

**De :** Mia Pepper [<mailto:Mia.Pepper@ccwa.org.au>]

Les enjeux de la filière uranifère au Québec

**Envoyé :** 16 octobre 2014 01:47

6211-08-012

**À :** uranium

**Cc :** [uranium2015@naturequebec.org](mailto:uranium2015@naturequebec.org)

**Objet :** Submission to the uranium mining public commission - from Western Australia

**Importance :** Haute

To the Commission on Uranium Mining Canada

A Canadian company Cameco has exploration and mine proposals for Western Australia's two largest uranium deposits.

The environment movement and local communities are deeply concerned, not only because of the unique and dangerous properties of uranium but also because of the past performance and behaviour of the company (see attached). In Australia there is no single example of a uranium mine that has operated safely and been rehabilitated successfully. Closed and abandoned uranium mine represent an ongoing liability to Governments and Tax payers around Australia. The external impacts of the industry are very unfairly put back on the public that has opposed their operation.

For your inquiries, and we congratulate you on undertaking such an investigation, we would like to [contribute a video](#) – if features a number of Aboriginal elders from a community called Parnngurr (Bung-or) in the Pilbara region of West Australia – where Cameco have a proposal to mine a deposit known as Kintyre – an area that was excised from a National Park to facilitate mining, undermining the unique environmental qualities of that area. This link will allow you to download the video (which is too big to attach) <https://mega.co.nz/#!ZxQQ0QKS!IZGg4dBbvGp98mSKE9NMKVwnYEF0zEGvrfacrgpcW-s> Also attached is a written document that accompanied the video which was lodged with the West Australian Office of the Appeal Convenor – challenging the Environmental Protection Authorities recommendation to approve the Kintyre uranium mine. The Appeals process is still underway with investigations ongoing throughout October and expect to continue in to November.

There has been a number of [allegations about](#) corruption in the Indigenous Land Use Agreement Signed between Cameco and the Native Title Holders, this video includes comments from elders about how they voice has been sidelined. There are some investigations in the representative body of the Martu who brokered the deal with Cameco.

In regards to the impacts of uranium mining more generally I would recommend the commission speak to Dr Peter Karamoskos, who is on the Australia Radiation Protection and Nuclear Safety Agency (ARPANSA) committee and did a study on workers at Olympic Dam uranium mine in South Australia finding there was about 50% non-compliance with wearing safety gear. <http://evatt.org.au/papers/nuclear-power-public-health.html> <http://www.onlineopinion.com.au/view.asp?article=11358&page=0> [http://www.mapw.org.au/files/downloads/Nuclear-power-uranium-mining-&-public-health\\_MAPW-Factsheet.pdf](http://www.mapw.org.au/files/downloads/Nuclear-power-uranium-mining-&-public-health_MAPW-Factsheet.pdf)

Attached is also a statement signed by a number of medical Dr's, including Dr Peter Karamoskos, about Cameco (Canadian company) and their promotion of the 'hormesis theory' – the view that low doses of radiation are not only safe but good for your health – a view that has been

proliferated by Dr Doug Boreham a Canadian scientist – through multiple tours in Australian cities and remote communities, funded on at least one occasion by Cameco. As you will see from the statement this theory has been discredited by some of the world's most reputable organisations.

In your inquires you may also find some utility in the work of Australian academic Dr Gavin Mudd - a environmental engineer and senior lecturer at Monash University and an internationally renowned boffin who has done a significant body of work around the long term rehabilitation of uranium mines. He has a number of published and peer reviewed paper on this topic which are listed here – but you will need access to academic journals to view – sorry we could not provide that to you.

Journals :

- Mudd, G M & Diesendorf, M, 2008, Sustainability of Uranium Mining : Towards Quantifying Resources and Eco-Efficiency. *Environmental Science & Technology*, 42 (7), pp 2624-2630.
- Mudd, G M, 2008, Radon Releases From Australian Uranium Mining and Milling Projects : Assessing the UNSCEAR Approach. *Journal of Environmental Radioactivity*, 99 (2), pp 288-315.
- Mudd, G M, 2005, A Detailed Analysis of Radon Flux Studies at Australian Uranium Projects. *Radiation Protection in Australia*, December, 22 (3), pp 99-119.
- Mudd, G M, 2005, The Legacy of Early Uranium Efforts in Australia 1906 to 1945 : From Radium Hill to the Atomic Bomb and Today. *Historical Records of Australian Science*, 16 (2), pp 169-198.
- Mudd, G M, 2001, Critical Review of Acidic In-Situ Leach Uranium Mining : 2 Soviet Block and Asia. *Environmental Geology*, December 2001, 41 (3-4), pp 404-416.
- Mudd, G M, 2001, Critical Review of Acidic In-Situ Leach Uranium Mining : 1 USA and Australia. *Environmental Geology*, December 2001, 41 (3-4), pp 390-403.
- Mudd, G M, 2000, Mound Springs of the Great Artesian Basin in South Australia : A Case Study From Olympic Dam. *Environmental Geology*, 39 (5), pp 463-476.

Conferences

- Mudd, G M & Diesendorf, M, 2007, The Sustainability of Uranium Mining: The Growing Implications of Known Mineral Resources and Eco-Efficiency. In "SSEE 2007 International Conference on Engineering Sustainability", Perth, WA, November 2007.

- Mudd, G M & Diesendorf, M, 2007, Sustainability Aspects of Uranium Mining : Towards Accurate Accounting ?. In "2nd International Conference on Sustainability Engineering and Science : Talking and Walking Sustainability", Auckland, New Zealand, February 2007.
- Mudd, G M, 2002, Uranium Mill Tailings in the Pine Creek Geosyncline, Northern Australia : Past, Present and Future Hydrogeological Impacts. Proc. "Uranium Mining & Hydrogeology III - 3RD International Conference", Freiberg, Germany, Sept. 2002, pp 831-840.
- Mudd, G M, 2002, Environmental Hydrogeology of In Situ Leach Uranium Mining in Australia. Proc. "Uranium Mining & Hydrogeology III - 3RD International Conference", Freiberg, Germany, Sept. 2002, pp 49-58.
- Mudd, G M, 2000, Remediation of Uranium Mill Tailings Wastes in Australia : A Critical Review. Proc. "2000 Contaminated Sites Remediation Conference", CSIRO Centre for Groundwater Studies, Melbourne, VIC, December 4-8, 2000, Vol. 2, pp 777-784.
- Mudd, G M, 1998, The Long Term Sustainability of Mound Springs In South Australia : Implications For Olympic Dam. Proc. "Uranium Mining & Hydrogeology II Conference", Freiberg, Germany, September 15-17 1998, pp 575-584.

I will be in Canada, in Toronto from the 22<sup>nd</sup> to the 27<sup>th</sup> of October 2014 – if I can be of any assistance please let me know.

Much respect

**Mia Pepper**

Nuclear Free Campaigner

Conservation Council of Western Australia (Inc.) City West Lotteries House, 2 Delhi St, West Perth  
[mia.pepper@ccwa.org.au](mailto:mia.pepper@ccwa.org.au) [www.ccwa.org.au](http://www.ccwa.org.au) M 0415 380 808 T (08) 9420 7291 F (08) 9420 7273



Join the nuclear free campaign [Donate](#) [Facebook](#) [Twitter](#)

# Cameco Promotes Radiation Junk Science

January 2013

Cameco is the world's second largest uranium mining company. Cameco, a Canadian based company, have 27 uranium exploration programs in Australia. They have one active proposal to mine uranium at Kintyre an area excised from the Karlamilyi National Park in the Pilbara region of West Australia.

Cameco has consistently promoted the fringe scientific view that exposure to low-level radiation is harmless. Cameco has actively lobbied the International Commission on Radiological Protection on increasing permissible doses of radiation.

Cameco has been involved in speaking visits to Australia by Canadian scientist Dr Doug Boreham, who argues that low-level radiation is actually beneficial to human health.

Those views are at odds with mainstream scientific evidence and expert assessment. For example:

- A 2010 [report](#) by the United Nations Scientific Committee on the Effects of Atomic Radiation states that "the current balance of available evidence tends to favour a non-threshold response for the mutational component of radiation-associated cancer induction at low doses and low dose rates."
- The 2006 [report](#) of the Committee on the Biological Effects of Ionising Radiation (BEIR) of the US National Academy of Sciences states that "the risk of cancer proceeds in a linear fashion at lower doses without a threshold and ... the smallest dose has the potential to cause a small increase in risk to humans." The report also concludes that claims that low-level radiation exposure may be beneficial to human health are "unwarranted".
- A [review](#) published in the Proceedings of the National Academy of Sciences (US) in 2003 concluded that: "Given that it is supported by experimentally grounded, quantifiable, biophysical arguments, a linear extrapolation of cancer risks from intermediate to very low doses currently appears to be the most appropriate methodology."

It is irresponsible for Cameco to consistently promote fringe scientific views and to ignore mainstream scientific evidence and expert assessment.

Even more alarming is that Cameco have actively promoted this view through their newsletters to Aboriginal communities about the Kintyre project. Recent scientific research has heightened concern about exposure to radon, the main source of radiation doses to uranium industry workers. In 2009, the International Commission on Radiological Protection concluded that radon gas delivers almost twice the radiation dose to humans as originally thought and the Commission is in the process of reassessing permissible levels. Previous dose estimates to miners need to be approximately doubled to accurately reflect the lung cancer hazard.

We call on Cameco to stop promoting fringe scientific views to uranium industry workers and to the public at large.

## **Signatories (all medical doctors working in Australia):**

1. Margaret Beavis MBBS FRACGP
2. Peter Karamoskos MBBS, FRANZCR
3. Hilary Tyler MBChB, FACEM
4. Tilman Ruff MBBS (Hons), FRACP
5. Jenny Grounds MBBS, DRANZCOG, Grad Dip Med Acup.

6. Bill Williams MBBS
7. Rosalie Schultz MBBS, FAFPHM
8. James Rossiter AM, DU Deakin Honoris Causa, FRACP, FRCP Ed, MRCS, LRCP, MMSA, DCH, DObstRCOG
9. Rachel Darken MBBS, DPM
10. Michael Fonda MBBS, B.Med.Sci, FRACGP
11. Sue Wareham OAM, MBBS
12. Peter Shannon, MBBS, DPM, FRANZCP
13. Jason Garrod MBBS, FACRRM
14. Simon Leslie MBBS
15. Ben Bartlett MBBS, MPH, FAFOEM, FAFPHM, MRACGP
16. Fiona Russell BMBS, FRACP, MPHTM, Grad Dip(Clin Epi), PhD
17. Megan Passey B.Med (Hons), MPH, MSc, DipFP
18. Ken Harvey MBBS, FRCPA
19. Sandra Thompson BSc(Med), MBBS, MPH, PhD, Grad Dipl Management
20. Marion Carey MBBS (Hons.), MPH, FAFPHM, FRSPH
21. George Crisp MBBS, MRCGP
22. Harry Cohen AM, MBBS, FRACOG
23. Heath Kelly MBBS, Bsc, MPH, FAFPHM
24. Catherine Silsbury MBBS, MHSc, FACHAM
25. Colin D. Butler BMedSci(Hons), BMed, DTM&H, MSc(epi), PhD
26. Peter Tait MBBS, DipRACOG, FRACGP, MClimChng, MPHAA
27. Stephen Connor MBBS, MPH, BPharm (Hons), MRPharmS, Dip.Clin. Pharm
28. Chris Wright MBBS, FRACP, FCICM
29. Bobby Sundaralingam MBBS, FRANZCR, ANZSPNM, BSc
30. Frederick Mendelsohn MD, PhD, FRACP, FAA, AO
31. Sally Attrill MBBS, B.Med.Sci., FRACGP, DRANZCOG
32. Elizabeth Moore MBBS
33. Ruth A. Mitchell BMBS, BA, BSc
34. Janet Bodycomb BSc, MBBS, FRACGP
35. Adam Badenoch BSc BMBS
36. Kristen Pearson MBBS, FRACP
37. Jane Ralls MBBS MRCGP (UK)
38. Tom Keaney MBBS
39. Peter Markey BMBS, DA, DRCOG, DTM&H, MPH, FAFPHM
40. Alison Creagh MBBS, DRANZCOG
41. Linda Selvey MBBS(Hon), PhD
42. Lucy Owen MBBS
43. Kate Jackson MBBS, DTM+H, FRCA, FACHPM (RACP), FFPMANZCA