

Submission of the Medical Association for Prevention of War (Australia).

Inquiry into the Commonwealth Radioactive Waste Management (Repeal and Consequential Amendment) Bill 2008.

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Summary

MAPW (Australia) appreciates this opportunity to provide evidence to the inquiry into the Commonwealth Radioactive Waste Management (Repeal and Consequential Amendment) Bill, and welcomes the parliament's attention to this matter. MAPW regards the matter as a very important one, partly because the management of our nation's radioactive waste has implications not only for current Australians but also for all future generations.

Nuclear waste management should be guided by the following facts:

- Radioactive waste lasts thousands of years.
- All levels of radioactive contamination pose a finite risk.
- The nuclear waste problem is not resolved.
- The transportation phase is a particularly hazardous part of the nuclear chain.

Genuine consultation with communities that may be directly affected is an essential component of nuclear waste management. Imposition of a nuclear waste facility on an unwilling community has no role to play in the management of nuclear waste.

It is imperative that we do not create problems for future generations to either resolve or live with; or, more accurately, intensify the nuclear waste problems that already exist.

MAPW recommends that:

- The Commonwealth Radioactive Waste Management Act be repealed;
- A full independent inquiry be held into Australia's management of nuclear waste;
- All possible options for such management be considered;
- No nuclear waste facility be imposed on an unwilling community.
- The problem of waste be included in any discussion on the role of nuclear power in addressing climate change.

Introduction

Australia must address the problem of what to do with the radioactive waste that we have already accumulated. This includes not only the waste that is accumulating at Lucas Heights and many other locations around the country, but also the waste that will be returned to Australia from France and Scotland from approximately 2011 onwards.

MAPW has previously expressed serious concerns relating to the 2005 Commonwealth Radioactive Waste Management Act (CRWMA) and its 2006 amendment, which were passed in order to impose a nuclear waste facility on a community in the Northern Territory against the wishes of the community. The bills were introduced for a simple reason: No-one wants nuclear waste. If such waste were a harmless substance that can safely be stored, it would not have been necessary to pass an act of parliament to impose it on unwilling communities.

Specifically, the Commonwealth Radioactive Waste Management Bill, which passed through parliament in December 2005, over-rides existing native title rights and the 1999 Environment Protection and Biodiversity Conservation Act. The legislation made it clear that the Government owes no legal obligation of procedural fairness towards anybody affected by the decision.¹

The 2006 Commonwealth Radioactive Waste Management Legislation Amendment Act removed the right of traditional owners to appeal against arbitrary decisions on the part of land councils or the Minister in relation to use of their land for a nuclear waste dump. Such was the haste with which the issue was addressed - in relation to waste that will last for thousands of years - that members of the Senate Employment, Workplace Relations and Education Legislative Committee, to which the matter was referred, had insufficient time to visit the NT to gauge local opinion on the matter.

Very pleasingly, in April 2007 the ALP national conference voted to repeal the CRWMA if elected. The conference also promised a method of addressing radioactive waste management that is “scientific, transparent, accountable, fair and allows access to appeal mechanisms” and to “ensure full community consultation in radioactive waste decision-making processes”. MAPW agrees with the importance of each of these qualities, which are totally bypassed by the CRWMA. The commitment to repeal the CRWMA was affirmed by Environment Minister Peter Garrett in June 2008². It is time for the government to honour that commitment.

While the subject of this inquiry is the CRWMA, it is impossible to adequately address the Act in isolation from some of the wider issues relating to nuclear power. These will be referred to where relevant.

The following principles should be considered in relation to the CRWMA

There is no level of radioactive contamination that is regarded as safe.

Scientific understanding of the risks of low level radiation was affirmed by the 2005 report of the National Academy of Sciences in the US, BEIR (Biological Effects of Ionising Radiation) VII. The BEIR reports are recognised globally as an authoritative assessment of radiation risk estimation and radiation protection regulation. The BEIR VII report stated “A comprehensive review of available biological and biophysical data supports a “linear-no-threshold” risk model – that the risk of cancer proceeds in a

¹ <http://www.aph.gov.au/library/pubs/BD/2005-06/06bd059.htm>

² *The Canberra Times*, 11 June 2008.

linear fashion at lower doses without a threshold and that the smallest dose has the potential to cause a small increase in risk to humans.”

It should be noted that this risk is greater for children than for adults, and greater for females than for males. For boys, radiation in the first year of life produces three to four times the cancer risk as the same exposure between the ages of 20 and 50, and female infants have almost double the risk as male infants.

Radioactive waste facilities may not behave as we predict

Nuclear waste lasts thousands of years. There is no way that we can be certain how robust a waste facility will be over such an extended period of time, let alone how robust the political oversight and management will be. While nuclear proponents generally downplay or deny the risks of unexpected consequences, evidence indicates that, even in the short term, plans and predictions can go awry.

One of the tactics used by the nuclear industry to sidestep legitimate concerns is the exploitation of gaps in our knowledge. K. S. Shrader-Frechette, Distinguished Research Professor of Philosophy at the University of South Florida, refers to this “appeal to ignorance” in relation to nuclear waste. She says, “One of the most problematic inferences that occurs in assessing long-term radwaste risks occurs when one assumes that because one does not know of a way for repository failure or radionuclide to occur, none will occur.”³

Shrader-Frechette cites the example of the Maxey Flats nuclear waste dump in Kentucky, where industry consultants estimated that plutonium buried there would take 24,000 years to migrate one half inch. Only 10 years after the facility opened, plutonium and other radionuclides were detected 2 miles away.⁴

As in all industries, nuclear facilities, including both power plants and waste dumps, can suffer accidents and unintended consequences. In the nuclear industry however, the effects of unexpected events last infinitely longer than in any other industry. In July 2008, at the Tricastin nuclear power plant in southern France, 30,000 litres of uranium solution, containing 74 kilograms of uranium, overflowed from a reservoir. It seeped into the ground and into the Gaffiere and the Lauzon, two rivers that flow into the Rhone. In the same week, it was revealed that at the German nuclear waste dump in Asse, the former salt mine has leaked radioactive brine for two decades and threatens major groundwater contamination.

No country has in place a proven, satisfactory permanent nuclear waste management plan.

There is growing pressure globally for larger countries with undeveloped land to be an international dump for high level waste. While the Australian Government has wisely refused to accept a role for Australia as an international nuclear waste dump, it

³ K S Shrader-Frechette, who holds degrees in mathematics, physics and philosophy. “*Burying Uncertainty. Risk and the Case Against Geological Disposal of Nuclear Waste.*” University of California Press 1993. p. 105.

⁴ Ibid, p. 103

is likely that pressure for change to this policy will emerge again in future if nuclear power expands globally.

Proponents of a high level nuclear waste facility in Australia have included former US Ambassador Robert Gallucci.⁵ In the US, a resting place for the country's 70,000 tons of high level waste (from military and civilian programs) is still awaited, as doubts remain about the suitability of the Yucca Mountain site.

If, with the assistance of the CRWMA, a nuclear waste facility is imposed on the people of the NT, there is likely to be even greater pressure internationally to use the facility for other countries' high level waste.

All options for nuclear waste management should be considered

The best available scientific principles on the subject should be used to decide which nuclear waste management option is most suitable for Australia. The options include storage at the site of production. While a more distant facility might be attractive to some as an "out-of-sight, out-of-mind" solution, that is one of its drawbacks. Once removed to an out-of-sight location, nuclear waste will cease to be regarded as a problem, despite its long-lived adverse effects on human and environmental health. The incentive to deal with it properly, and, importantly, to stop producing more, will be largely gone.

Consideration should also be given to the need for the best possible nuclear expertise to monitor the waste at whichever location is chosen for its long-term storage. If a location in the NT is eventually chosen then transfer of some of Australia's nuclear expertise from Lucas Heights to the chosen location would be necessary.

Transportation of radioactive materials should be avoided wherever possible

Transportation of nuclear waste is the phase during which it is most difficult to secure the material, and the risk of terrorist access is greatest. The manufacture of a "dirty bomb" (radioactive material dispersed by conventional explosive), which would cause widespread panic, social disruption and long-term health effects, would be a relatively easy task for a terrorist organisation as long as there is access to the nuclear material. Therefore transport of radioactive materials should be minimised.

If there is to be such transport, there must also be consultation with all those communities along the proposed route, including emergency, police, health and environmental protection services in those communities.

Community consultation is essential

Central to a healthy democracy is the involvement of communities in the making of decisions that will affect them. Such consultation has been sadly lacking in relation to nuclear matters in Australia. In addition, commitments have not been honoured. The CRWMA has a sordid history.

⁵ *The Australian*, 2 July 2007.

In September 2004, the Federal Minister for Environment and Heritage, Senator Ian Campbell, gave an “absolute categorical assurance” to the people of the Northern Territory that no nuclear waste dump would be imposed on them.⁶ The following year the government introduced the CRWM Bill to over-ride any federal, state or territory legislation that might stand in the way of a waste dump in the NT.

There has been no genuine consultation with the Northern Territory government or people, or those living along the proposed transport routes. There has been no impartial examination of the evidence in relation to best nuclear waste management practices. There has simply been an attempt to coerce communities.

In June 2006 the report of the UK Committee on Radioactive Waste stated that “There is a growing recognition that it is not ethically acceptable for a society to impose a radioactive facility on an unwilling community.” The purpose of the CRWMA was precisely the imposition of such a facility on an unwilling community.

Indigenous Australians have already suffered from imposition of nuclear waste problems

Australia has a poor record in relation to protecting indigenous minorities from exposure to radioactive contamination. The British nuclear bomb tests in the 1950s were conducted with scant regard for their welfare.

Some proponents of a nuclear waste facility in the NT claim that aboriginal communities would benefit financially. To the extent that this is true, the apparent need for such communities to attract funds by accepting waste that no-one else wants is a sorry reflection on the conditions in those communities. Their access to services that other Australians take for granted should not be dependent on their readiness to accept long-lived toxic waste. The government’s enthusiasm to “close the gap” between the health and welfare of aboriginal and non-aboriginal Australians is very welcome, and should not be tainted by any suggestion that aboriginal communities would survive better financially if only they accepted nuclear waste on their land.

It is worth mentioning also the appalling record of the “clean-up” at Maralinga, also on aboriginal land. Engineer Alan Parkinson, in his book “Maralinga: Australia’s Nuclear Waste Cover-up” describes the grievous failure of the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) to enforce clean-up standards that were remotely close to being adequate.⁷ ARPANSA is the same regulatory body entrusted with overseeing the health aspects of all civilian nuclear activities in the country.

In the face of government claims that the Maralinga clean-up was “world’s best practice” Parkinson is scathing. “When you consider that people who are in charge of this project are the same people who are responsible for a national nuclear waste repository, which will be used to dispose of far less hazardous waste than this”, he

⁶ Election 2004: ALP candidate for Solomon sceptical about Minister’s promise not to build nuclear waste dump in Northern Territory’, *PM*, 30 September 2004.

⁷ A Parkinson. *Maralinga: Australia’s Nuclear Waste Cover-up*. ABC Books 2007.

says, “..They’re the people who could easily just say, ‘Well, just put a hole in the ground, throw it in.’ That’s what we’ve done with the plutonium at Maralinga”.⁸

With such recent history, Northern Territorians, aboriginal and non-aboriginal, in areas of relatively low population density, could rightly be suspicious that a nuclear waste facility imposed on them would be very much a case of “out-of-sight, out-of-mind”.

The problem of waste should be included in any discussion on the role of nuclear power in addressing climate change.

It is irresponsible to continue creating more waste when communities are threatened with an unwanted dump to deal with the burden of waste already in existence. It is not good enough for nuclear power proponents to ignore this problem or to dishonestly claim that it is solved. If the problem were solved, there would have been no need for the Commonwealth Radioactive Waste Management Act to impose a dump on unwilling communities. There would have been a better solution.

The unresolved nuclear waste problem remains one of the major barriers to an expansion of nuclear power as a solution to climate change. Until this problem is resolved MAPW regards an expansion of nuclear power generation as irresponsible. It creates an ever-increasing burden of radioactive waste for current and all future generations.

⁸ Maralinga - The fallout continues. ABC Radio. *Background Briefing*. April 16, 2000