



Our Ref: 26-04433

Hon Brian Ellis MLC
Chairman
Standing Committee on Environment and Public Affairs
Parliament House
PERTH WA 6000

Dear Mr Ellis

PETITION NO 38 - URANIUM MINING IN WESTERN AUSTRALIA

The committee's letters to me and to the Premier of 10 September 2009 seeks comments on the terms of Petition No. 38 – Uranium Mining in Western Australia and the submission from the principal petitioner. I thank you for the opportunity to comment on the preliminary inquiry into uranium mining in Western Australia, currently being undertaken by the Standing Committee on Environment and Public Affairs. My response, which is also on behalf of the Premier and the State Government, is divided into three parts, to address a number of issues raised in the petition the Committee received from the Anti-Nuclear Alliance of Western Australia.

Please note that responses to the issues raised are only in the context of uranium mining, as the Western Australian Government does not support the development of a nuclear power industry in this State.

Uranium mining was not addressed in the election campaign and the Government is a minority government

To the contrary, uranium mining was addressed during the election campaign. The Premier's position and the position of the Liberal Party of Western Australia in favour of removing the ban on uranium mining was clearly stated and amply publicly reported before and during the election campaign, as was the support of the opposition parties for maintaining the ban. The public was well aware of the issue and of the unambiguous opposing positions and the voters made their choice

Despite the former Government's commitment to legislate to ban uranium mining and exploration, the Parliament of Western Australia has not passed any such law. Mining uranium in Western Australia was prohibited under the policy of the former State Government from June 2002 until to September 2008. On November 17, 2008, the current State Government revoked this policy. This amendment of Government policy is consistent with the Government's election platform and mandate and is entirely proper and within its authority.

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Issues associated with the uranium industry

The Anti-Nuclear Alliance of Western Australia goes into greater detail on these and other issues about which they have concerns in the material attached to the petition. These issues have been extensively canvassed in public over many years, including several debates in Parliament. For extensive analysis of these issues, I refer the Committee to “Uranium mining, processing and nuclear energy: opportunities for Australia?”, the report of the taskforce commissioned by the former Prime Minister in 2006 to undertake an objective, scientific and comprehensive review of uranium mining, value-added processing and the contribution of nuclear energy in Australia in the longer term. The committee could also refer to “Australia’s Uranium – Greenhouse Friendly Fuel for an Energy Hungry World” published by the House of Representatives Standing Committee on Industry and Resources in November 2006.

Health issues

Western Australia’s current regulatory framework, in combination with international and Commonwealth legislation, guidelines and policies, provides for the safe development of uranium mining and associated activities.

In collaboration with the Radiation Industry Group of the Chamber of Minerals and Energy Western Australia, the Department of Mines and Petroleum (DMP) has released revised guidelines for managing naturally occurring radioactive material (NORM) in mining and mineral processing.

The State Government is also working with the Commonwealth, through its joint industry/government Uranium Industry Framework Implementation Group, to ensure that the Western Australian regulatory framework for uranium is consistent with national standards and approaches

The State has a long history of regulating radioactive substances in mineral sands and tantalum mining operations including the transportation of products, the management of radioactive waste and the export of radioactive minerals. The State has also been regulating uranium exploration activities.

In Western Australia, the prime legislative responsibility for all aspects of radiation safety (including medical, research, industrial, sealed radioactive sources, mining and transport) lies with the Radiological Council which is charged with administering the *Radiation Safety Act 1975* and a number of radiation safety regulations under this Act. The *Radiation Safety Act* establishes the Radiological Council as an independent statutory authority responsible directly to the Minister for Health.

In addition, there are radiation protection controls placed on the mining industry under the *Mines Safety and Inspection Act 1994*, through Part 16 of the *Mines Safety and Inspection Regulations 1995*. Part 16 is administered by the State Mining Engineer and its primary aim is to protect mine workers from the effects of radiation exposure. The regulations also cover the effects of radiation to the public and the environment. The State Mining Engineer also sets conditions that must be met prior to the abandonment of any site. Once mining operations cease, the site will remain registered under the *Radiation Safety Act* until the Radiological Council approves the release of the site and terminates the registration.

Amendments were made on 21 July 2009 to Part 16 of the *Mines Safety and Inspection Regulations 1995* which require uranium exploration operators to conduct

a baseline environmental radiation monitoring program, prepare a radiation management plan and classify designated employees.

It is the policy of the State Government that export of uranium will not be allowed through any ports surrounded by residential development in Western Australia. Current plans are for all uranium to be transported by road or rail to South Australia or the Northern Territory for export. Materials for export will be sealed in metal drums and stored and braced in shipping containers in compliance with the Australian Radiation Protection and Nuclear Safety Agency's *Code of Practice for the Safe Transport of Radioactive Material (2008)*. The transport of radioactive materials is also regulated by the Commonwealth's *Nuclear Non-proliferation (Safeguards) Act 1987*.

As with other industries involved with radioactive materials, transportation companies for uranium projects will be licensed under the Radiological Council and drivers will have training for the transport of radioactive substances.

Additional resources have been approved for DMP's Resources Safety Division, including funds for an additional two senior radiation safety personnel to be employed to facilitate the safe introduction of uranium mining.

To put the expected exposure to radiation of mine workers in perspective, the world-wide population average annual dose from natural background radiation is about two or three millisieverts (mSv) per year. The typical uranium mine worker is exposed to an additional five mSv each year (the annual occupational limit for uranium workers is set at 20 mSv). A CAT scan is about 10 to 20 mSv.

Government subsidies/cost issues

The Western Australian Government will not be subsidising the mining of uranium. The cost of mining uranium, like other commodities, is a commercial issue for proponents.

In addition to providing employment and other flow-on effects, the uranium mining industry in Western Australia is expected to contribute around \$25 million per annum in royalty payments by 2014 (based on production of 5000 tonnes at a spot price of \$100 per kilogram).

Pollution and greenhouse gases

Any proposal to mine uranium in this State will be subject to stringent environmental impact assessment procedures under both State and Commonwealth environmental protection legislation, including formal assessments by the Environmental Protection Authority (EPA).

As with any other mining operation, uranium mines are required to minimise emissions where possible and rehabilitate all mining disturbances to approved standards. Companies will need to demonstrate that the rehabilitation is safe for the public and wildlife, contains stable landforms that do not erode or collapse, that air and water quality around the site is not impacted and that the ecosystem is able to re-establish.

As part of the approval of mining proposals, DMP will require uranium mining companies to lodge environmental bonds to cover the full cost of rehabilitation.

Pre-mining radiation monitoring will also be required at uranium mine sites so that the success of closure can be demonstrated.

Green house gas emissions from uranium mining projects do not differ substantially to other mining operations and vary, to a large extent, on the grade and depth of the ore. DMP is working closely with the Australian Government to further explore the possibilities for low emission technologies. This includes supporting the nomination of the Collie South-West Hub as part of the Carbon Capture and Storage Flagship Projects program.

Safely dealing with nuclear waste

The State Government continues to support the *Nuclear Waste Storage and Transportation (Prohibition) Act 1999*, introduced by the former Court Liberal Government, which prohibits the storage of nuclear waste in Western Australia.

Water consumption

As with emissions, the amount of water consumption required by individual mine sites varies, to a large extent, on the grade of the ore. While the amount of water consumed per tonne of uranium ore processed is comparable to metals such as copper and nickel¹, the relatively lower grade of uranium ore processed means that the amount of water required to produce a tonne of U₃O₈ (as compared to a tonne of copper and nickel) would be greater.

Other metals such as gold and platinum are typically mined at grades lower than that of uranium and subsequently are associated with higher levels of water consumption.

Other factors affecting water consumption include the mining and processing techniques utilised and the amount of water that is able to be re-used or recycled.

Like any other mining project, the State Government will manage water usage and any potential impact on water resources by uranium mining projects through a comprehensive licensing and environmental management process. Companies will be required to demonstrate sustainable water management practices through the Environmental Impact Assessment process prior to approval being granted to mine. The Department of Water and other relevant stakeholders will be consulted in this process.

Renewable energy options

The Western Australian Government strongly supports the development of renewable energy. The Government supported the new national 20% renewable energy target scheme through COAG. The State supports renewable energy through a wide range of existing policies and initiatives, including the Low Emission Energy Development fund, the Solar Schools program, the Western Australian Geothermal Centre of Excellence, and many others. The Government is currently developing a Renewable Energy Plan and developing a feed-in tariff to enhance these measures.

¹ Dr G Mudd, excerpt from "Sustainability Reporting and Water Resources: a Preliminary Assessment of Embodied Water and Sustainable Mining, August 2009, published on the Australian Journal of Mining's website.

In addition, DMP is the lead agency for supporting geothermal energy in the State. In 2008-09, 36 geothermal exploration permits were offered with a potential work program worth more than \$500 million, demonstrating this Government's commitment to diversifying its energy portfolio.

I thank you for the opportunity to input into this very important process.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Norman Moore', with a long horizontal flourish extending to the right.

NORMAN MOORE MLC
MINISTER FOR MINES AND PETROLEUM

12 NOV 2009