

McMahon, Rosalind (SEN)

From: [REDACTED]
Sent: Sunday, 20 January 2008 10:15 AM
To: RRAT, Committee (SEN)
Subject: Inquiry into Climate Change and the Australian Agricultural Sector

Please include this submission including attachment as part of the above enquiry.

Submission

Summary:

Arid Australia and sustainable agriculture in these areas impacts Climate Change and is also a driver of changes in climatic conditions.

The Minister responsible for this folio (Penny Wong) has not responded to questions forwarded in December concerning the implications of mining in arid areas, in the case described, the Outback of South Australia.

Questions:

What is the gross water usage of the mining sector?

What water charges are placed on mining operations?

In terms of total embodied energy costs of mining operations with regard uranium is this considered in terms of any economic analysis vis a vis the benefits of Nuclear Energy as a response to Climate Change and the substitution of other forms of energy. Under the Rudd Administration will science be used as a tool in policy formulation and will scientists be enabled to form independent assessments without government interference (Future Dilemmas Report 2001 CSIRO, for example)?

What formulae is in place to enable receipt of compensation for damage to aquifer systems which would no longer be of use for human or agricultural purposes?

How does the responsible ministry assess damages to arid areas - desertification, alteration of water tables and loss of vegetation and the consequent impact on the local climate of these areas?

What is the impact of this on water reserves of the Great Artesian Basin?

What is the impact of radioactive and heavy metal contamination of aquifers in mine areas using the in-situ leaching mining practice?

Why is expert opinion (refer Gavin Mudd) and international situations of contamination with regard contamination being ignored by government agencies and ministries responsible for regulating mining at state and federal levels?

How does the government propose to recoup long term costs associated with damage to natural assets from short term mining operations which currently are not liable for these?

Attach Pdf for inclusion

Marathon not running by the rules

Nigel Carney

17 January 2008

Alleged environmental contamination at the Mount Gee Uranium deposit in the far north of South Australia is being investigated by the SA Government and the Environment Protection Authority (EPA). (ABC News Wed Jan 16, 2008 5:25pm AEDT). ¹ The plan to extract seven billion dollars worth of Uranium ore has been controversial from the outset, with Mount Gee being situated in the Arkaroola Wilderness Sanctuary and the mining process posing considerable threat to the ecology of the area and the ancient aquifers connected to the Paralana hot springs, a site of significance for the Adnyamathanha people.

Aboriginal elders of this part of country know the stories of creation concerning the journey of the Akurra dreamtime serpent and the deposition of the Uranium and most importantly that it should be left alone. In the face of inevitable development and Native Title Act divisions, some benefit from site clearance fees and royalties while others regard the stories and stay well clear. However, the implications of mining a mineral which has been so harmful to humanity extend beyond color or creed as the details of these mining processes reveal.

Marathon Resources exists primarily to extract Uranium ore from Mount Gee. A major shareholding is held by CITIC Australia, part of China's biggest global trading arm, CITIC Group. The Californian based Rand Corporation stated in a 1997 report that CITIC served as '*a conduit for military sales and acquisition*', a subsidiary of which is the Polytechnics Group. ² So then, what protocols exist to ensure the safe end use of ore from this project while one of the stakeholders is intricately connected to the Peoples Liberation Army (PLA) who have demonstrated an interest in procuring arms for countries which plan to include nuclear in their defense or attack strategies. Indeed, what is the criteria that determines who is responsible 'person', corporate or otherwise, to engage in such ventures? The damage done to the Arkaroola Sanctuary and the willful dumping of waste in that environment suggests no such criteria exists and Marathon has shown itself not to be a responsible 'person'.

With higher demand for Uranium, the potential impact upon global politics deserves consideration, particularly as Australia is party to the 1973 Nuclear Non Proliferation Treaty. The responsibility of maintaining the standards of this treaty in the sale of Uranium to China rests with Foreign Affairs and Trade and ultimately Cabinet. How Labor responds will be

interesting given that John Howard signaled the support of Uranium sales to India, not party to the treaty. Regardless of treaties, the government would be prudent to note of the Marathon situation and exercise more control in joint venture explorations and mining of Uranium.

Over the course of 2007 Marathon has been permitted by the South Australian Government to carve roads and drill holes in a Class A Conservation Zone, under the provisions of an exploration license. On the 17th of October, Mark Parnell of the SA Greens introduced the National Parks and Wildlife (Mining in Sanctuaries) Amendment Bill 2007³, an Act to amend the National Parks and Wildlife Act to prohibit mineral exploration and mining in wilderness sanctuaries. The current protection status afforded to the Arkaroola Sanctuary was not sufficient to stop mining exploration in the park.

Mount Gee is an intensively explored mountain, having been drilled in excess of one thousand times over the course of thirty years. To quote Pierpoint :

'Back in the early 1970s, Exoil drilled Mt Gee like a Cheshire cheese. It drilled 620 holes totaling 172,390 feet in the general area and, by Pierpoint's count, 45 of them were within 300 metres of Goldstream's discovery intersection. Indeed, if Goldstream had deliberately decided to punch a hole through an area of known mineralisation, it could hardly have sited [test drill] 003 better. There must be one patch of the Uranium deposit that has nearly been drilled hollow'. (24.08.2001 Goldstream's 003 Licensed to Thrill)⁴

So what has been the point of all this intensive drilling to prove over and again to shareholders, what already exists in the ground? And if these Uranium explorers have been extracting presumably tonnes of ore than where is that Uranium now? The intriguing story behind the many mining operations at Mount Gee stretches back into history and serves to warn us of risks of the highest order.

Of note, the British American Atomic Energy Agency were early visitors back in 1944 - they prepared an elite secret force, including Douglas Mawson (in between Antarctic missions) and Reg Sprigg (later to become leaseholder of Arkaroola and Mining proponent) to investigate what resources this mineral rich mountain could yield. The United States was in the process of attempting to monopolise world Uranium supplies including, at the time, a mine in the African Congo. It was a transformational era in global geo-politics revolving around the atom bomb which would ultimately

be tested on both urban Japan and Outback South Australia (Maralinga and Emu Field).

Mawson was equipped with a gold leaf electroscope to detect radiation, having met Marie Curie a year or so earlier, when she advised: 'Mawson, if you ever come across bright green or yellow minerals which you cannot identify suspect the new element Uranium – the mother of wonder element Radium'. The Mawson mission reported miraculous breccia formations around Mount Gee, Mount Painter, and Radium Hill. Reg Sprigg details some of the discoveries in his book, 'Arkaroola-Mount Painter...the Last Billion Years'. Phosphates of Uranium were found present in Torbernite, Autunite, Carnotite and other mineralized forms. But it soon became apparent that concentrated Uranium ore would be easier to recover as wash away mineral deposits below the ranges on the shores of Lake Frome, later established as the Beverley Uranium Mine.

However, few thousand pounds of Uranium ore were procured on this mission, a field trip souvenir not without consequence. Quoting from a recent Adelaide independent article, *Marathon Man*⁵, we discover more clues:

'Late in the war years, Uranium ore was dug out from around Mt Painter and strapped to the backs of camels that walked across the mountains on camel pads to the railway at Copley where it was sent on its way to the US atomic war effort.'

Exactly which portions of Uranium contributed to the Nagasaki, Hiroshima bombs and which went to Maralinga and Emu fields test sites is difficult to discern yet this history continues to serve as an ominous reminder that onus of responsibility relating to the safe use of Uranium is a political, economic and also moral question, not least in regard to environmental sustainability.

Clear evidence cited by independent Mining Hydrologist, Dr Gavin Mudd, highlights the risk posed currently by mining practices in Australia.⁶ The risk is posed to the little understood underground networks of ancient water channels seeping forth in springs fed by the cyclical breathing motions of the Great Artesian Basin. As well as threatening local water supplies for wildlife and human inhabitants these operations threaten long-term pollution of these ancient waterways, integral to our local weather pattern and climate. The responsibility of understanding and protecting these systems to enable the sustainable existence of life in these arid areas rests with the portfolio of Water and Climate Change, currently held

by Penny Wong. A 1978 report by the South Australian Department of Mines and Energy, *Environmental Consequences of In-Situ Leaching* (R.J. Allen) ⁷ reveals that safety was put aside in favor of development, accounting for the high risk situation we inherit today. The process adopted in South Australia was in fact gleaned from templates provided by the Texas Water Quality Board, while knowing (and stating) that pollution was going to be an outcome. The summary states:

'the only significant environmental questions concern possible contamination of aquifers and the ultimate disposal of liquid effluents. Operating companies are confident that methods being used are adequate to deal with these problems: assuming this optimism can be supported with quantitative data from the first generation plants (now in operation for three years) in situ leaching is a most acceptable process from an environmental viewpoint' (1978)

In the light of current evidence gathered by experts including Dr Mudd, such 'optimism' is no longer founded. Furthermore, the common sense safeguards outlined as required in the guidelines would prevent in-situ leaching in 'inappropriate areas' but these recommendations have not been observed in Australia. Irrespective of the geo-political risks posed by Uranium mining, the dilemma of in-situ leaching and the damage it can cause to water quality is justification alone to terminate the extraction of Uranium in this country.

Robin Kerin, Minister for Primary Industries and Natural Resources and Regional Development, echoes the viewpoint of the 1978 Report in dismissing the issue of pollution. In this ABC Earthbeat interview (21/11/98 - Beverley Uranium Mine ISL Technology) we hear both sides:

Alexandra de Blas: Gavin Mudd disagrees with the Company's arguments against environmental restoration and he challenges their claims about water quality.

Gavin Mudd: The Aquifer isn't as saline as the mining company is starting to point out. A lot of the ground water in sort of the broader Lake Frome frame region is of a similar salinity to what's in Beverley. So from a salinity point of view that's not a very appropriate argument. From a radionuclide point of view the average level of radioactivity in the ground water in that Beverley system at the moment is not that high. It's certainly above drinking water standards and it's not a source of water you would want to be using as a permanent you know, a drinking water source but if we leave that system naturally in its own state the levels are quite stable and they're

not that high. And the migration of those things and the potential for that to contaminate other ground water systems is fairly minimal.

Whereas the mining process will actually increase the levels of uranium and heavy metals and a whole range of other things up to a thousand times higher. Or sometimes even more for certain elements and then that has the potential not only to move away from the mining zone within that aquifer, and given that they don't know where that aquifer goes north or south of the mine, they think, they sort of suggest it might go this way but they can't prove it. But then there's also the level where that material being dissolved and mobile now can also contaminate the surrounding aquifer systems which are shallow and used by pastoralists. So to claim there is no need to rehabilitate the water is quite spurious.

Alexandra de Blas: But Heathgate Resources says there is no risk of contamination.

Gavin Mudd: That's just purely not born out by fact of operation of overseas mines. If we look at the US, if we look at the Czech republic, if we look at the Ukraine, Kazakstan everywhere where there has been an ISL mine there has been some level of groundwater contamination. And in some cases in Eastern Europe that level has been extreme.

Rob Kerin fails to respond to the most serious in-situ leaching hazards described by Dr Gavin Mudd:

Rob Kerin: Oh look this is an aquifer which is way out in the middle of nowhere. I don't know what they want it rehabilitated for because it's of absolutely no use now. It's an aquifer which as I said is hypersaline, radioactive, of no use for anything practical at present, why put enormous cost there for something that is not usable anyway.

Alexandra de Blas: Why didn't you get to look at options of treating the waste above ground rather than injecting it back into the aquifer?

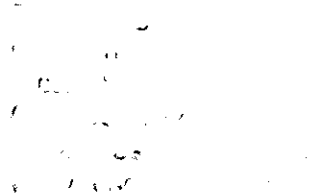
Rob Kerin: Well I think there would have been an enormous scream if we did try to do something above ground. This would be seen as the best way of actually disposing of it. I would have thought there would have been a hell of a scream if we wanted to do anything, you know not put it back.

Much of the current political acceptance of in-situ Uranium mining in Australia arises from the Climate Change imperative but if one is to examine the risk of damage to ecological systems such as the Great

Artesian Basin (the only reliable source of water for much of inland Australia), this energy source seems to be anything but a quick fix.

Given the questionable history of mining in this area and the current likelihood of contamination, it would be prudent to call for intervention and independent appraisals of what is occurring with existing mines. The fact that Uranium mining is being promoted in the absence of political and environmental safeguards, and that Marathon Resources is mining within a Environmental Class A Zone and burying waste core samples in contravention of guidelines would appear to be contrary to both the national interest and the world class status of Arkaroola as a billion year old living museum.

Nigel Carney



Nigel Carney is a freelance writer specialising in economics and transport energy. He has made contributions on these topics to The Age, The Australian, and the The Financial Review.

Footnotes:

1

Contamination probe at outback uranium site [ABC Online - Australia](#) Marathon Resources estimates there are about 43 million tonnes of uranium ore at Mount Gee and is making plans for underground mining to extract the ore. ... See all stories on this topic

2

Specific Entity Review

In addition to the conceptual concerns referenced in the previous section, a number of questions have been raised with respect to the funding activities of a few specific Chinese entities. This section will give priority to five Chinese entities (and/or their subsidiaries) that are likely held -- or have been held in the past -- in portfolio by one or more U.S. institutional investors: 1) CITIC; 2) Polytechnologies; 3) Cosco; 4) China Resources; and 5) Bank of China and other "big four" banks.

CITIC: China International Trust and Investment Corporation, or CITIC, is one of the largest and most influential of China's ITIC's. Between 1993 and 1994, the company launched four dollar-denominated debt offerings that attracted some \$800 million.¹⁰⁴ According to a 1997 USA Today article, CITIC "is actually run by the general staff of China's Military Commission."¹⁰⁵ The California-based Rand Corporation was more explicit in a 1997 report, reportedly stating that CITIC served "as a conduit for military sales and acquisition."¹⁰⁶

The activities of CITIC's Chairman, Wang Jun, have also elicited concern. According to a 1998 U.S. House of Representative Select Committee (or so-called "Cox Committee") report entitled, "U.S. National Security and Military/Commercial Concerns With the People's Republic of China:"

"Wang Jun is the son of the late PRC President Wang Zhen. Wang simultaneously holds two powerful positions in the PRC. He is Chairman of China International Trust and Investment Corporation (CITIC), the most powerful and visible corporate conglomerate of the PRC. He is also the President of Polytechnologies Corporation, an arms trading company and the largest and most profitable of the corporate structures owned by the PLA..."¹⁰⁷

Mr. Wang was also implicated in the campaign finance scandal. According to the Financial Times, Wang "was also connected to over \$600,000 in illegal campaign donations made to the DNC (in 1996) through Charlie Trie."¹⁰⁸

CITIC Pacific and CITIC Ka Wah Bank: Although these entities purport to be independent, commercial entities, the true identity of these companies remains questionable. A 1998 book entitled "Red Chips and the Globalization of China's Enterprises" determined CITIC Pacific to be "CITIC's publically-listed arm."¹⁰⁹ The thorough review of "red chips" and their mainland connections undertaken by Mr. Charles de Trenck of Credit Suisse First Boston and four other Hong Kong-based financial analysts went on to state that CITIC has a "controlling interest in the company" and that the subsidiary "appear[s] to bow to political pressure from Beijing."¹¹⁰ The book also touches on CITIC Ka Wah Bank which it observes "has remained directly in the hands of CITIC Beijing."¹¹¹ The stock of both of these Hang Sang-listed funding vehicles were held in portfolio by the California Public Employees Retirement System (CalPERS) as of 1999 as well as other U.S. public pension funds and private mutual funds.¹¹²

From http://www.uscc.gov/researchpapers/2000_2003/reports/cpmkba.htm

3

Legislative Council

GREENS BILL: Prohibiting Mining in Wilderness Sanctuaries

October 17th, 2007

On the 17th of October, Mark introduced a Private Members Bill, National Parks and Wildlife (Mining in Sanctuaries) Amendment Bill 2007, for an act to amend the National Parks and Wildlife Act to prohibit mineral exploration and mining in wilderness sanctuaries.

The Hon. M. PARNELL: This Bill seeks to protect some of the most important environments in South Australia, and they are sanctuaries under the National Parks and Wildlife Act. Sanctuaries under this legislation are a little known but very important part of our conservation estate. Sanctuaries are created by ministerial declaration under section 44 of the National Parks and Wildlife Act. Section 44 provides that, if the minister is of the opinion that it is desirable to conserve the animals or plants for which any land is a natural habitat or environment, then the minister may, by notice in the Gazette, declare the land to be a sanctuary. The pre-conditions for declaration are that either the land is already reserved or dedicated for a public purpose and the person to whom the care, control and management of that land has been committed has consented to the declaration or, if it is privately owned land, then the owner or occupier of the land must consent to the declaration. The protection of animals and plants in the sanctuaries is provided for by section 45 of the act, whereby a person must not take the eggs of an animal or a native plant other than in pursuance of this section. So, sanctuaries provide a level of protection.

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Marathon Man

Bill Nicholas

Adelaide Independent Weekly

CBD section, 11th-17th August 2007

6

ABC Earthbeat Program

<http://www.abc.net.au/rn/science/earth/stories/s17221.htm>

7

PIRSA website