



16 November 2005

Mr John Carter
Secretary
Senate Employment, Workplace Relations &
Education Committee
Suite SG 52
Parliament House
Canberra ACT 2600

Dear Mr Carter

I have enclosed a submission in regards to review by the federal government's radioactive waste management facility – the Commonwealth Radioactive Waste Management Bill, 2005.

As a valued member of the Katherine community for over eight years and most importantly, a parent contemplating our children's future I am disillusioned and disheartened with the present government and the release of the above mentioned Bill pertaining to the proposed site selection of Fisher's Ridge. Nuclear waste poses a serious danger to humans and the environment for many thousands of years. A range of terminal and debilitating medical conditions have been directly linked to exposure to nuclear waste. Having medium level waste stored in close proximity to the township of Katherine and the underwater reservoir systems will pose a danger to humans and the environment. The following details outline some of my concerns and needs to be taken into consideration by the Employment, Workplace Relations and Education Committee.

In addition, I was disappointed in the absurdly short period of time given for submissions to be presented, given the fortitude of the decision. However, please consider my submission and I look forward to a response from the committee.

I will send a signed hard copy by mail to the above address.

Judith Burke

Submission

Opposition to the Commonwealth Radioactive Waste Management Bill 2005, particularly pertaining to Schedule 1 – Site 3 – Fishers Ridge (NT Portion 3260 delineated on Survey Plan S86/252

- Inconsistencies in what sort of waste will be stored in the facility and the terminology as to the classification of waste between Australia and Internationally in terms of low level, intermediate (short lived and long lived) and high level waste. The Bill (2005) defines “controlled material within the meaning of the *Australian Radiation Protection and Nuclear Safety Act 1998*, but does not include high level radioactive material or spent nuclear fuel.” However, the spent fuel waste from the Lucas Heights reactors that is currently destined for the NT waste dump is already classified as high level by the NSW EPA and US regulatory authorities (ANSTO, 2005). It remains that the facility will be utilized for the storage of long-lived toxic radioactive waste that will last billions of years (Plutonium and Uranium-238, half life of 4, 460, 000, 000). (Getting Wasted) No-one can guarantee safe disposal and storage of such long lived radioactive waste, so what are the alternatives?
- Inconsistencies in the type of waste management facility it will be, is it determined as a long term national geological repository, or a more “temporary” measure? In reviewing the data and statements by Hon Dr Brendan Nelson MP (2005) my interpretation is that it will be a national store for the interim, an above ground store to operate for a period of up to at least fifty years, until a long term national geological repository is built. If this is the case, then the issue will be the future safe removal of the waste from the temporary storage to the more permanent facility. Further concern is that it will be developed initially as a temporary means of storage, and in time upgraded to a more long term or worse still a national geological repository without meeting the necessary international requirements for the safe storage of medium to high level waste for long periods of time.
- Current arrangement for the storage of the low level waste generated in the Northern Territory and within Australia is safe and responsible and meets the standards set out by national and international standards.
- One has to question what is the origin for the necessity for a nuclear waste management facility and why the absurdly short period of time allocated to push the bill through parliament by the end of 2005? Is it essential to replace the nuclear reactor at Lucas Heights? Building a new nuclear reactor in Lucas Heights in suburban Sydney will suffer the routine pollution, plus the risks of a new one. Are there alternatives?

- Responsibility thus suggests review of some of the industrial and diagnostic applications of nuclear technology and what are some of the readily available alternatives such as MRI, CT, PET (Positron Emission Tomography) or ultrasound scanning. Although the vast majority of nuclear medicine is diagnostic, radio-isotopes do offer vital therapy in some cases of particular cancers. But these tools needn't come at the cost of more long-lived reactor waste. Many of these isotopes could be produced by a cyclotron. When technetium was first discovered in the 1930's, it was created in a particle accelerator, not a reactor. We also import medical isotopes. When the current reactor is of-line, supplies are maintained through local cyclotron production and increased importation. (Getting Wasted)
- "Spent fuel waste from Lucas Heights accounts for less than 1% of the volume of waste intended for the NT waste dump, but it accounts for over 99% of the radioactivity of the total waste. One gram of this spent fuel waste contains more radioactivity than all the other waste put together. In all, there will be about 25 cubic metres of this highly radioactive spent fuel waste." (Environmental Centre, NT, n.d.)
- In considering Hon Dr Brendan Nelson MP announcement in July 2005, he said "the analysis took into account issues such as safety of people and the environment." Fishers Ridge is a Defence Development property however, there has been no consideration for the geomorphology of the region, taking into account the close proximity to the region's Tindal, Ooloo and Jinkuckin aquifer system. Nuclear waste poses a serious danger to humans and the environment for many thousands of years. A range of terminal and debilitating medical conditions have been directly linked to exposure to nuclear waste. To consider having a low to medium level waste in close proximity to the township of Katherine and the underwater reservoirs, will pose a danger to humans and the environment. When the Commonwealth Government committee looked at potential sites across Australia and on offshore islands over a ten year period, eight suitable sites were identified, none of which were located in the Northern Territory, have these more suitable sites been further investigated?
- Further comment in regards to the analysis of a suitable site, "security of radioactive waste." The facility will be located more than 350km from the nearest capital city (Darwin) and yet I would consider the remoteness would provide an ideal situation for a terrorist contemplating an attack. In an isolated facility, with a handful of complacent security staff, an unsecured amount of "medium level" waste could be mobilized undetected a long distance away from origin before the warning was released. In a situation such as this, how long would it take to implement the contingency plan, as the transport targets a densely populated city? There would be significant time delays for the police, armed forces, SAS or any other emergency service in this situation to gain a coordinated approach in

preventing such as disaster as this, in considering the great distance from such infrastructure.

- Katherine Region promotes itself as the “Jewel of the North” and tourism is a vital industry. I foresee that to build any kind of nuclear waste management facility within the region will be to the detriment of this industry as well as to the agriculture, fishing and primary industries. Taking this into account, if the facility goes ahead, the town will be associated with a nuclear waste management facility, and maybe an infrastructure of defence and security, however I foresee the demise of the present prosperous industries and very much of little else.....a modern day ghost town.

References

ANSTO Replacement Nuclear Research Reactor Draft EIS, Vol 2

Australian Government Department of Education, Science and Training, *Radio Active Waste Management in Australia, Australia and Radiation, Categories of Radioactive Waste*, http://www.radioactivewaste.gov.au/australia_and_radiation/categories_of_radioactive

Author unknown, *Getting Wasted, No Reactor, No Waste, No Dump*, n.d

Environment Centre of the NT, *Environment Centre challenges nuclear waste dump amendments, overseas nuclear waste could be sent to NT waste dump*, n.d.

Northern Territory Government, *What You Need to Know About Canberra’s Proposed Nuclear Dump*, n.d.

The Environment Centre Northern Territory, Media Releases, Other Issues, *Proposed NT nuclear dump to receive highly radioactive waste for next 40 years*, 21 July 2005, http://www.lecnt.org/html/media_other_2005_21.htm,

The Parliament of the Commonwealth of Australia, House of Representatives, *Commonwealth Radioactive Waste Management Bill 2005, No...*, 2005, House of Representatives, 2005.