

**Senate Community Affairs Committee**

**ANSWERS TO ESTIMATES QUESTIONS ON NOTICE**

**HEALTH AND AGEING PORTFOLIO**

**Budget Estimates 2013-14, 5/6 & 7 June 2013**

**Question:** E13-133

**OUTCOME:** 1 - Population Health

**Topic:** Plans for Uranium Mining in Queensland

**Type of Question:** Hansard Page 79, 6 June 2013

**Senator:** Ludlam

**Question:**

Can you tell me again about this letter? What did the letter invoke or request?

**Answer:**

The correspondence received and the response from Australian Radiation Protection and Nuclear Safety Agency is attached (Attachment A).



**Queensland  
Government**

For reply please quote: UMICS/GR – TF/12/30563 – DOC/12/219962

Department of the  
**Premier and Cabinet**

**22 NOV 2012**

Dr Carl-Magnus Larsson  
Chief Executive Officer  
Australian Radiation Protection and Nuclear Safety Agency  
PO Box 655  
MIRANDA NSW 1490

Dear Dr Larsson

**Recommendation of uranium mining in Queensland**

On 22 October 2012, the Honourable Campbell Newman MP, Premier and the Honourable Andrew Cripps MP, Minister for Natural Resources and Mines, announced the recommencement of uranium mining in Queensland.

To oversee the recommencement of uranium mining in Queensland, the Premier has established a Uranium Mining Implementation Committee (the committee) to recommend a best practice policy framework for the orderly development and operation of a uranium mining and export industry in Queensland.

I have been appointed as Chair of the committee, which includes other members with a strong and diverse set of skills. Other members of the committee include:

- Mr Dan Hunt, Director-General, Department of Natural Resources and Mines
- Ms Noeline Ikin, Chief Executive Officer, Northern Gulf Resource Management Group
- Ms Frances Hayter, Environment Director, Queensland Resources Council
- Dr Geoff Garrett, Queensland Government Chief Scientist
- Mr Warren Mundine, Director, Australia Uranium Association and Indigenous leader.

The role of the committee is to advise the Queensland Government on a framework that will ensure that uranium mining recommences with world's best practice environmental and safety standards, while creating an attractive environment for investment. I have attached a copy of the committee's terms of reference for more information.

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As an organisation with a significant interest in this matter, the committee is seeking your feedback on what you consider will provide the foundations for best practice uranium exploration and mining. This will assist in developing a framework that is contemporary and reflective of practical industry experience.

Enclosed is a document which contains questions which will assist you in providing your feedback. This feedback will inform the final report that is to be delivered by the committee. The report, and associated recommendations, are to be provided to the Queensland Government in March 2013.

Therefore, it would be extremely helpful if you could provide your brief submission, based on the questions outlined in the attached document, to:

Uranium Mining Implementation Committee Secretariat  
Attention: Mr Geoff Robson, Director  
Email: Geoff.Robson@premiers.qld.gov.au  
Post: PO Box 15185, City East, Queensland 4002

Please be aware that it is the committee's intention to release all submissions received publicly on the Queensland Government's website. If you do not wish for this to occur, or require certain details to remain confidential (e.g. for commercial-in-confidence reasons), please ensure you declare this when submitting your feedback to the secretariat.

I would appreciate receiving your submission by close of business 17 December 2012.

Yours sincerely



Councillor Paul Bell AM  
**Chair**  
**Uranium Mining Implementation Committee**

**\*Encls**

## **Terms of Reference**

### **Implementation Committee**

#### **To advise on the recommencement of Uranium Mining in Queensland**

The Implementation Committee (the committee) is asked to report to Government recommending a best practice policy framework for the orderly development and operation of a recommenced uranium mining and export industry in Queensland. The framework should ensure that uranium mining recommences with world's best practice environmental and safety standards, while creating an attractive environment for investment.

The Committee has been asked to report to Government by Monday 18 March 2013.

As part of its investigation, the Committee should consider:

- The context of uranium mining as currently permitted across other jurisdictions in Australia
- The appropriate role of the State Government in regulating the mining and export of uranium — having regard to Queensland's legislation and regulation framework and the role of the Federal Government
- Creating real jobs and opening up real opportunities for Indigenous employment and training, including partnerships with industry
- Regional and community development opportunities including job creation and addressing any social impacts
- Safety and logistics issues associated with the mining, transport and export of uranium from Queensland
- Workplace health and safety standards equal to the world's best
- Environmental safeguards associated with the mining, transport and export of uranium
- Uranium mining rehabilitation requirements, standards and the use of appropriate financial or other assurances
- Infrastructure and security issues associated with the processing, transport and export of uranium mined in Queensland, with particular reference to the use of export facilities in Queensland or interstate
- Establishing a best practice approval process for the uranium industry
- Developing appropriate cost recovery mechanisms for State Government regulatory activities, proportionate to the regulatory effort the industry imposes and consistent with promoting best practice regulation
- The appropriate royalty regime for the State
- Any other matters the Committee deems relevant to implementing the Government's decision to recommence uranium mining in Queensland

These terms of reference do not extend to the use of uranium as fuel for nuclear energy production in Queensland or for the disposal of nuclear waste produced by external customers of this material.

### **Health organisations**

- i. What are the environmental risks specific to the mining of uranium in Queensland that need to be addressed, and how should they be taken into account?
- ii. Are there examples of regulatory failures in other jurisdictions (both within and external to Australia) that have resulted in, exacerbated or prevented the remediation of environmental impacts from uranium mining?
- iii. What are the strengths and weaknesses of existing regulatory frameworks for uranium mining activities in Australia?
- iv. What best practices should be applied to the Queensland approvals framework to ensure the highest safety and health, environmental and rehabilitation outcomes are achieved in relation to any future uranium mining projects in Queensland?



**Australian Government**

**Australian Radiation Protection and Nuclear Safety Agency**

Z12020625

14 December 2012

Councillor Paul Bell  
Uranium Mining Implementation Committee  
PO Box 15185  
City East QLD 4002

Dear Councillor Bell

**Re: Recommencement of uranium mining in Queensland**

Thank you for your letter received 26 November 2012 and for the opportunity to provide feedback into the work program of the Uranium Mining Implementation Committee in its consideration of a best practice policy framework for the uranium mining and export industry in Queensland.

The Commonwealth through the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and the Radiation Health Committee (RHC) has a role in promoting national uniformity in radiation protection policy and practices across jurisdictions, including the development of a range of radiation related publications to be adopted nationally. The *National Directory for Radiation Protection* (NDRP) has been endorsed by the Australian Health Ministers' Conference (AHMC) as the uniform national framework for radiation protection regulation in Australia.

As such, State and Territory governments have undertaken to incorporate the NDRP requirements including the codes and standards into their regulatory frameworks, and this applies to whichever agency (radiation health, mining or occupational health and safety) takes the lead on a particular issue. There are a number of relevant documents in the Radiation Health Series and Radiation Protection Series that should be taken into account for uranium mining, including:

- *Recommendations for Limiting Exposure to Ionizing Radiation* (1995) and *National Standard for Limiting Occupational Exposure to Ionizing Radiation* (republished 2002), RPS 1;
- *Code of Practice for the Safe Transport of Radioactive Substances* (2008), RPS 2;
- *Code of Practice and Safety Guide for Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing* (2005), RPS 9;
- *Safety Guide for Monitoring, Assessing and Recording Occupational Radiation Doses in Mining and Mineral Processing* (2011), RPS 9.1;
- *Code of Practice and Safety Guide for Safe Use of Fixed Radiation Gauges* (2007), RPS 13;

- *Code of practice for the safe use of sealed radioactive sources in borehole logging (1989)*, RHS 28.
- *Code of practice for the near-surface disposal of radioactive waste in Australia (1992)* RHS 35.

Regulation of radiation protection in the mining industry should follow best practice regulatory principles and will need to consider a cradle-to-grave risk-based approach, from exploration and operation to disposal and decommissioning. It should minimise duplication, uncertainty, inconsistency and unnecessary red tape. Australian workers in the mining and milling industry, the public and the environment should be protected from radiation hazards through an effective system of regulation with clear guidance for both compliance and best practice which are underpinned by the principles enshrined in Radiation Protection Series (RPS) 1 publications.

Current areas of best practice in radiation protection that are the focus of national uniformity include:

- The proposed *International Commission on Radiological Protection (ICRP)* changes to the methodology for assessing effective dose from inhalation of radon progeny, which the ICRP will introduce in 2013, will have significant implications for the uranium mining industry worldwide, particularly for underground uranium mines.
- In Australia, the longstanding approach to radiation protection of wildlife in natural habitats has been to assume that if humans are adequately protected then other species are also protected. This approach is no longer consistent with international best practice. Australia is now developing guidance on radiation protection of wildlife in natural habitats to ensure that a uniform national approach is adopted in line with international best practice. This approach is outlined in the report, *Environmental protection: Development of an Australian approach for assessing effects of ionising radiation on non-human species* (ARPANSA/TR154). Guidance is expected to be published by ARPANSA in 2013 and will be applicable to the uranium mining and milling industry.
- ARPANSA maintains the Australian National Radiation Dose Register (ANRDR). The ANRDR provides a single uniform national approach to the management of radiation dose records for uranium mine workers and ensures the longevity of records beyond the working life of a uranium mining operation, so that records remain available to workers. The ANRDR has been open to receive dose records from uranium mine operators since 1 July 2010. A worker can request a dose history report from ARPANSA which will show the cumulative dose the worker has received during the course of their employment in the uranium mining and milling industry in Australia, and while the worker has been registered on the ANRDR.

For an operator to submit dose records to the ANRDR and to meet the requirements of the *Commonwealth Privacy Act 1988*, appropriate legal tools relevant to their regulatory jurisdiction must be applied. Different jurisdictions have taken different approaches. In South Australia a condition of licence has been issued to operators of uranium mining and milling practices requiring the submission of dose records to the ANRDR. In the Northern Territory, legislative changes to the *Radiation Protection Act* were implemented in 2012. It is anticipated that any privacy concerns raised by



future expansion of the ANRDR to other jurisdictions can be solved by following the examples set by South Australia and the Northern Territory.

Australia is a Member State of the *International Atomic Energy Agency* (IAEA). The IAEA develops international regulatory systems and conventions to build and strengthen the international safety and security regime. ARPANSA administers Australia's rights and obligation under the *Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management* which was ratified by Australia in August 2003, and the *Convention on Nuclear Safety* which was ratified by Australia in March 1997. All jurisdictions have signed up to these conventions and it is expected that the Australian uranium mining and milling industry will contribute as required. ARPANSA's Radiation Protection Series publications are based on the IAEA radiation protection framework, representing best practice drawing from the many documents in the IAEA technical and safety series relevant to best practice radiation protection in uranium mining and milling. For example:

- *Radiation Protection in the Mining and Processing of Raw Materials Safety Guide, Series No. RS-G-1.6;*
- *Management of Radioactive Waste from the Mining and Milling of Ores Safety Guide Series No. WS-G-1.2.*

For further information about how the international and national radiation protection frameworks and obligations that have been adopted in the Queensland jurisdiction, please contact the Director of the Radiation Health Unit in Queensland Health ([radiationprotection@epa.sa.gov.au](mailto:radiationprotection@epa.sa.gov.au), Tel (08) 8463 7826).

Please contact me via Dr Rick Tinker, Section Head of Environmental and Health Assessment on (03) 9433 2326 or [rick.tinker@arpansa.gov.au](mailto:rick.tinker@arpansa.gov.au) if you require any further information.

Yours sincerely



Prof Peter Johnston  
Acting CEO of ARPANSA