



Submission No 96

**Review of Australia's Relationship with the  
Countries of Africa**

**Organisation:** Australian Uranium Association

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**From:** Michael Angwin [<mailto:Michael@aua.org.au>]  
**Sent:** Monday, 24 November 2010  
**To:** Carter, John Gordon (REPS)  
**Subject:** Review of Australia's relationship with countries in Africa

Dear Mr Carter

In its supplementary submission to the above Review, the Australian Conservation Foundation writes, in regard to the tailings condition applying to the Ranger mine, that 'this is the law and the standard expected and applied in Australia – given the Australian Uranium Association and the Australia-Africa Mining Industry Group both state that their members are happy to apply Australian standards to their African operations this is the standard that should apply.'

The tailings condition applying to the Ranger mine is neither the 'law' nor the 'standard expected and applied in Australia'. It is a licence condition. That distinction is a fundamental rather than a semantic one.

The tailings licence condition that applies to the Ranger mine is that final disposal of tailings must be undertaken, to the satisfaction of the Minister on the advice of the Supervising Scientist on the basis of the best available modelling, in such a way as to ensure their isolation for 10,000 years. There is no such 'law' of general application; there is no 'standard' to this effect.

This licence condition applies only to the Ranger uranium mine, taking into account, at the time the licence was granted, the whole circumstances of the mine and its operation. Ranger's unique circumstances include being surrounded by an iconic World Heritage Area and a National Park.

Australia's other three uranium mines operate under different licence conditions.

The tailings licence condition applying to Olympic Dam is that the owners of the mine must apply ARPANSA's *Code of Practice and Safety Guide for Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing*. ([Code of Practice and Safety Guide for Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing \(2005\) \(PDF 492k\)](#)) That Code does not set the kind of condition that applies to Ranger.

Both the operating mine at Beverley and the mine being commissioned at Honeymoon are in situ recovery mines that do not generate tailings of the kind that Ranger and Olympic Dam give rise to and therefore do not have licence conditions comparable to either of those mines. They follow ARPANSA's *Code of Practice and Safety Guide for Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing*.

That Code requires that doses should be kept 'as low as reasonably achievable, economic and social factors being taken into account' (the ALARA principle); and that '...no practice involving exposures to radiation should be adopted unless it produces sufficient benefit to exposed individuals or to society...' (the optimisation principle). In other words, the Code makes clear that, in Australia, the 'standard' is to apply the ALARA principle and the optimisation principle rather than a particular quantification such as the one required of Ranger.

As both those principles, and others, underpin radiation management world-wide (in accordance with the recommendations of the International Commission on Radiological Protection), it is highly likely that African countries also adopt them.

The ACF's contentions misrepresent the submission of the Australian Uranium Association. In its submission, the Association said that its *Code of Practice*, which explicitly applies to Members of the Association wherever in the world they conduct operations, sets standards of operational practice in areas related to the specific properties of uranium as well as standards in other areas of resource industry practice. The ACF's inference that this means the Association is submitting that a licence condition set for Ranger, erroneously described by the ACF as an Australian law and standard, must apply in Africa is misleading.

The Association's *Code of Practice* says that AUA Members should 'use site-specific risk analysis to account for current and long-term stability of waste and waste containment'. This is precisely the approach the regulator took in setting licence conditions for Ranger, is the general approach in ARPANSA's *Code*, is the approach AUA members will take and is probably the approach any mining regulator would take in Africa or elsewhere.

The scientific and policy framework for radiological protection is a global one, drawing on the work of the International Commission on Radiological Protection over 80 years. The framework is sophisticated and complex, drawing on a deep understanding of the nature of radiation and the study of its effects over many years and on inter-related and interacting principles. The ICRP framework, and the Australian legal regulatory approach that is built on it, require careful and thoughtful description.

For the information of the Committee, I have included a link to a succinct but rich description of the history, policies and procedures of the ICRP <http://www.icrp.org/docs/Histpol.pdf>

Yours sincerely

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