×10^7		
698	U-232[a]	1×10^3		
699	U-233	1×10^4		
700	U-234	1×10^4		
701	U-235[a]	1×10^4		
702	U-236	1×10^4		
703	U-237	1×10^6		
704	U-238[a]	1×10^4		
705	U-nat[a]	1×10^3		

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
706	U-239	1×10^6		
707	U-240	1×10^7		
708	U-240[a]	1×10^6		
709	Np-232	1×10^6		
710	Np-233	1×10^7		
711	Np-234	1×10^6		
712	Np-235	1×10^7		
713	Np-236	1×10^5		
714	Np-236m	1×10^7		
715	Np-237[a]	1×10^3		
716	Np-238	1×10^6		
717	Np-239	1×10^7		
718	Np-240	1×10^6		
719	Pu-234	1×10^7		
720	Pu-235	1×10^7		
721	Pu-236	1×10^4		
722	Pu-237	1×10^7		
723	Pu-238	1×10^4		
724	Pu-239	1×10^4		
725	Pu-240	1×10^3		
726	Pu-241	1×10^5		
727	Pu-242	1×10^4		
728	Pu-243	1×10^7		
729	Pu-244	1×10^4		
730	Pu-245	1×10^6		
731	Pu-246	1×10^6		
732	Am-237	1×10^6		
733	Am-238	1×10^6		
734	Am-239	1×10^6		
735	Am-240	1×10^6		
736	Am-241	1×10^4	1.3×10^8	1.0×10^8
737	Am-242	1×10^6		
738	Am-242m[a]	1×10^4		
739	Am-243[a]	1×10^3		
740	Am-244	1×10^6		
741	Am-244m	1×10^7		

Schedule 2 Activity values for nuclides
Part 1 Activity values for nuclides

Clause 1

Activity values for nuclides				
Item	**Column 1** **Nuclide**	**Column 2** **Activity value (Bq) for nuclide in solid form**	**Column 3** **Activity value for nuclide in liquid form (Bq)**	**Column 4** **Activity value for nuclide in form of gas or vapour (Bq)**
742	Am-245	1×10^6		
743	Am-246	1×10^5		
744	Am-246m	1×10^6		
745	Cm-238	1×10^7		
746	Cm-240	1×10^5		
747	Cm-241	1×10^6		
748	Cm-242	1×10^5		
749	Cm-243	1×10^4		
750	Cm-244	1×10^4		
751	Cm-245	1×10^3		
752	Cm-246	1×10^3		
753	Cm-247	1×10^4		
754	Cm-248	1×10^3		
755	Cm-249	1×10^6		
756	Cm-250	1×10^3		
757	Bk-245	1×10^6		
758	Bk-246	1×10^6		
759	Bk-247	1×10^4		
760	Bk-249	1×10^6		
761	Bk-250	1×10^6		
762	Cf-244	1×10^7		
763	Cf-246	1×10^6		
764	Cf-248	1×10^4		
765	Cf-249	1×10^3		
766	Cf-250	1×10^4		
767	Cf-251	1×10^3		
768	Cf-252	1×10^4		
769	Cf-253	1×10^5		
770	Cf-254	1×10^3		
771	Es-250	1×10^6		
772	Es-251	1×10^7		
773	Es-253	1×10^5		
774	Es-254	1×10^4		
775	Es-254m	1×10^6		
776	Fm-252	1×10^6		
777	Fm-253	1×10^6		

Activity values for nuclides

Item	Column 1 Nuclide	Column 2 Activity value (Bq) for nuclide in solid form	Column 3 Activity value for nuclide in liquid form (Bq)	Column 4 Activity value for nuclide in form of gas or vapour (Bq)
778	Fm-254	1×10^7		
779	Fm-255	1×10^6		
780	Fm-257	1×10^5		
781	Md-257	1×10^7		
782	Md-258	1×10^5		
783	An alpha-emitting nuclide not mentioned in another item	1×10^3		
784	A nuclide that is not alpha-emitting and not mentioned in another item	1×10^4		

Note 1: The activity of a progeny nuclide included in secular equilibrium with a parent nuclide is dealt with in section 6. Parent nuclides and progeny nuclides are set out in clause 2 of this Schedule, and parent nuclides are also marked [a] in the table in this clause.

Note 2: A nuclide marked m or m' in the table indicates a metastable state of the nuclide, with the metastable state m' indicating a state of higher energy than the metastable state m.

Clause 2

Part 2—Parent and progeny nuclides

2 Parent nuclides and progeny nuclides

The following table lists parent nuclides and progeny nuclides for the purposes of section 6.

Parent nuclides and progeny nuclides

	Parent nuclide	Progeny nuclide
1	Ge-68	Ga-68
2	Rb-83	Kr-83m
3	Sr-82	Rb-82
4	Sr-90	Y-90
5	Y-87	Sr-87m
6	Zr-93	Nb-93m
7	Zr-97	Nb-97
8	Ru-106	Rh-106
9	Ag-108m	Ag-108
10	Sn-121m	Sn-121 (0.776)
11	Sn-126	Sb-126m
12	Xe-122	I-122
13	Cs-137	Ba-137m
14	Ba-140	La-140
15	Ce-144	Pr-144
16	Gd-146	Eu-146
17	Hf-172	Lu-172
18	W-178	Ta-178
19	W-188	Re-188
20	Re-189	Os-189m (0.241)
21	Os-194	Ir-194
22	Ir-189	Os-189m
23	Pt-188	Ir-188
24	Hg-194	Au-194
25	Hg-195m	Hg-195 (0.542)
26	Pb-210	Bi-210 Po-210
27	Pb-212	Bi-212 Tl-208 (0.36) Po-212 (0.64)
28	Bi-210m	Tl-206
29	Bi-212	Tl-208 (0.36) Po-212 (0.64)

Parent nuclides and progeny nuclides

	Parent nuclide	Progeny nuclide
30	Rn-220	Po-216
31	Rn-222	Po-218 Pb-214 Bi-214 Po-214
32	Ra-223	Rn-219 Po-215 Pb-211 Bi-211 Tl-207
33	Ra-224	Rn-220 Po-216 Pb-212 Bi-212 Tl-208 (0.36) Po-212 (0.64)
34	Ra-226	Rn-222 Po-218 Pb-214 Bi-214 Po-214 Pb-210 Bi-210 Po-210
35	Ra-228	Ac-228
36	Ac-225	Fr-221 At-217 Bi-213 Po-213 (0.978) Tl-209 (0.0216) Pb-209 (0.978)
37	Ac-227	Fr-223 (0.0138)
38	Th-226	Ra-222 Rn-218 Po-214
39	Th-228	Ra-224 Rn-220 Po-216 Pb-212 Bi-212 Tl-208 (0.36) Po-212 (0.64)

Schedule 2 Activity values for nuclides
Part 2 Parent and progeny nuclides

Clause 2

Parent nuclides and progeny nuclides		
	Parent nuclide	**Progeny nuclide**
40	Th-229	Ra-225 Ac-225 Fr-221 At-217 Bi-213 Po-213 Pb-209
41	Th-nat	Ra-228 Ac-228 Th-228 Ra-224 Rn-220 Po-216 Pb-212 Bi-212 Tl-208 (0.36) Po-212 (0.64)
42	Th-234	Pa-234m
43	U-230	Th-226 Ra-222 Rn-218 Po-214
44	U-232	Th-228 Ra-224 Rn-220 Po-216 Pb-212 Bi-212 Tl-208 (0.36) Po-212 (0.64)
45	U-235	Th-231
46	U-238	Th-234 Pa-234m
47	U-nat	Th-234 Pa-234m U-234 Th-230 Ra-226 Rn-222 Po-218 Pb-214 Bi-214 Po-214 Pb-210 Bi-210 Po-210
48	U-240	Np-240m

Parent nuclides and progeny nuclides

	Parent nuclide	Progeny nuclide
49	Np-237	Pa-233
50	Am-242m	Am-242
51	Am-243	Np-239

Note 1: The activity of a progeny nuclide included in secular equilibrium with a parent nuclide is dealt with in section 6.

Note 2: Parent nuclides are also marked [a] in the table in clause 1.