

## TARGET COUNTRY: AUSTRALIA

Target Country	CG N°	Target CG Coordinator	JC Article No.	National Report Citation	Question/Comment & Answer	
AU	2	P Kayser	32	Section B Page 8 and Section K Page 33	<b>Question</b>	Could Australia clarify the long-term management strategy for HLW and the corresponding decision making schedule? This section only mentions storage facilities.
					<b>Answer</b>	There is no HLW produced in Australia.
AU	2	P. Kayser	19	Section E Page 15	<b>Question</b>	Could Australia summarize the applicable licensing processes for the different stages of development of waste management facilities (design, construction, commissioning, modifications, D&D): Safety related documentations, role and responsibilities of the involved, review processes, public involvement, past experience of implementation?
					<b>Answer</b>	<p>Australia has 9 separate legal jurisdictions:</p> <ul style="list-style-type: none"> <li>• the Commonwealth of Australia;</li> <li>• the State of New South Wales;</li> <li>• the State of Queensland;</li> <li>• the State of Victoria;</li> <li>• the State of Tasmania;</li> <li>• the State of South Australia;</li> <li>• the State of Western Australia;</li> <li>• the self-governed Australian Capital Territory; and</li> <li>• the self-governed Northern Territory;</li> </ul> <p>each with its own legislative and regulatory framework for governing the safety of radioactive waste management.</p> <p>Australia has accumulated approximately 3,500 cubic metres of low level and short-lived intermediate level radioactive waste over the last 40 years. By international standards this quantity is very small.</p> <p>Queensland, South Australia, Tasmania, the Australian Capital</p>

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					<p>Territory and the Northern Territory operate a store for radioactive waste generated in that State or Territory. New South Wales has a non-operational radioactive waste store. Victoria does not have any radioactive waste management facilities within the meaning of the Convention but does have an interim storage facility for seized and abandoned radioactive materials – (storage of radioactive waste is not the primary purpose of the facility). Western Australia operates a near-surface radioactive waste repository for waste generated in Western Australia. The stores and the repository are State owned.</p> <p>It is unlikely that any State or Territory will build a new store or repository in the near future. In the event that a store or repository were proposed, the relevant State or Territory regulatory body would manage the development of appropriate regulations and procedures to assess siting, design, construction and operation.</p> <p>At present, the Commonwealth has applied to the federal regulatory body, the Australian Radiation Protection and Nuclear Safety Agency, for a licence to site, construct and operate a national short-lived intermediate-level and low-level radioactive waste near surface repository. Further details of the proposal can be found at <a href="http://www.radioactivewaste.gov.au">http://www.radioactivewaste.gov.au</a></p> <p><i>The Australian Radiation Protection and Nuclear Safety Act 1998</i> (the ARPANS Act) and its regulations, the Australian Radiation Protection and Nuclear Safety Regulations 1999, prescribe the framework for the Commonwealth.</p> <p>Section 30 of the ARPANS Act prohibits any part of the Australian Government from undertaking the following conduct unless the person is authorised under a facility licence issued by the CEO of the Australian Radiation Protection and Nuclear Safety Agency:</p> <ol style="list-style-type: none"><li>i) prepare a site for a controlled facility;</li><li>ii) construct a controlled facility;</li><li>iii) have possession or control of a controlled facility;</li></ol>
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					<p>iv) operate a controlled facility; v) de-commission, dispose of or abandon a controlled facility.</p> <p>A controlled facility includes a plant for preparing or storing fuel for use in a nuclear reactor and a nuclear waste storage or disposal facility.</p> <p>An applicant for a licence must submit the information set out in Part 1 of Schedule 3 of the Regulations which includes the applicant's plans and arrangements for maintaining effective control of the facility; the safety management plan for the controlled facility; the radiation protection plan for the controlled facility; the radioactive waste management plan for the controlled facility; the security plan for the controlled facility; and the emergency plan for the controlled facility.</p> <p>In accordance with Regulation 40, ARPANSA is required to invite public submissions on any application involving a nuclear installation such as the proposed National Radioactive Waste Repository and National Intermediate Level Waste Store. Paragraph 41(3)(g) of the Regulations requires ARPANSA to take into account the content of any public submissions in deciding whether or not to issue a licence. In the past, public submissions have been invited as part of the assessing the application for a licence to operate the Australian Nuclear Science and Technology Organisation's waste management facilities mentioned on page 9 of the National Report.</p> <p>ARPANSA's Regulatory Branch assess all licence applications against accepted standards for radiation protection and nuclear safety. The assessment and subsequent licensing recommendations (including non-statutory conditions of licence) are recorded in a report to the CEO of ARPANSA called the 'Regulatory Assessment Report'. All licences issued by the CEO are subject to the statutory conditions of licence, that is, the conditions mentioned either in the Act or Regulations. Licence conditions enforcing accepted standards</p>
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						<p>in areas such as occupational exposure, disposal of radioactive waste and dose limits are found in Part 4, Division 4 and Part 5 of the Regulations.</p> <p>In deciding whether or not to issue a licence, the CEO of ARPANSA must take into account the following significant matters:</p> <ul style="list-style-type: none"> <li>i) international best practice in relation to radiation protection and nuclear safety as it relates to the licence application;</li> <li>ii) whether the information establishes that the proposed conduct can be carried out without undue risk to the health and safety of people, and to the environment;</li> <li>iii) whether the applicant has shown that there is a net benefit from carrying out the conduct relating to the controlled facility; and</li> <li>iv) whether the applicant has shown that the magnitude of individual doses, the number of people exposed, and the likelihood that exposure will happen, are as low as reasonably achievable, having regard to economic and social factors; and</li> <li>v) whether the applicant has shown a capacity for complying with these regulations and the licence conditions; and</li> <li>vi) the content of any submissions made by members of the public about the application.</li> </ul> <p>A copy of the licence authorising the decommissioning of the Moata nuclear research reactor can be found at:  <a href="http://www.arpansa.gov.au/pubs/moata_dec_lic.pdf">http://www.arpansa.gov.au/pubs/moata_dec_lic.pdf</a></p>
AU	2	P. Kayser	20	Section E Page 15	<b>Question</b>	Could Australia provide information on the human resources of the regulatory bodies?
					<b>Answer</b>	ARPANSA Regulatory Branch comprises approximately 20 people, about three-quarters being regulatory scientists and engineers. The 8 State and Territory radiation protection regulators vary between several people up to about 15 staff. The staff of all agencies possess

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						the experience, skills and knowledge needed to undertake their regulatory activities.
AU	2	P. Kayser	24	Section F page 17	<b>Question</b>	Could Australia provide information on the implementation of the radioprotection regulations such as: main features, observed doses, licensee organization and ALARA principle implementation?
					<b>Answer</b>	<p>Australia has 9 separate legal jurisdictions:</p> <ul style="list-style-type: none"> <li>• the Commonwealth of Australia;</li> <li>• the State of New South Wales;</li> <li>• the State of Queensland;</li> <li>• the State of Victoria;</li> <li>• the State of Tasmania;</li> <li>• the State of South Australia;</li> <li>• the State of Western Australia;</li> <li>• the self-governed Australian Capital Territory; and</li> <li>• the self-governed Northern Territory;</li> </ul> <p>each with its own legislative and regulatory framework for governing the safety of radioactive waste management radiation.</p> <p>The legislation relevant to each jurisdiction is listed in pages 46-48 of the National Report.</p> <p>The framework established by the States and Territories licenses the user of the radioactive material or the apparatus and requires the premises and the material/apparatus to be registered. The Commonwealth framework takes an entirely different approach. It divides licensing into 2 parts, controlled facilities and controlled materials and apparatus. Controlled facilities are subdivided into nuclear installations and prescribed radiation facilities. A nuclear installation includes a nuclear research reactor, a plant for preparing or storing fuel for use in a nuclear research reactor and a nuclear waste storage or disposal facility with an activity at or above the level prescribed in the legislation. A prescribed radiation facility</p>

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					<p>includes a nuclear waste storage or disposal facility that has a lower activity level. Controlled facilities are licensed by activity stage eg siting, construction, possession and operation and decommissioning. The licensing process for a nuclear installation includes a public consultation process. Controlled material and controlled apparatus include sealed and unsealed sources as well as ionising and non-ionising apparatus. A user is licensed to deal with the material or the apparatus.</p> <p>The legislation passed in each jurisdiction includes requirements to comply with accepted standards for dose limits, radioactive waste disposal etc and also require reporting of incident and exposures and gives the regulatory body powers to monitor and enforce compliance with legislative requirements.</p> <p>All jurisdictions enforce accepted standards for occupational exposure limits, dose limits, disposal of radioactive waste, transport of radioactive, air and waterborne discharge limits etc upon licence holders and registered users. These standards are usually imposed by Regulations made under the Act that created the regulatory framework but may also be imposed as specific conditions of licence or registration. Below is a schedule identifying the standard by subject and IAEA or ICRP equivalent.</p> <p><u>Occupational exposure and dose limits</u>          Australian code or standard: <i>Recommendations for Limiting Exposure to Ionizing Radiation, National Standard for Limiting Occupational Exposure to Ionizing Radiation (Printed 1995 - Republished 2002)</i>          International equivalent: <i>ICRP 60 and BSS 115.</i></p> <p><u>Transport of radioactive material</u>          Australian code or standard: <i>Code of Practice for the Safe Transport of Radioactive Material</i>          International equivalent: <i>IAEA Regulations for the Safe Transport of</i></p>
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AU	2	P. Kayser	26	Section F Page 18	<b>Question</b>	Could Australia provide information on the specific regulatory framework for dismantling projects such as: existence and management of General regulations, specific licensing procedures,

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						considered risks, inspections, etc.?
					<b>Answer</b>	<p>The Australian Government is the only entity within the 9 Australian jurisdictions with facilities under decommissioning particularly the Moata nuclear research reactor.</p> <p>Please see the answer to question 1 for an explanation of the general regulatory framework and licensing process. In relation to dismantling projects, information concerning decommissioning is set out in Items 1-4, 20 (decommissioning plan) and 21 (decommission schedule) in Division 1, Part 4 of the Australian Radiation Protection and Nuclear Safety Regulations 1999, a copy of which can be found at <a href="http://scaleplus.law.gov.au/html/pastereg/3/1509/top.htm">http://scaleplus.law.gov.au/html/pastereg/3/1509/top.htm</a></p>
AU	2	P. Kayser	11 vi) and vii)	Section H Page 26-27	<b>Question</b>	Could Australia provide a detailed waste categorization and the corresponding medium and long-term management strategies for each identified category of waste?
					<b>Answer</b>	<p>There are no uniform definitions of waste categories across Australian jurisdictions. The <i>Code Of Practice For The Disposal Or Radioactive Wastes By The User</i> ( 1985) and the <i>Code Of Practice For The Near Surface Disposal Of Radioactive Waste In Australia</i> (1992) of the Radiation Health Series of the National Health &amp; Medical Research Council have been adopted by various jurisdictions in Australia. Between them these codes define waste that can be dispose of at urban landfil and therefor what needs to go to a near surface disposal facility. The Near Surface Disposal Code defines three categories of waste that can be disposed of by near surface disposal:</p> <ul style="list-style-type: none"> <li>• Lightly contaminated items such as protective clothing, laboratory equipment, plastic etc.</li> <li>• Shielded sources and small items of contaminated equipment</li> <li>• Bulk materials such as contaminated soils or large individual items of contaminated plant.</li> </ul> <p>Waste that cannot be disposed of by near surface disposal must be stored pending deep geological disposal or disposal following a suitable period of decay.</p>



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AU	2	P. Kayser	12	Section H Page 27	<b>Question</b>	Could Australia provide information on the monitoring of the Mount Walton facility?
					<b>Answer</b>	<p>All radiation monitoring is carried out in accordance with the commitments given in -</p> <p>(i) <i>The Monitoring Program (December 1991)</i>, as approved at the 78th meeting of the Radiological Council and as amended from time to time;</p> <p>(ii) <i>The Packaging Procedures (January 1992)</i>, as approved at the 79th meeting of the Radiological Council;</p> <p>the monitoring is undertaken by an approved Radiation Safety Officer (RSO) who has qualifications and experience in health physics.</p> <p>The RSO reports in writing to the Radiological Council the results of monitoring and other factors relating to radiation health after any site changes, including the receipt of material for disposal and sealing of the storage chamber. This monitoring includes, absorbed dose rates in air above the disposal sites, radon monitoring, water monitoring (although there has been an absence of sufficient water to measure to date) and pre and post disposal monitoring (as above). Personnel monitoring is carried out during a disposal campaign.</p>
AU	2	P. Kayser	16	Section H Page 28	<b>Question</b>	Could Australia provide more detailed information on the incidents reporting system and corresponding procedures (criteria for declaration, procedures, public information, past experience)?
					<b>Answer</b>	<p>Australia has 9 separate legal jurisdictions:</p> <ul style="list-style-type: none"> <li>• the Commonwealth of Australia;</li> <li>• the State of New South Wales;</li> <li>• the State of Queensland;</li> <li>• the State of Victoria;</li> <li>• the State of Tasmania;</li> <li>• the State of South Australia;</li> <li>• the State of Western Australia;</li> <li>• the self-governed Australian Capital Territory; and</li> </ul>

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					<ul style="list-style-type: none"><li>• the self-governed Northern Territory; each with its own legislative and regulatory framework for governing the safety of spent fuel and radioactive waste management.</li></ul> <p>The legislation relevant to each jurisdiction is listed in pages 46-48 of the National Report.</p> <p>The legislation in each jurisdictions contains reporting requirements on matters such abnormal or unplanned exposure to radiation, out of control radiation sources, damage or malfunction of a source of radiation, loss or theft of a source of radiation, contamination by a radioactive substance, unintentional or accidental release of a radioactive substance, corrective actions taken.</p> <p>A licence holder under the <i>Australian Radiation Protection and Nuclear Safety Act 1998</i> must comply with the following statutory conditions set out in the Regulations to the Act:</p> <ul style="list-style-type: none"><li>(i) The licence holder must investigate suspected breaches of licence conditions. If a breach is identified, the licence holder must rectify the breach and any of its consequences as soon as reasonably practicable. The licence holder must also inform the CEO about the breach as soon as reasonably practicable.</li><li>(ii) The licence holder must take all reasonably practicable steps to prevent accidents involving controlled material, controlled apparatus or controlled facilities described in the licence. If an accident happens, the licence holder must take all reasonably practicable steps to control the accident, minimise its consequences (including injury to any person and damage or harm to the environment), tell the CEO about the accident within 24 hours of it happening and submit a written report within 14 days.</li></ul> <p>In accordance with Regulation 63, ARPANSA has published guidelines on how licence holders will report their compliance with</p>
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						<p>the Act, the Regulations and licence conditions. These guidelines, although currently being updated, can be found on the web at <a href="http://www.arpansa.gov.au/reg63_1b.pdf">http://www.arpansa.gov.au/reg63_1b.pdf</a>.</p> <p>In accordance with the Act and Regulations, past incidents have been reported to the Parliament in ARPANSA's quarterly reports. These reports are available on the web at <a href="http://www.arpansa.gov.au/qtrlyrpts.htm">http://www.arpansa.gov.au/qtrlyrpts.htm</a>.</p>
AU	2	P. Kayser	17	Section H Page 29	<b>Question</b>	Could Australia provide more detailed information on the regulatory guidelines concerning the post-closure of waste storage or disposal sites?
					<b>Answer</b>	<p>A copy of the national <i>Code of Practice for the Near-Surface Disposal of Radioactive Waste in Australia</i> mentioned in Section H on Page 29 of the National Report is available for viewing and downloading at ARPANSA's website: <a href="http://www.arpansa.gov.au/pubs/rhs/rhs35.pdf">http://www.arpansa.gov.au/pubs/rhs/rhs35.pdf</a> There are otherwise no generalised regulatory guidelines. Licence conditions or the like may be imposed in certain instances. For example, licence conditions requiring post-closure environmental monitoring were imposed in the licence to authorise rehabilitation of the Maralinga atomic weapons test site. A copy of the licence with the relevant conditions is available on the web at <a href="http://www.arpansa.gov.au/licon.htm#disr">http://www.arpansa.gov.au/licon.htm#disr</a></p>
AU	2	P. Kayser	32 (and 11)	Section B Page 32 (and Page 27)	<b>Question</b>	Could Australia provide detailed information on the currently applicable waste clearance criteria and the corresponding planned modifications?
					<b>Answer</b>	<p>Further information on waste clearance criteria can be found in the <i>Code Of Practice for the Disposal of Radioactive Wastes by the User</i> which is available on the web at <a href="http://www.arpansa.gov.au/pubs/rhs/rhs13.pdf">http://www.arpansa.gov.au/pubs/rhs/rhs13.pdf</a> This Code is currently being revised and the draft revision is planned to be available for public comment in the first half of 2004.</p>
AU	2	P. Kayser	32	Section K Page 33	<b>Question</b>	Could Australia provide information on the planned schedule for the mentioned harmonization of the safety practices?
					<b>Answer</b>	Under Section 15 of the <i>Australian Radiation Protection and</i>

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					<p><i>Nuclear Safety Act 1998</i>, the CEO of ARPANSA is responsible for promoting uniformity of radiation protection and nuclear safety policy and practices across jurisdictions of the Commonwealth, the States and the Territories. The responsibility reflects the fact that Australia is a federation of States and Territories, with each jurisdiction having its radiation protection and nuclear safety regulatory framework. A draft National Directory for Radiation Protection has been prepared and is available for viewing at <a href="http://www.arpansa.gov.au/dr_ndrp.htm">http://www.arpansa.gov.au/dr_ndrp.htm</a> A further draft is expected to be published in the first half of 2004.</p> <p>The aim of the Directory is to provide nationally uniform requirements for the protection of people and the environment against exposure or potential exposure to ionizing and non-ionizing radiation and for the safety of radiation sources, including provision for the national adoption of codes and standards. The Directory has been developed to address the needs of radiation protection regulators but it will also benefit other sectors involved in implementing radiation controls, such as mining and occupational health and safety regulators.</p>
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