PROPOSED NT RADIOACTIVE WASTE DUMP

Friends of the Earth September 2011

www.foe.org.au/anti-nuclear/issues/oz/nontdump Shortcut to same website: www.tiny.cc/kgsx8





Yucca Mountain, USA \$10 billion wasted, 20+ years behind schedule Yucca Mountain dump plan has been abandoned



Hanford, USA

One of the most contaminated nuclear sites on earth ... in the most technically-advanced nuclear nation on earth.



LESSONS FROM OVERSEAS

Advanced industrial societies are capable of monumental mismanagement of nuclear waste.

Three key variables:

- 1. Waste volumes, level, longevity etc.
- 2. Competent management
- 3. Independent regulation

RADIOACTIVE WASTE IN AUSTRALIA (excluding uranium mine waste)

- 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
- * approx. 2000 cubic metres of very-low-level radioactive waste (contaminated soil) stored at Woomera.

Waste from Lucas Heights – a mixed bag

- Spent fuel reprocessing waste
- 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 intermediatelevel 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

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

Spent nuclear fuel cask. HIFAR reactor in background.



OPAL research reactor at Lucas Heights





LESSON FROM THE SA DUMP CAMPAIGN

PERSISTENCE













PROMISES, PROMISES ...

Labor promised 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".











BRINGING THE VOICES OF MUCKATY TO MELBOURNE

A cultural community under pressure of an unwanted Radioactive waste dump site

Stop Martin Ferguson Dumping on Traditional Owners Information evening, photo exhibition, film screening

Wednesday, April 21, 2010 7pm - 8:30pm Northcote Town Hall 189 High St, Rooftop Room

Contact: Tully McIntyre 0410 388 187 starbusta®yahoo.com.au You are invited to the struggle to stand up for the rights of those facing the threat of a National Nuclear Waste Dump, upon their lands at Muckaty Station in the Northern Territory. Our current Federal Energy, Resource and Tourism Minister Martin Ferguson is dumping Muckaty with his radioactive management responsibilities ...



Dianne Stokes:

"All along we have said we don't want this dump on our land but we have been ignored. Martin Ferguson has avoided us and ignored our letters but he knows very well how we feel. He has been arrogant and secretive and he thinks he has gotten away with his plan but in fact he has a big fight on his hands."









Marlene Bennett:

"I am also very disappointed in the NLC consultation process. The NLC is the Aboriginal people's voice, and they failed to represent them. ... I think the consultation process was very flawed and that the time for trying to pull the wool over people's eyes is past. Open and honest discussion should be happening involving all the right people, not just with certain elements of the people."

PUBLIC HEALTH AND ENVIRONMENTAL HAZARDS

Long-lived waste store

• fire (glass and concrete)

Dump for low-level waste and short-lived intermediate-level waste

- designed to leak
- heavy rainfall
- seismic risks Dr Mike Sandiford, School of Earth Sciences, 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 longterm 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 [radioactive waste] storage facility."

PUBLIC HEALTH AND ENVIRONMENTAL HAZARDS

- 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.
- transport risks e.g 1-2 'incidents' each year transporting radioactive materials to and from ANSTO
- "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. --- NT Government submission to 2010 Senate Inquiry

Three key variables:

- □ Waste volumes, level, longevity etc.
- □ Competent management
- Independent regulation

NT dump proposal fails on all three counts.

- Solution Waste volumes, level, longevity etc.
- Competent management
- Independent regulation

THE GREATEST RISK: MISMANAGEMENT AND INADEQUATE REGULATION

- DRET has a history of grossly mismanaging nuclear waste projects (Maralinga 1990s; SA dump fiasco)
- The regulator ARPANSA is not independent and also has a poor track record (2005 ANAO report; current inquiry)



www.nuclearfreeways.org.au







WADI WADI TRADITIONAL OWNERS SWAN HILL, 2010

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KEEP OUR COMMUNITY NUCLEAR FREE www.foe.org.au



Ghan accident

Ban Ban Springs, Dec 2006



PORT PIRIE, SA, 2010

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WHAT TO DO WITH THE WASTE?

LUCAS HEIGHTS

- Australia's nuclear expertise concentrated at Lucas Heights
- no problems with storage space
- still producing waste (so still require on-site waste stores, expertise etc)
- avoids transport risks and all the problems associated with proposed NT dump

EVERYONE IS IN FURIOUS AGREEMENT ...

- **ANSTO**: "ANSTO is capable of handling and storing wastes for long periods of time. There is no difficulty with that."
- **ANSTO**: "We've got quite a number of buildings there which house radioactive materials. They're all stored safely and securely and all surrounded by a high-security perimeter fence with Federal Police guarding. It is the most secure facility we have got in Australia."
- Australian Nuclear Association: "It would be entirely feasible to keep storing it at Lucas Heights ..."
- ARPANSA: "In the meantime, this waste will have to be continued to be handled properly on the Lucas Heights site. I am satisfied ... that it can be." ARPANSA CEO, 2002.
- Dept of Education, Science and Tourism, 2003: "ANSTO has the capacity to safety store considerable volumes of waste at Lucas Heights ..."

OTHER WASTE STORES (medical, scientific institutions)

SAME LOGIC:

- They continue to produce radioactive waste so ongoing need for on-site waste stores and waste management expertise
- On average they hold 1/7th of a cubic metre ... very small volumes

PROPOSED NT RADIOACTIVE WASTE DUMP

- Unwanted
- Unsafe (risk/benefit)
- Unnecessary
- Thin edge of the wedge
- Better active today than radioactive tomorrow

MORE INFORMATION

Friends of the Earth briefing paper (and the references listed therein) www.tiny.cc/kgsx8

Beyond Nuclear Initiative www.beyondnuclearinitiative.com