

## THE DANGERS OF STUMBLING DOWN THE NUCLEAR PATH

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Australia is in grave danger. Not only has the labor party joined the coalition's open-slasher uranium mine policy, but the Prime Minister is mooting domestic uranium enrichment, construction of 25 nuclear reactors on the East Coast, storage of foreign radioactive waste in Australia and reprocessing spent radioactive nuclear fuel in a "closed nuclear fuel cycle".

Interestingly, Halliburton, Cheney's former company constructed the railway line between Adelaide and Darwin, now owned by Serco Asia Pacific, a leader in the management and transport of Britain's nuclear waste. It runs adjacent to both the S.A. Olympic Dam uranium mine and to Muckaty Station at Tennant Creek in the Northern Territory - the preferred site chosen by the federal government to store radioactive waste from Lucas Heights. This geologically unstable area recently experienced a 2.5 Richter earthquake and is laced with underground aquifers supplying water to indigenous populations, to outback towns and numerous stations.

The Northern Land Council chose aboriginal tribal land at Muckaty Station for the repository by persuading two elders of one aboriginal family to the tune of \$12 million to surrender their land for the radioactive waste dump. Fifteen other family owners strongly disagree with this decision.

Ominously on June 2<sup>nd</sup>, the Federal council of the Liberal Party also quietly endorsed a foreign nuclear waste dump for Australia.

Uranium mining, the railway line and the nuclear waste dump are part of a bigger global picture. The US Department of Energy DOE is planning a Global Nuclear Energy Partnership (GNEP) to promote a robust future for their nuclear industry. GNEP consists of uranium mining, enrichment, export of fuel rods, return of irradiated rods, reprocessing and construction of generation 1V reactors by selected and trusted countries.

Because of the risk of nuclear weapons proliferation posed by non nuclear-armed nations with access to nuclear power technology, the DOE plans to control the entire nuclear fuel cycle by exporting enriched uranium fuel rods, and re-importing irradiated nuclear fuel to be reprocessed in the US. These intensely radioactive rods will be chopped up, dissolved in concentrated nitric acid, and from this intensely radioactive liquid solution plutonium will be extracted to be fissioned in the new "Generation 1V" or fast reactors. (200 kilos of plutonium are generated yearly in a nuclear power plant). Reprocessing is a filthy process which unavoidably exposes both workers and the general public to massive amounts of radioactive biologically dangerous elements such as tritium, and long-lived elements - krypton 85, carbon 14, iodine 129 and technetium 99.

Reprocessing is also outrageously expensive. The cost of just one reprocessing plant ranges from \$30 to \$150 billion US and the GNEP program in America will require federal subsidies of up to \$100 billion.

Generation 1V reactors deemed "passively safe" will be fueled by 5 to 15 tons of plutonium cooled by liquid sodium, a highly reactive and explosive material when

exposed to air. If the coolant pipes break, the sodium would burn triggering a massive spontaneous nuclear explosion scattering tons of plutonium to the four winds because only 2 to 3 kilos of plutonium is critical mass. (less than one millionth of a gram of plutonium is carcinogenic and it has a half life of 24,000 years - radioactive for 500,000 years).

Generation 1V reactors are hailed as part of a closed loop process because the plutonium can be "transmuted" into shorter lived fission products such as strontium 90 and cesium 137 that only last 600 years, instead of 500,000 years while at the same time generating electricity!

But this is a vacuous plan because only 10% of the plutonium is converted to fission products while 90% remains. This deadly radioactive mixture then must be cooled, transported, stored and isolated from the environment virtually for ever at enormous expense.

Presently only China, France, Japan and Russia are included in the US GNEP plan, but clearly Australia is involved because Howard is about to repeal federal legislation banning uranium enrichment, nuclear power and the reprocessing of spent fuel in Australia.

This suspicion is confirmed by the following facts. According to journalist Julie Macken, Dr John White chairman of Howard's Uranium Industry Framework UIF, head of the Australian waste company Global Renewables and his colleagues have spent \$45 million of their own money creating the Australian Nuclear Fuel Leasing company ANFL which is to facilitate and manage uranium enrichment, fuel fabrication, leasing, transport and storage in Australia of 15 to 20% of the world's radioactive nuclear waste. This foreign nuclear waste will, according to White, be shipped to Darwin and then sent on the Halliburton-Serco railway line to be cooled for decades and then stored in the Australian outback for ever more.

The question which begs an answer is this. GNEP is to be handled only by politically stable countries, but given the radiological life and proliferation properties of plutonium how long can political stability be guaranteed?