

Australia's proactive approach to radiation protection of the environment: How integrated is it with radiation protection of humans?

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Abstract—Australia's regulatory framework has evolved over the past decade from the assumption that protection of people implies protection of the environment to the situation now where radiological impacts on non-human species (wildlife) are in their own right considered. In an Australian context, there was a recognised need for specific national guidance on protection of non-human species, for which the uranium mining industry provides the major backdrop. National guidance supported by ARPANSA publications in the Radiation Protection Series provides clear and consistent advice to operators and regulators on protection of non-human species, including advice on specific assessment methods and models and how these might be applied in an Australian context. These approaches and the supporting assessment tools provide a mechanism for industry to assess and demonstrate compliance with the environmental protection objectives of relevant legislation and to meet stakeholder expectations that radiological protection of the environment is taken into consideration in accordance with international best practice. Experiences from the past 5–10 years and examples of where the approach to radiation protection of the environment has been well-integrated, or presented some challenges will be discussed. Future challenges in addressing protection of the environment in existing exposure situations will also be discussed.