

# URANIUM MINING IN AUSTRALIA

Nuclear-Free Campaign – Friends of the Earth Australia  
www.nuclear.foe.org.au  
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As of March 2018, two uranium mines are operating in Australia – Olympic Dam (Roxby Downs) and Beverley Four Mile, both in SA. In the NT, mining has ceased at Ranger but the processing of stockpiled ore will continue for another 2-3 years. WA is facing the threat of uranium mining.

Uranium accounts for just 0.26% of Australian export revenue (2006–15 average) and 0.01% of Australian jobs (about 1,200 jobs). The number of jobs will fall well below 1,000 when Ranger is closed.

## **Environmental impacts**

At the Beverley mine in SA, an in-situ leaching process is used which involves dumping radioactive and acidic waste water directly into the underlying aquifer.

The Olympic Dam (Roxby Downs) mine in SA has produced a radioactive tailings dump of well over 150 million tonnes, growing at 10 million tonnes annually.

The Ranger mine in the NT has generated over 30 million tonnes of tailings waste. In 2005, ERA was found guilty and fined \$150,000 in relation to a contamination incident in March 2004 when about 150 people were exposed to drinking water containing uranium levels 400 times greater than the maximum Australian safety standard. Twenty-eight mine workers suffered adverse health effects including vomiting and skin irritation as a result of the exposure. A further charge related to contaminated vehicles leaving the mine site in breach of decontamination and clearance procedures – causing a serious and preventable radiation exposure to a local mechanic and his children.

A 2003 Senate Inquiry into the regulation of uranium mining in Australia reported "a pattern of under-performance and non-compliance", it identified "many gaps in knowledge and found an absence of reliable data on which to measure the

extent of contamination or its impact on the environment", and it concluded that changes were necessary "in order to protect the environment and its inhabitants from serious or irreversible damage".

The environmental problems don't end at the mine sites. Australian uranium is converted into high-level nuclear waste in nuclear power reactors around the world, yet there is still not a single repository anywhere in the world for the disposal of high-level nuclear waste.

The only deep underground nuclear waste repository in the world – the Waste Isolation Pilot Plant in the US state of New Mexico, used to dispose of long-lived intermediate-level nuclear waste – was closed for three years after a February 2014 chemical explosion in one of the underground waste barrels.

## **Nuclear weapons proliferation**

Five countries have used supposedly 'peaceful' nuclear facilities and materials to build arsenals of nuclear weapons – India, Israel, Pakistan, South Africa, and North Korea.

Australia's uranium exports have resulted in the production of over 176 tonnes of plutonium - enough to build over 17,600 nuclear weapons. Yet it is widely acknowledged that the 'safeguards' system is fundamentally flawed and limited. The former Director General of the International Atomic Energy Agency, Dr. Mohamed El Baradei, has noted that the IAEA's basic rights of inspection are "fairly limited", that the safeguards system suffers from "vulnerabilities" and "clearly needs reinforcement", that efforts to improve the system have been "half-hearted", and that the safeguards system operates on a "shoestring budget ... comparable to that of a local police department".

## **Racism**

Racism in the uranium mining industry in Australia typically involves some or all of the following

tactics: ignoring the concerns of Traditional Owners insofar as the legal and political circumstances permit; divide-and-rule tactics; bribery; humbugging Traditional Owners (exerting persistent, unwanted pressure until the mining company gets what it wants); providing Traditional Owners with false or misleading information; and threats, most commonly legal threats.

The Australian Nuclear Free Alliance (ANFA) – which brings together First Nations and environmental and public health groups – has a 20-year history of opposing the uranium industry. See [www.anfa.org.au](http://www.anfa.org.au)

Mining company ERA and the Howard government were determined to override the opposition of the Mirarr Traditional Owners to the Jabiluka uranium mine in the NT, but the Mirarr prevailed. The Jabiluka mine site has been rehabilitated and the Mirarr have a veto over any future development of the mine.

Heathgate Resources, owned by General Atomics, succeeded in imposing the Beverley uranium mine on the Adnyamathanha people in north-east SA in the late 1990s. The company negotiated with a small number of Native Title claimants, but did not recognise the will of the community as a whole. This divide-and-rule strategy, coupled with the joint might of industry and government, resulted in inadequate and selective consultation with the Adnyamathanha people.

The racism associated with the Olympic Dam uranium mine in South Australia is enshrined in legislation. WMC Resources was granted completely unjustifiable legal privileges under the SA Roxby Indenture Act. This legislation overrides the Aboriginal Heritage Act, the Environment Protection Act, the Water Resources Act and the Freedom of Information Act. The new mine owner, BHP, refuses to relinquish these legal privileges.

### **Occupational health and safety**

Uranium mine workers are often told that the radiation doses they receive are below or close to background levels and below permissible limits – the implication being that the radiation doses are ‘safe’. However, the doses received at the mine site are *additional* to background radiation so workers are at *additional* risk of fatal cancers and other radiation-related diseases.

International cancer incidence and mortality data demonstrate statistically significant links between radiation and all solid tumours as a group, as well as for cancers of the stomach, colon, liver, lung, breast, ovary, bladder, thyroid, and for non-melanoma skin cancers and most types of leukaemia.

Over the years the permitted levels of radiation exposure for workers and the public have dropped dramatically as research, particularly from radiation biologists, indicates harmful effects still exist at much lower exposure levels. For workers, the permitted dose was set at 500 millisieverts per year in 1934, 150 mSv in 1950, 50 mSv in 1956, and 20 mSv (averaged over five years) in 1991. The limit for members of the public is just 1 mSv.

### **Public opposition**

A June 2006 Newspoll of 1200 Australians found that 66% of Australians (including 78% of ALP voters and 53% of Coalition voters) oppose any new uranium mines. More recent polls have been less strongly anti-uranium, but the issue is still hotly contested.

### **Claims about greenhouse 'benefits'**

Claims about the greenhouse 'benefits' of nuclear power and uranium mining typically ignore more greenhouse-friendly renewable energy sources and the use of several types of renewables to supply reliable base-load power (e.g. geothermal, bioenergy, solar thermal with storage, and sometimes hydro).

### **More information**

Australian Nuclear Free Alliance: [www.anfa.org.au](http://www.anfa.org.au)

Friends of the Earth:  
[www.nuclear.foe.org.au/uranium](http://www.nuclear.foe.org.au/uranium)

Australian Map (online multimedia resources)  
[www.australianmap.net](http://www.australianmap.net)

Australian Conservation Foundation  
[www.acf.org.au/nuclear\\_free](http://www.acf.org.au/nuclear_free)

Conservation Council of Western Australia:  
[www.ccwa.org.au/nuclearfreewa](http://www.ccwa.org.au/nuclearfreewa)