



Australian Government

Department of the Environment and Heritage

Office of the Secretary

Dr Ziggy Switkowski
Chairman
Uranium Mining, Processing and Nuclear Energy Review Taskforce
C/- Department of the Prime Minister and Cabinet
3-5 National Circuit
Barton ACT 2601

Dear Dr Switkowski

I notice that you have invited interested individuals and organisations to lodge submissions to your Taskforce. It is not the intention of my Department to lodge such a submission; however, I note that we have recently provided a submission and two supplementary submissions (Numbers 55, 55.1 and 55.2) to the Standing Committee on Industry and Resources in relation to their examination of the case study '*Strategic Importance of Australia's Uranium Resources*'. Copies of those submissions are attached for your information.

As you will see from these submissions, one of the key issues for this Department is Australian Government regulation of uranium mining. In my view, effective and nationally consistent oversight of uranium mining by the Australian Government is likely to be a key element in garnering community support for an expanded Australian industry.

The Department's role in uranium arises from two pieces of legislation – the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the *Environment Protection (Alligator Rivers Region) Act 1978*.

Under the EPBC Act, protection of the environment from uranium mining is a matter of national environmental significance. Proposals for new uranium mines or major expansions of existing uranium mines are, therefore, subject to regulation by the Australian Government under the EPBC Act.



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GPO Box 787 Canberra ACT 2601 Telephone 02 6274 1550 Facsimile 02 6274 1552

Internet: www.deh.gov.au ABN: 34 190 894 983



MEMBER

Under the *Environment Protection (Alligator Rivers Region) Act 1978*, the Supervising Scientist, a statutory office holder within the Environment and Heritage Portfolio (supported by officers of this Department), works with the Northern Territory Government in a cooperative and streamlined approach to the management of the Ranger uranium mine. Day-to-day regulation is carried out by the Northern Territory Department of Primary Industry, Fisheries and Mines with the Supervising Scientist having a technical, advisory and supervisory role in relation to Environmental Requirements issued by the Australian Government Industry Minister under the *Atomic Energy Act 1953*. The Supervising Scientist is not a regulator but provides assurance to the Australian Government and the community that the people and environment of the Alligator Rivers Region (including Kakadu National Park) are protected from any adverse effects of uranium mining and that best practice in on-site management is encouraged.

Because uranium mining is also regulated at the state or territory level, the current national regulatory situation has an administrative complexity which, if no action is taken to address it, has the capacity, in my view, of becoming an impediment to the possible expansion of the industry. At the moment, regulatory arrangements differ both between and within jurisdictions. Different state arrangements apply to the different mines in South Australia and different arrangements apply at the Australian Government level between Ranger in the Northern Territory and the South Australia mines. The potential exists for more complexity to be introduced at the Australian Government level through EPBC Act regulation of new or expanded mines. (The existing South Australian mines were assessed prior to commencement of the EPBC Act.)

I consider that, at the Australian Government level, it would be desirable to extend the role of the Supervising Scientist to all uranium mining in Australia. Under such a model, the Supervising Scientist would be written into the EPBC Act assessment and approvals process and would have an ongoing role in assessing the mining operation against the Environmental Requirements in a similar manner to his current role in the Alligator Rivers Region.

Such an arrangement would provide for a single on-ground, day-to-day regulator (the state or territory authority) together with intergovernmental consultation requirements and a continuing role for the Supervising Scientist in meeting Australian Government requirements through assessing performance against the Environmental Requirements. The Environmental Requirements themselves would differ from mine to mine as they would be developed to deal appropriately with the site specific

environmental issues raised by the assessment process for each new or expanded project.

Another key policy responsibility for this Department relevant to your Review is climate change.

Uranium is Australia's second largest energy export in terms of energy content and plays a role in decreasing the greenhouse intensity of other nations to the extent that it displaces higher-emission energy sources.

Recent analysis by Robert Socolow of Princeton University demonstrates the key role that nuclear power could play as one of a menu of technologies used to achieve the significant global emissions reductions that will be required to deal with climate change.

Other countries recognise that nuclear power may be a cost-effective pathway to a lower greenhouse signature, and its potential to help to mitigate global greenhouse gas emissions as part of a portfolio of low emissions technologies is becoming more widely recognised.

The conversion of uranium to electricity in power stations involves very low levels of greenhouse gas emissions. Some greenhouse gas emissions occur throughout the full fuel cycle particularly in ore processing and fuel preparation and these need to be taken into account in assessing the contribution to global greenhouse gas reduction.

Some uncertainty surrounds the extent to which nuclear energy could contribute to global greenhouse gas abatement over the long term. This will be affected by the size of the available resource and the extent to which advanced technologies such as breeder reactors can be effectively harnessed in the future to increase the efficiency of the use of this resource. We note that the emerging interest in nuclear energy is driving increased uranium exploration and discovery.

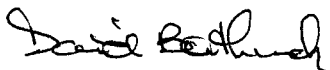
With respect for the potential of nuclear energy in Australia, I suggest that assessment of this should include analysis of generation costs throughout all stages of the fuel cycle including decommissioning and waste disposal as well as an assessment of the implications of investment uncertainty and risk sharing between government and the private sector. The international literature indicates that, the cost of nuclear power can vary widely and depends on a range of factors including project siting, reactor technology, and regulatory regimes.

It would also be useful for the analysis to consider specifically whether nuclear power, in common with many other low-emission technologies, would be cost competitive in the Australian electricity market under current market conditions.

The analysis could also consider the greenhouse implications of up-stream processing such as relatively energy-intensive uranium enrichment and fuel fabrication in Australia. Under current international arrangements the emissions from these relatively energy-intensive activities would be attributed to the producing country. However, the emissions savings from nuclear power's displacement of more greenhouse-intensive generation would accrue to the country that generates the nuclear power.

I would be pleased to discuss any of these matters in more detail with you or other members of your Taskforce if you wished to seek more information or clarification.

Yours sincerely



David Borthwick
Secretary

18 September 2006