

PROPOSED RADIOACTIVE WASTE FACILITY AT MUCKATY, NT

January 2013

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This paper and other information posted at: foe.org.au/anti-nuclear/issues/oz/nontdump

SUMMARY

The Federal Government plans to establish a national radioactive waste repository and above-ground store at Muckaty, 120 kms north of Tennant Creek in the Northern Territory. There are many concerns with the proposal, including:

- The failure of the Government to establish the need for a national repository/store.
- The failure of the Government to carry out a site-selection process based on scientific and environmental criteria.
- Draconian legislation which overrides all state/territory laws and key Commonwealth laws.

The Labor Government is in breach of its commitment to address radioactive waste management issues in a manner which is "scientific, transparent, accountable, fair and allows access to appeal mechanisms" and to "ensure full community consultation in radioactive waste decision-making processes". Instead of basing management options on scientifically-based risk-benefit analyses of the various options, the Federal Government has assumed the need for a remote facility. Instead of a site-selection process based on scientific and environmental criteria, the Government has chosen the path of least political resistance.

AUSTRALIA'S NUCLEAR WASTE

Uranium mine waste is managed on-site and is not part of the debate over the proposed facility in the NT.

Measured by radioactivity, spent nuclear fuel reprocessing waste from Lucas Heights reactors accounts for over 90% of the waste the Government wants to dump in the NT. Although the volume of this waste is relatively small – some tens of cubic metres – it is by far the most radioactive material.

Measured by volume, two sources account for well over 90% of the radioactive waste that the

Government wants to dump at Muckaty: ANSTO / Lucas Heights; and approximately 2000 cubic metres of low-level radioactive waste (contaminated soil) stored at Woomera, SA.

Other waste from Lucas Heights that the Government wants to dump in the NT includes:

- Over 5,000 drums of low-level radioactive waste.
- Over 200 cubic metres of intermediate-level solid waste, some with 'unknown radioactive inventory'.
- Several thousand cubic metres of radioactive 'non-compactable contaminated items', e.g. materials from decommissioned Lucas Heights reactors, pipes, machinery, etc.
- About 10 cubic metres of solidified molybdenum-99 long-lived intermediate-level waste.
- Approximately 130 drums per year of radioactive 'compactable low level solid waste', e.g. vials, gloves etc.
- Approximately 20 drums per year of solidified radioactive 'sludge' produced in the treatment of reactor wastewaters.
- Over 800 drums of 'historical wastes' including radioactive thorium, beryllium and uranium.

Waste from sources other than Lucas Heights includes:

- The 2000 cubic metres of radioactive contaminated soil currently stored at Woomera.
- Other Commonwealth Defence Department and CSIRO 'historic' radioactive waste. Approximate volumes are 210 cubic metres of low level radioactive waste and 35 cubic metres of intermediate level radioactive waste.

NUCLEAR WASTE HAZARDS

The Government wants to bury lower-level wastes in shallow trenches and store long-lived intermediate-level waste above ground at Muckaty. No progress has been made towards the final disposal of long-lived

intermediate-level waste (via deep geological disposal) so the planned 'interim' storage in the NT could stretch many decades into the future.

Specific concerns with Muckaty include rainfall / water infiltration, and seismic risks. Dr Mike Sandiford from the School of Earth Sciences at Melbourne University states: *"We occasionally get big earthquakes in Australia (up to about magnitude 7) and the big ones have tended to occur in somewhat unexpected places like Tennant Creek. The occurrences of such earthquakes imply that we still have much to learn about our earthquake activity. From the point of view of long-term waste disposal this is very important, since prior to the 1988 (M 6.8) quake, Tennant Creek might have been viewed as one of the most appropriate parts of the continent for a storage facility."*

When the federal Bureau of Resource Sciences conducted a preliminary site selection study in the 1990s, eight sites across five states/territories were considered "suitable" site for further investigation for a national repository. The Muckaty region was not considered suitable for further investigation.

Nuclear engineers Alan Parkinson and John Large have warned that the proposed NT dump would be attractive to terrorists wanting to make a 'dirty bomb', a radioactive weapon delivered by conventional means.

The NT Government notes in its submission to a 2010 Senate Inquiry that: "There is very limited capacity within the Northern Territory hospital network outside of Darwin to respond to any radioactive waste incident or accident. ... The Port of Darwin does not have the resource capacity (expertise or equipment) to respond to a radioactive incident.

Numerous transport accidents involving radioactive materials have been documented – notwithstanding Government claims to the contrary.

A key problem is that the Federal Government department responsible for the proposed NT radioactive waste facility has a track record of seriously mismanaging radioactive waste management projects, namely, the Maralinga 'clean up' in the late 1990s, and an earlier proposal to establish a national repository in SA.

THE NATIONAL RADIOACTIVE WASTE MANAGEMENT ACT

The Federal Government's National Radioactive Waste Management Act is heavy-handed and undemocratic.

The Government plans to ignore and override legislation passed in the NT Parliament which seeks to ban the imposition of radioactive waste dumps – the Northern Territory Nuclear Waste Transport, Storage and Disposal (Prohibition) Act 2004.

A November 2010 Parliamentary Bills Digest outlines the main provisions of the Act. The following points and quotations are drawn from the Digest.

The Bill (now an Act) incorporates a requirement on the part of the Minister to accord 'procedural fairness' in relation to the nomination of a site for a repository, however the *"new requirement is not however unduly onerous – it necessitates the Minister inviting comment from specified persons or entities, and 'tak[ing] into account any relevant comments given'."*

"In the event that the Minister makes an error of law in the processes applying to site nominations, approval of nominations, and selection of the preferred site, the Bill restores the right of an 'aggrieved person' to seek judicial review under the ADJR Act. However, the Bill also retains the current provisions of the Act that a failure to comply with certain procedural elements does not invalidate the nominations etc."

"The Bill retains the existing provisions of the Act that effectively exclude State and Territory laws from operating where they would 'regulate, hinder or prevent' the Commonwealth from doing work to investigate the suitability of potential sites and then the construction and operation of the proposed facility, including the transporting of radioactive materials."

The Bill requires evidence of consultation and consent with the relevant traditional Aboriginal owners but *"a failure to comply with these elements does not invalidate a nomination, nor is the nomination disallowable by Parliament."*

The Bill states that the Minister can "at his or her absolute discretion" approve a nomination of a site and a failure to observe procedural elements does not invalidate the approval nor is it disallowable by Parliament.

"New section 12 effectively excludes State and Territory laws from operating where they would 'regulate, hinder or prevent the doing of a thing authorised by section 11'. New section 12(1) does state that only certain types of State and Territory laws (eg laws relating to 'the use or proposed use of land or premises') are excluded, but the range of laws mentioned is so wide they are likely to give almost complete coverage. Indeed, even if a State or Territory law fell outside the type listed in new subsection 12(1),

the law could be excluded by prescribing it under regulation ..."

"New subsection 13(1) provides that two Commonwealth laws, the Aboriginal and Torres Strait Islander Heritage Protection Act 1984 and the Environment Protection and Biodiversity Conservation Act 1999, have no effect where they would 'regulate, hinder or prevent the doing of a thing authorised by section 11'. Again a prescription power under regulation exists (subsection 13(2)) to allow for the exclusion of other Commonwealth laws, or parts of laws."

"The acquisition and/or extinguishment of rights and interests under new section 19 has effect despite any other law of the Commonwealth, State or Territory, including the Commonwealth's Lands Acquisition Act 1989 and the Native Title Act 1993 ..."

"New section 24 effectively excludes State and Territory laws from operating where they would 'regulate, hinder or prevent the doing of a thing authorised by section 23'. New subsections 24(1)-(2) do state that only certain types of State and Territory laws (for example, laws relating to 'the uses or proposed use of land or premises') are excluded, but again the range is so wide they are likely to give almost complete coverage. Even if a State or Territory law fell outside the types listed in new subsections 24(1)-(2), the law could be excluded by prescribing it under regulation ..."

The Act also provides wide-ranging powers to override Commonwealth legislation.

FEDERAL COURT ACTION

Led by Mark Lane Jangala, senior Ngapa Traditional Owners have initiated action in the Federal Court challenging the nomination of the Muckaty site. It is inappropriate for the Federal Government to be progressing the proposed NT dump until that legal action is resolved. Yet the National Radioactive Waste Management Act entrenches Muckaty as the only site under active consideration.

NUCLEAR MEDICINE

The Government's claim that most of the waste is a by-product of nuclear medicine is false. The Medical Association for Prevention of War notes that the government has been "peddling a lie" by claiming that the proposed radioactive waste repository/store would in any way facilitate the practice of nuclear medicine.

A RESPONSIBLE APPROACH TO RADIOACTIVE WASTE MANAGEMENT

All options for radioactive waste management should be considered

All options for radioactive waste management need to be considered – not just 'remote' repositories (always more remote for some people than for others).

The option of ongoing storage at the Lucas Heights site needs to be independently assessed. All relevant organisations have acknowledged that this is a viable option including Mr Ferguson's own department, the regulator ARPANSA, the Australian Nuclear Association, and ANSTO itself.

Requiring ANSTO to store its own waste is the best and perhaps the only way of focussing the Organisation's mind on the importance of waste minimisation. It avoids the risks of transportation. It avoids double-handling – i.e. long-lived intermediate-level waste being moved to Muckaty only to be moved again should progress be made in relation to a deep geological repository which is the designated method of disposal for long-lived intermediate-level and high-level waste.

"ANSTO is capable of handling and storing wastes for long periods of time. There is no difficulty with that."

-- Dr Ron Cameron, ANSTO.

"It would be entirely feasible to keep storing it [radioactive waste] at Lucas Heights ..."

-- Dr Clarence Hardy, Australian Nuclear Association, ARPANSA forum, Adelaide, February 26, 2004.

"A significant factor is that ANSTO has the capacity to safely store considerable volumes of waste at Lucas Heights ..."

-- Department of Resources, Energy and Tourism, Application to ARPANSA, 2003, Vol.iii Ch.9 Waste – Transfer and Documentation, p.5.

Site selection processes must be fair and transparent.

If a site selection process for a waste management facility is required, it ought to be based on scientific and environmental criteria, as well as on the principle of community consent. When the federal Bureau of Resource Sciences conducted a national repository site selection study in the 1990s, the Muckaty area did not even make the short-list as a "suitable" site for further investigation.