

## Uranium industry regulation and impacts on Aboriginal communities

*Given this natural endowment Australia should be the world leader in the production of uranium. However Australia's current regulatory environment dissuades investment in uranium exploration, favours the entrenched position of three existing producers and leaves limited opportunity for the development of other mines by new entrants. This environment is clearly anti-competitive and has sterilised the majority of Australia's uranium deposits. It is in the National Interest that this environment is changed.<sup>1</sup>*

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<sup>1</sup> Jindalee Resources Ltd, *Submission no. 31*, p. 1.

## **Key messages —**

- State and territory governments are largely responsible for the day-to-day regulation of uranium mining and associated activities. However, oversight of uranium mining is shared between the Australian Government and the governments of the Northern Territory and South Australia.
- Industry is generally supportive of state and territory governments regulating uranium mining, and is confident that the current regulatory regime is sufficiently stringent. Industry is concerned, however, with some of the complexity involved and perceived reporting regulations that exceed those of other minerals industries.
- Criticisms of perceived failings of the current regulatory regime by those opposed to uranium mining generally relate to the adequacy of environmental protection from the impacts of uranium mining, the performance of the Office of the Supervising Scientist (OSS) in the Alligator Rivers Region (ARR) of the Northern Territory, and alleged conflicts of interest within state and territory regulatory agencies.
- The efficacy of the regulatory regime for uranium mining in the ARR is confirmed by the fact that there has been no harm to the Kakadu National Park as a result of the mining operations at Ranger.
- Uranium mining regulation in the ARR has, however, evolved into what appears to be an unduly complex regime. The regulatory regime in the NT should be reviewed with a view to consolidation and simplification.
- Environmental requirements attached to the Ranger mining lease set clear regulations as to what must be achieved for the mine's eventual rehabilitation. This includes that the mine site needs to be rehabilitated to a standard that will allow its incorporation into the Kakadu National Park. Energy Resources of Australia (ERA), the owners of Ranger, are now making financial allowance to fund the eventual mine closure and rehabilitation. The environmental bond paid by the company and held by government currently stands at \$63 million.
- The number of incidents reported at Ranger is not indicative of poor performance but of a highly stringent reporting regime, which has resulted in the reporting of incidents that would be considered to be below the threshold level at other mining operations.

- **The Northern Land Council (NLC) stated that it was no more concerned about the environmental impacts of uranium mining than it was about any other mining that takes place. Indeed, the NLC expressed more concern about the impacts of mining to extract gold.**
- **The Committee notes that while ERA has announced that there will be no further development at Jabiluka without the formal support of the Traditional Owners, in 2000 the World Heritage Committee concluded that the currently approved proposal for the mine and mill at Jabiluka does *not* threaten the health of people or the biological and ecological systems of Kakadu National Park.**
- **Deficient regulation and poor mining practices in past decades have led to ongoing rehabilitation problems at former uranium mine sites in the ARR and elsewhere. Further funding should be provided to ensure that these sites are fully rehabilitated.**
- **While there are a number of impediments to increasing Aboriginal engagement in uranium mining, industry, governments and Indigenous communities themselves should seek to emulate the examples of mining operations, both in Australia and abroad, that have succeeded in achieving employment, business and training benefits for Indigenous communities.**

## **Introduction**

- 10.1 This chapter, which is divided into four sections, examines concerns about, and potential solutions to, perceived shortcomings of the current regulatory regime.
- 10.2 The chapter commences with a description of the current regulatory environment, focussing on the Australian Government's involvement. It examines the responsibilities of Australian Government agencies and outlines the legislative bases of their roles.
- 10.3 The second section details the industry's assessment of the current regulatory regime governing uranium mining in Australia. Industry's views of the adequacy of the current framework, along with their concerns about regulatory consistency and efficiency, are summarised.
- 10.4 The third section assesses criticisms of the regulatory environment, which broadly go to the perceived inadequacies of the regulations in providing sufficient protection from the alleged harmful impacts of uranium mining on the environment. This section also addresses suggestions in relation to the activities of regulatory authorities and arrangements.

- 10.5 Finally, this chapter examines consultation with Traditional Owners and the social impacts of uranium mining on Aboriginal communities. This section focuses particularly on: social impact monitoring; the processes for engaging and consulting with Aboriginal communities; opportunities for Aboriginal employment and training; and the *Aboriginal Land Rights Act*.

## Overview of current regulatory arrangements

- 10.6 Mining in Australia is largely conducted under state and territory legislation. In practice however, oversight of uranium mining is a shared responsibility between the Australian Government and the governments of the Northern Territory (for the Ranger and Jabiluka mines) and South Australia (for the Olympic Dam, Beverley and Honeymoon mines).
- 10.7 General Commonwealth power in uranium mining derives from the external affairs power under the Constitution (section 51 (xxix)). This constitutional power is manifested in an export control regime. Uranium is only mined in Australia for export and hence Commonwealth power is especially significant.
- 10.8 A second foundation of the Commonwealth's role is its special position in the Northern Territory (NT). Although self-government was granted to the Territory in 1978, the Commonwealth retained control and ownership of uranium. The Ranger mineral leases were granted under the *Atomic Energy Act 1953*, although the mineral leases for the subsequent Jabiluka uranium prospects were issued under NT mining legislation.
- 10.9 Whilst the Commonwealth retains strong powers through its export permit processes, without which uranium mines would have no commercial viability, day-to-day administration of the mines is regulated by the state and territory governments. The Commonwealth is involved in the initial environmental impact assessment process and in the granting of an export licence for the uranium. The regulation of uranium mining operations, including environmental matters, the health of workers and the safety of the mine operation, is principally the responsibility of the relevant state and territory governments.
- 10.10 Regulation of mines in the NT is the responsibility of the NT Department of Primary Industry, Fisheries and Mines (DPIFM), with the Commonwealth Office of the Supervising Scientist (OSS) having a monitoring, research and supervisory role over uranium mining activities in the Alligator Rivers Region (ARR).
- 10.11 In South Australia (SA), day-to-day management of uranium mining is the responsibility of the Department of Primary Industries and Resources

(PIRSA), with regulation of radiation safety aspects of mines being the responsibility of the Environment Protection Authority.

10.12 In addition to its special position in relation to uranium in the NT and environmental assessment and approval, the Australian Government also has responsibility for:

- ensuring the physical security of nuclear materials within Australia;
- approval of exports of radioactive materials, including uranium; and
- implementation of safeguards agreements and tracking of Australian Obligated Nuclear Material internationally.

These matters were addressed in previous chapters.

10.13 The Committee notes that a number of other reports and inquiries, at both state and federal level, have examined aspects of uranium industry regulation. These have included, among others:

- *Uranium Mining and Milling in Australia* – Senate Uranium Mining and Milling Select Committee;<sup>2</sup>
- *Jabiluka: The Undermining of Process – Inquiry into the Jabiluka Uranium Mine Project* – Senate Environment, Communications, Information Technology and the Arts References Committee;<sup>3</sup>
- *Regulating the Ranger, Jabiluka, Beverley and Honeymoon uranium mines* – Senate Environment, Communications, Information Technology and the Arts References Committee;<sup>4</sup>
- Independent Review of Reporting Procedures for the SA Uranium Mining Industry – Hedley Bachmann, for the SA Government;<sup>5</sup> and
- *Review of Environmental Impacts of the Acid In-situ Leach Uranium Mining Process* – Commonwealth Scientific and Industrial Research Organisation (CSIRO), for the SA Government.<sup>6</sup>

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2 Senate Uranium Mining and Milling Select Committee, *Uranium Mining and Milling in Australia*, Parliament of Australia, Canberra, 1997, viewed 17 August 2006, <[http://www.aph.gov.au/Senate/committee/uranium\\_ctte/report/contents.htm](http://www.aph.gov.au/Senate/committee/uranium_ctte/report/contents.htm)>

3 Senate Environment, Communications, Information Technology and the Arts References Committee (SECITARC), *Jabiluka: The Undermining of Process – Inquiry into the Jabiluka Uranium Mine Project*, Parliament of Australia, Canberra, 1999, viewed 17 August 2006, <[http://www.aph.gov.au/Senate/committee/ecita\\_ctte/completed\\_inquiries/1999-02/jabiluka/report/contents.htm](http://www.aph.gov.au/Senate/committee/ecita_ctte/completed_inquiries/1999-02/jabiluka/report/contents.htm)>.

4 SECITARC, *Regulating the Ranger, Jabiluka, Beverley and Honeymoon uranium mines*, Parliament of Australia, Canberra, 2003, viewed 17 August 2006, <[http://www.aph.gov.au/Senate/committee/ecita\\_ctte/completed\\_inquiries/2002-04/uranium/report/index.htm](http://www.aph.gov.au/Senate/committee/ecita_ctte/completed_inquiries/2002-04/uranium/report/index.htm)>.

5 H Bachmann, *Report of the Independent Review of Reporting Procedures for the SA Uranium Mining Industry*, 2002, viewed 18 August 2006, <<http://www.heathgateresources.com.au/contentmine.jsp?xcid=62>>.

The Committee also notes the work of the Uranium Industry Framework, which is currently developing a uranium industry action plan.

- 10.14 In view of the extensive treatment that uranium industry regulation has received to date, the Committee does not propose to present a detailed examination of regulatory issues here. The Committee's attention has been drawn specifically to the regulation of the environmental impacts of uranium mining and this chapter largely reflects that.
- 10.15 The following overview of the current regulatory environment draws on the Senate Environment, Communications, Information Technology and the Arts References Committee (SECITARC) report, *Regulating the Ranger, Jabiluka, Beverley and Honeymoon uranium mines*, and the Uranium Information Centre's (UIC's) paper, *Regulation of Australian Uranium Mining*.<sup>7</sup>

## Commonwealth statutes regulating uranium

- 10.16 The Commonwealth's involvement in the regulation of uranium derives from eight key statutes:
- *Atomic Energy Act 1953* – provides for the authorisation of uranium mining on any land in the Ranger Project Area in the NT. The Australian Atomic Energy Commission (AAEC) was set up by Section 8 of the Act, and its functions set out in Section 17. The AAEC was replaced in 1987 by the Australian Nuclear Science and Technology Organisation (ANSTO), established by the *Australian Nuclear Science and Technology Commission Act 1987*.
  - *Environment Protection and Biodiversity Conservation Act 1999* ('the EPBC Act') – the principal legislative scheme for the mining, use and disposal of uranium. The key purpose of the Act is to clarify the matter of Commonwealth environmental jurisdiction, based on six matters of national environmental significance, one of which is 'nuclear actions' (defined to include 'mining or milling uranium ore'). Where a nuclear action has, will have, or is likely to have, a significant impact on the environment, approval must be sought from the Australian Government Environment Minister. Before a project can proceed, the proposed action must undergo a Commonwealth environmental assessment and approval process, although these can be undertaken

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6 G Taylor et. al., *Review of Environmental Impacts of the Acid In-situ Leach Uranium Mining Process*, CSIRO, Melbourne, 2004, p. 1, viewed 12 July 2005, <[http://www.environment.sa.gov.au/epa/pdfs/isl\\_review.pdf](http://www.environment.sa.gov.au/epa/pdfs/isl_review.pdf)>

7 SECITARC, *Regulating the Ranger, Jabiluka, Beverley and Honeymoon uranium mines*, op. cit., pp. 1-20; UIC, *Regulation of Australian Uranium Mining*, UIC, Melbourne, 2006, viewed 17 August 2006, <<http://www.uic.com.au/mineregulation.htm>>.

jointly by the Commonwealth and the state or territory governments when required under both Commonwealth and state or territory law.

- *Nuclear Non-Proliferation (Safeguards) Act 1987* – has the objective of ensuring the physical security of nuclear materials within Australia. Underlying this legislation, possession of nuclear material requires a permit and approval from the Australian Safeguards and Non-Proliferation Office (ASNO).
- *Environment Protection (Alligator Rivers Region) Act 1978* (EPARR Act) – introduced by the Commonwealth following the report of the 1976 Ranger Uranium Environmental Inquiry (described in a following section), which highlighted the need for strong protection measures for the region’s environment in relation to uranium mining activities. The Act is concerned with the administrative arrangements for the Australian Government’s oversight of uranium mining operations in the ARR in the NT, which encompasses the Ranger and Jabiluka mine sites. The legislation established the OSS, which operates within the Department of the Environment and Heritage (DEH) and incorporates the Environmental Research Institute of the Supervising Scientist (ERISS). The OSS is responsible for the supervision, monitoring and audit of uranium mines in the ARR as well as research into the possible impact of uranium mining on the environment of the region.

In 1993–94, the Act was amended to provide for the establishment of the following consultative bodies:

- ⇒ ARR Advisory Committee (ARRAC), which facilitates communication between community, government and industry stakeholders on environmental issues associated with uranium mining in the ARR; and
- ⇒ ARR Technical Committee (ARRTC), which performs reviews of the research and monitoring programs relevant to uranium mines in the ARR.

A Mine Site Technical Committee (MSTC) was also established. The OSS was initially incorporated within the then Department of Environment, Sport and Territories. Following leaks of tailings water at the Ranger mine during the 1999–2000 wet season, the role of the Supervising Scientist Division (SSD) was expanded to focus on environmental monitoring, on the basis that the OSS should collect its own data rather than rely solely on data gathered by the mining operator, Energy Resources of Australia (ERA), and DPIFM.

- *Australian Radiation Protection and Nuclear Safety Act 1998* – regulates the transportation of uranium and its by-products. The object of the Act is to ‘[p]rotect the health and safety of people, and to protect the

environment, from the harmful effects of radiation' (Section 3). The Act also established the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), which is the statutory body responsible for the administration of the Act.

- *Aboriginal Land Rights (Northern Territory) Act 1976* – the Commonwealth gains additional jurisdiction in the NT through the operation of this Act. The Act establishes the Northern Land Council (NLC) as a statutory authority to represent the interests of Aboriginal Traditional Owners. Both Ranger and the proposed Jabiluka mine are located within the NLC's area of jurisdiction, and both are on land which is traditionally owned by the Mirrar-Gundjeihmi people. The Australian Government has recently proposed changes to the Act.
- *Customs (Prohibited Exports) Regulations 1958* under the *Customs Act 1901* – under regulation 11, an export licence is necessary for the export of radioactive material, including refined uranium, plutonium and thorium. Amendments to the regulations were made in August 2000 to strengthen Commonwealth control over uranium exports by enabling export permissions (or licences) for uranium to be granted subject to conditions. Under the regulations, the Australian Government Minister for Industry, Tourism and Resources is provided with a mechanism by which to place legally binding conditions, including mine-site environmental conditions, on the export of uranium.
- *Nuclear Safeguards (Producers of Uranium Ore Concentrates) Charge Act 1993* – establishes a Uranium Producers Charge, through which the Commonwealth recoups approximately 40 per cent of ASNO's annual costs. The fee is charged on each kilogram of production and in October 2003 was set at 6.0453 cents per kilogram of contained uranium, up to a maximum of \$500 000 for each producer.

10.17 In addition to the operation of these Acts, ARPANSA publishes codes of practice for uranium mining. These are detailed in the descriptions of the key Commonwealth regulatory agencies which follow.

## Commonwealth regulatory agencies

10.18 The Australian Government's involvement in the regulation of uranium mining and nuclear matters is conducted principally through three portfolios: Environment and Heritage; Industry, Tourism and Resources; and Foreign Affairs and Trade, notably through ASNO. In addition, the Health and Ageing portfolio, through ARPANSA, has specific roles. A summary of each authority's involvement in uranium regulation follows.



## Department of Industry, Tourism and Resources

- 10.19 The Department of Industry, Tourism and Resources (DITR) develops policy and administers legislation relating to Australia's resources and energy industries.<sup>8</sup> DITR also plays an important role in formulating the national response to climate change issues. The Resources area is responsible for providing policy and legislative advice and administrative support to the Government on the resources sector of the economy, which includes uranium.
- 10.20 The Uranium Industry section is located within the Resources Development Branch and Resources Division of DITR. The goal of the section is to encourage the sustainable development and growth of Australia's uranium mining industry. It focuses on ways to encourage and manage the development and operation of Australia's uranium industry by:
- reducing impediments to the development and operation of uranium projects;
  - granting export permits for items listed under Schedule 7 of the *Customs (Prohibited Exports) Regulations 1958* (the Regulations); and
  - seeking to ensure a more consistent and accountable regulatory regime for uranium mining that meets environmental objectives.<sup>9</sup>
- 10.21 The section works closely with agencies such as ASNO, the Department of Foreign Affairs and Trade and the Australian Customs Service to ensure procedures are followed in the exportation of uranium, thorium and other controlled ores listed under Schedule 7 of the Regulations.
- 10.22 DITR monitors and supports industry applications for environmental approval under the EPBC Act. As noted above, the Act legislates the need for environmental approval for new projects and/or extensions of existing projects that affect matters of national environmental significance. The Act requires that relevant Commonwealth Ministers are consulted when approval is sought for proposed projects within their area of responsibility. In addition, DITR is required under the Act to report annually on Australia's environmental performance and contribution to ecologically sustainable development.<sup>10</sup>

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8 See: Uranium Industry Section at DITR, *ITR Homepage*, Australian Government, Canberra, viewed 17 August 2006, <<http://www.industry.gov.au>>.

9 *ibid.*

10 *ibid.*

## Department of the Environment and Heritage

10.23 DEH advises the Commonwealth Government on policies and programs for the protection and conservation of the environment, including both natural and cultural heritage. It has four key responsibilities in relation to uranium mining:

... firstly, the assessment and approval of proposals for new uranium mines or the expansion of an existing uranium mine under the Environment Protection and Biodiversity Conservation Act 1999, known as the EPBC Act; secondly, the Supervising Scientist's monitoring, research and supervisory role in relation to uranium mining activities in the Alligator Rivers region of the Northern Territory; thirdly, the management of Commonwealth reserves by the Director of National Parks, including Kakadu National Park, which surrounds the Ranger and Jabiluka sites; and, fourthly, through the delivery of the Australian government's climate change strategy, a key interest in energy issues, including nuclear fuels.<sup>11</sup>

10.24 The Department administers environmental laws, and is responsible for Australia's participation in a number of international environmental agreements. DEH explained that the EPBC Act is 'the most fundamental reform of Commonwealth environmental laws since the first environmental statutes were enacted in the early 1970s,' allowing streamlined environmental assessment and approval processes.<sup>12</sup> Importantly, the Act also 'ensure[s] that all future uranium mines are subject to a stringent and comprehensive environmental assessment process.'<sup>13</sup>

10.25 With regard to the uranium mining industry in SA, DEH's role as an environmental regulator is demonstrated through the approvals process and in the Department's authority to set strict conditions governing the operating procedures of the mines. In the NT, the OSS supervises the management of the uranium mining industry and conduct research into the industry's impact on the ARR environment.

10.26 As described in the overview of relevant legislation in the preceding section, the SSD is responsible for environmental oversight of uranium mining activities in the ARR. The primary role of the SSD is to ensure, through research, assessment and the provision of technical advice, that the environment of the ARR is protected from the effects of uranium

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11 Mr David Borthwick (DEH), *Transcript of Evidence*, 10 October 2005, p. 2. See also: DEH, *Submission no. 55*, p. 5.

12 DEH, *ibid.*, p. 24.

13 *ibid.*

mining to the standard required by the Australian Government. The supervisory functions are carried out by the OSS, and the research functions of the SSD are performed by ERISS.

- 10.27 The world heritage values of the Kakadu and concerns of the Traditional Owners were said to demand a strict regulatory regime. The need for strict regulation also reflects that uranium is a radioactive element and hence measures must have a high degree of reliability for unusually long periods of time.<sup>14</sup>
- 10.28 DEH argued that this supervisory role is 'demonstrably effective' and that 'the regime is one of the most rigorous regimes currently in place for any mining operation anywhere in the world.'<sup>15</sup>

### Australian Safeguards and Non-Proliferation Office

- 10.29 The principal focus of ASNO is on international and domestic action against the proliferation of weapons of mass destruction (WMD) – nuclear, chemical and biological – and also radiological weapons. Thus, the Office's work relates directly to international and national security. In particular, ASNO works to strengthen the operation of treaty verification regimes and their supporting technical methods. In addition, it performs domestic regulatory functions, ensuring that Australia complies with relevant treaty commitments, and that the public is protected through appropriate security standards for WMD-related materials.<sup>16</sup>
- 10.30 ASNO's responsibilities cover nuclear materials – uranium, thorium and plutonium – not general radioactive materials as such. ASNO's legislation applies to all persons or organisations in Australian jurisdiction having relevant materials, items or technology. Principally this applies to ANSTO, as Australia's only nuclear operator, but also covers a diverse range of other entities including uranium mines and associated transport and storage operations, private sector laboratories, educational institutions, and patent attorneys. ASNO's activities are based on a number of constitutional heads of power, especially the external affairs power.
- 10.31 Among his principal functions, the Director General of ASNO (currently Mr John Carlson) is responsible for ensuring the effective operation of the *Nuclear Non-Proliferation (Safeguards) Act 1987*, the *Comprehensive Nuclear Test-Ban Treaty Act 1998* and fulfilment of Australia's obligations under the treaties these Acts implement.
- 10.32 ASNO's three key interests in the regulation of uranium mines are:

14 *ibid.*

15 *ibid.*, p. 25.

16 ASNO, *ASNO website*, Australian Government, Canberra, viewed 17 August 2006, <<http://www.asno.dfat.gov.au>>.

- ensuring that any uranium produced is properly accounted for;
  - ensuring the effective control of uranium, with access to uranium granted only to authorised persons, for authorised purposes; and
  - ensuring that exports of uranium comply with the terms of Australia's bilateral safeguards agreements.<sup>17</sup>
- 10.33 ASNO ensures that producers of uranium maintain accountancy records, including records of production, export licensing and shipping documentation. This contributes to ensuring that any uranium produced in Australia is properly accounted for.<sup>18</sup>
- 10.34 ASNO meets its obligation to effectively control uranium by requiring appropriate levels of physical protection at mine sites and storage areas, and by liaising with its counterparts in countries through which AONM will transit, alerting them to the need to protect such material in their jurisdiction.<sup>19</sup>
- 10.35 In addition to ensuring compliance with bilateral safeguards agreements, ASNO ensures that Australia's international obligations are met under the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), Australia's NPT safeguards agreement with the International Atomic Energy Agency (IAEA), and the *Convention on the Physical Protection of Nuclear Material 1979*.<sup>20</sup>

### Australian Radiation Protection and Nuclear Safety Agency

- 10.36 Established under the *Australian Radiation Protection and Nuclear Safety Act 1998* (ARPANS Act) described above, ARPANSA is responsible for protecting the safety and health of people and the environment from the harmful effects of radiation.<sup>21</sup>
- 10.37 ARPANSA's functions are to:
- promote the uniformity of radiation protection and nuclear safety policy and practices across the Commonwealth, states and territories;
  - provide advice to Government and the community on radiation protection, nuclear safety (reactors and visits by nuclear-powered warships) and related issues;
  - undertake research and provide services in relation to radiation protection, nuclear safety and medical exposures to radiation;

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17 The Hon Alexander Downer MP, Minister for Foreign Affairs, *Submission no. 33*, p. 8.

18 *ibid.*

19 *ibid.*

20 *ibid.*, p. 9.

21 ARPANSA, *Submission no. 32*, pp. 2-3.

- regulating radiation protection and nuclear safety aspects of all Commonwealth entities involved in radiation or nuclear activities and dealings;
  - accredit persons with technical expertise for the purposes of the ARPANS Act; and
  - monitor compliance with prohibitions related to the regulation of controlled material, controlled apparatus and controlled facilities.<sup>22</sup>
- 10.38 ARPANSA regulates a wide range of nuclear and radiation facilities and sources, including nuclear installations, waste facilities and radioactive materials. Among its other activities, ARPANSA reviewers assess applications for licences against international best practice in radiation protection and nuclear safety, undertake inspections and take any enforcement actions necessary to ensure compliance with the Act and Regulations. The CEO of ARPANSA (currently Dr John Loy) is required to report annually to the Minister for Health any breach of licence conditions by a licensee.
- 10.39 ARPANSA publishes the Radiation Protection Series to promote practices that protect human health and the environment from the possible harmful effects of radiation. The Series contains four categories of publication, two of which apply to uranium mining:
- Codes of Practice are prescriptive in style and may be referenced by regulations or conditions of licence. They contain practice-specific requirements that must be satisfied to ensure an acceptable level of safety in dealings involving exposure to radiation.<sup>23</sup> Requirements are expressed in 'must' statements.
  - Recommendations provide guidance on fundamental principles for radiation protection. They are written in an explanatory and non-regulatory style and describe the basic concepts and objectives of best international practice.
- 10.40 The Codes and Recommendations relevant to uranium mining include:
- Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing (2005);
  - Code of Practice for the Safe Transport of Radioactive Substances (1982); and
  - Recommendations for Limiting Exposure to Ionising Radiation (1995).

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22 *ibid.*

23 ARPANSA, *Exhibit no. 67, Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing.*

- 10.41 Compliance with the Codes of Practice, or aspects of them, is a requirement of authorisations issued by the NT Government or licences by the SA Government for the mining of uranium.

## State government responsibilities

- 10.42 The day-to-day regulation of uranium mining activities is a responsibility of state and territory governments. State regulations encompass matters including health, safety and the environment, although, as described above, the Australian Government is also involved in the environmental regulation of uranium mining.<sup>24</sup>
- 10.43 The EPBC Act provides the Minister for the Environment and Heritage with a vehicle to directly issue approval conditions to a proponent of any new or expanded uranium mine. The proposed expansion of Olympic Dam in SA is the first uranium mine proposal to be considered under the EPBC Act.<sup>25</sup>
- 10.44 Under an agreement between the NT and Australian Governments on the regulation of mining in the Territory, before the NT Minister for Mines and Energy grants or varies an authorisation under Territory legislation the matter must be referred to the Supervising Scientist for comment. The Territory Minister must not act until that comment is received. The Supervising Scientist may refer the matter to the Australian Government Minister for the Environment and Heritage. If the matter is referred, the Territory Minister must act in accordance with the advice of the Australian Government Minister.
- 10.45 DEH explained that the Supervising Scientist's monitoring, research and supervisory role is separate and independent from the regulatory responsibilities of the Australian Government's industry portfolio and the Territory Government's mines and energy portfolio.<sup>26</sup>
- 10.46 It was explained that the Environment Minister has a 'considerable range of discretion' as to the conditions he or she can impose on a mining operation, and that these conditions will vary depending on the assessment of the environmental impacts of each specific proposal.<sup>27</sup>
- 10.47 DEH emphasised the importance of having an independent supervisor for health and environmental aspects of uranium mining, as occurs with the

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24 For an overview of state-level arrangements, see: UIC, *loc. cit.*; and for arrangements in the NT in particular, see: ERA, *Submission no. 46*, pp. 4-9.

25 Mr Gerard Early (DEH), *Transcript of Evidence*, 10 October 2005, p. 3.

26 *ibid.*

27 *ibid.*, p. 4.

Supervising Scientist in the ARR and ARPANSA, separated from the industry promotional functions of Government:

We think it is absolutely fundamentally important to have those regulatory functions at the Commonwealth level separated from the policy promotional functions of public health and that those processes be transparent and open ...<sup>28</sup>

- 10.48 DEH explained that under the EPBC Act, the Minister for the Environment's role will be limited to the approval and assessment process and that the Supervising Scientist's role only applies to the ARR. The monitoring, research and supervisory role of the Supervising Scientist in relation to uranium mining only applies to the ARR in the NT. DEH mooted whether consideration could be given to expanding this role in order to ensure 'independent, arms-length regulatory oversight'.<sup>29</sup> The Committee returns to this matter following a discussion of the OSS.
- 10.49 As to the adequacy and appropriateness of federal regulation, the Supervising Scientist remarked that the ARR is particularly sensitive because of the overlay of three issues of concern to the public – uranium itself, the iconic nature of the Kakadu National Park, and mining taking place on Aboriginal land. In summary, the Supervising Scientist maintained that 'those three issues come together to make it a highly significant area' and that the regulation is therefore not excessive.<sup>30</sup>
- 10.50 Mining in the NT is conducted under two principal pieces of Territory legislation – the *Mining Act*, which regulates the issue of exploration licenses and leases, and the *Mining Management Act* which governs the operational aspects of mining in the Territory. Under the *Mining Management Act*, which came into force in 2002, companies are required to operate under a mining management plan, which covers both occupational health and safety and environmental aspects of mining operations. Mining management plans are approved and reviewed annually.<sup>31</sup>
- 10.51 NT Government officials noted that section 175 of the *Mining Act* requires the Territory Minister to consult with and have regard to the advice of the Commonwealth Minister in relation to most matters under the Act, including the granting of mineral leases. However, the NT Minister 'could grant or reasonably refuse to grant an exploration license.'<sup>32</sup> The new *Mining Management Act* contains similar provisions and requires the

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28 *ibid.*, p. 14

29 *ibid.*, pp. 4, 7, 14.

30 Dr Arthur Johnston (Supervising Scientist, DEH), *Transcript of Evidence*, 10 October 2005, p. 4.

31 Mr Richard Jackson (NT Government), *Transcript of Evidence*, 24 October 2005, p. 58.

32 *ibid.*, p. 59.

Territory Minister to consult with the Federal Minister in relation to issuing an authorisation under the Act.

- 10.52 In relation to the decision of the Australian Government to assume responsibility for the uranium mine approval process, Territory Government officials argued that at the operational level changes are unlikely: 'the Northern Territory government is keen to continue to look after the day-to-day regulation of uranium mining and that is something that is supported by the Commonwealth.'<sup>33</sup> Territory officials also stated that they 'work well with the Commonwealth in relation to Ranger ... if there were another [mine] in the equation we would work just as well.'<sup>34</sup>

## Industry's assessment of existing regulation

- 10.53 Uranium producers were supportive of state and territory governments regulating uranium mining and associated activities, given their experience and history in these areas.<sup>35</sup> Compass Resources observed that state governments regulate mineral developments competently: 'They are closest to the action, and that tends to result in more streamlined yet issue-focused approval processes.'<sup>36</sup>
- 10.54 Some junior companies and other companies not presently mining uranium in Australia acknowledged their limited experience with the full scope of the regulatory framework but were positive about those aspects that they had so far encountered. Deep Yellow, for example, was very positive about its experience with the regulatory framework in the NT. Indeed, the regulatory environment was credited with being:
- ... a strong educational tool to companies regarding their obligations to the various stakeholders in the process including community, government, environment and traditional landowners.<sup>37</sup>
- 10.55 Compass Resources noted that, notwithstanding the Federal intervention in the NT which it welcomed, ideally, the Territory Government would continue to regulate mining.<sup>38</sup> Similarly, in terms of the day-to-day
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33 *ibid.*

34 *ibid.*

35 UIC, *Submission no. 12*, p. 16.

36 Dr Malcolm Humphreys (Compass Resources NL), *Transcript of Evidence*, 16 September 2005, p. 62. See also: Mr Mark Chalmers (Heathgate Resources Pty Ltd), *Transcript of Evidence*, 19 August 2005, p. 96.

37 Deep Yellow Ltd, *Submission no. 16*, p. 2. See also: Cameco Corporation, *Submission no. 43*, p. 1.

38 Dr Malcolm Humphreys, *loc. cit.*



regulation of the uranium industry in the NT, the Northern Territory Minerals Council (NTMC):

... continues to support the Mines Division of the Department of Primary Industries, Fisheries and Mines, as the prime regulator on a day-to-day basis, based on agreed arrangements between the Northern Territory and Commonwealth governments.<sup>39</sup>

- 10.56 The SA government was applauded for its progress with dovetailing the regulatory requirements of the state and federal systems. Paladin Resources observed that:

South Australia has developed a regulatory regime which seems to have married the requirements of the State and the Commonwealth across the wide range of issues affecting uranium mining.<sup>40</sup>

- 10.57 Further, Heathgate Resources praised SA regulatory bodies for being:

... extremely supportive in both the obtaining of approvals to operate and the ongoing regulation of an operating mine, while at the same time ensuring operations are conducted according to all legislative requirements.<sup>41</sup>

## Adequacy of the current regulatory regime

- 10.58 Some submitters argued there is a need for stringent regulations governing uranium exploration, mining and exports, particularly:

... given the magnitude of environmental and human health damage that can be caused by radiation emanating from their waste materials or leaks from their processes ...<sup>42</sup>

- 10.59 So long as Australia remains a dominant supplier of uranium, it will be incumbent on it 'morally and politically, to play a very strong leadership role in regulating ... the industry,' and to make a significant contribution to developing international 'best practice' for the industry.<sup>43</sup>

- 10.60 Indeed, the Association of Mining and Exploration Companies (AMEC) and the UIC commented on progress Australia had already made in this respect. AMEC stated that 'Australia's radiation safety regulations today

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39 *ibid.*

40 Paladin Resources Ltd, *Submission no. 47*, p. 7.

41 Heathgate Resources Pty Ltd, *Submission no. 49*, p. 3. See also: Mr Cedric Horn (Southern Gold Ltd), *Transcript of Evidence*, 19 August 2005, p. 18.

42 APChem, *Submission no. 38*, p. 7.

43 CFMEU Mining and Energy, *Submission no. 26*, p. 4; Compass Resources NL, *Submission no. 6*, p. 2.

are among the most comprehensive and stringent in the world.<sup>44</sup> The UIC further observed that:

The stringency of Australia's approach, ensuring Australian involvement in regulating for the full life of its nuclear material through ASNO, is internationally recognised for the contribution it has made to ensuring such material is not diverted for military purposes.<sup>45</sup>

10.61 Several submitters were confident that the current regulatory regime was sufficiently stringent in ensuring the responsible export of uranium, and adequately protecting the physical environment and citizens' safety.<sup>46</sup> For instance, Heathgate Resources 'support[s] the current high standards of regulatory controls' in Australia.<sup>47</sup> Compass Resources also felt that the current processes for approving and monitoring mining activities have generally performed well.<sup>48</sup>

10.62 Similarly, the Australian Nuclear Association (ANA) stated that environmental and export safeguards for uranium are adequate.<sup>49</sup> It noted that efforts to ensure Australia's uranium is only used for peaceful purposes had resulted in a stringently regulated industry:

The ANA believes that the uranium mining industry in Australia is adequately controlled by the Commonwealth and state governments with respect to environmental protection and safeguards for the peaceful use of the exported product.<sup>50</sup>

10.63 Nova Energy argued that regulation of uranium mining – from occupational health and safety to export controls and safeguards – is effective:

We firmly believe that the export licensing regime, the occupational health and safety regime from a mining perspective for the industry through to the export regime around uranium in this country is one of the best in the world and should give us all the confidence that we will only export uranium to where it is used for power generation, and that is well understood and can be

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44 AMEC, *Submission no. 20*, p. 4

45 UIC, *op. cit.*, p. 11.

46 See for example: ANA, *Submission no. 19*, p. 4; *ibid.*, p. 16; ERA, *op. cit.*, pp. 5–6; Paladin Resources Ltd, *op. cit.*, p. 2; Nova Energy Ltd, *Submission no. 50*, p. 9.

47 Mr Mark Chalmers, *loc. cit.*

48 Compass Resources NL, *op. cit.*, p. 3.

49 ANA, *loc. cit.*

50 *ibid.*, pp. 3–4.

tracked and monitored. The regimes exist to do that very effectively in this country.<sup>51</sup>

- 10.64 Mr Harry Kenyon-Slaney, Chief Executive of ERA, argued that the regulatory regime that governs ERA and its Ranger mine is very comprehensive:

We currently have five independent bodies who monitor our every move. We have the Alligator Rivers Region Technical Committee, we have the Alligator Rivers Region Advisory Committee, we have a mine site technical committee, we have the Australian Safeguards and Non-Proliferation Office, we have the Northern Territory Government and we have the Supervising Scientist, whose office was set up specially to monitor the environmental impacts that uranium mining has on the surrounding ecosystem. There is an extremely low threshold as to reporting and, as you have probably seen, an enormous amount of information is communicated widely and reported upon whenever anything happens. A spill of a litre of oil in the pit is communicated to the authorities. Personally, I feel that the regulatory environment is comprehensive. Certainly on my watch it is respected and accepted. I am sure that changes for the better could be made and that all the parties continually strive to make those. I certainly do not feel that there is in any way an environment where information is not communicated to stakeholders.<sup>52</sup>

## Industry's criticisms of existing regulations

- 10.65 The industry's central concerns about existing regulations related to: cross-jurisdictional differences, incongruities and the complexity of the regulatory environment in the NT; and perceived excessive regulation of the uranium industry.
- 10.66 Although ERA 'accept[ed] that the regulatory regime needs to be strict and comprehensive', it acknowledged that the regulations in the NT were complex:

... history has delivered a complex mix of issues – the Aboriginal Land Rights Act, the Local Government Act and the establishment of the Kakadu National Park – and that requires a complex mix of different laws and regulations.<sup>53</sup>

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51 Mr Richard Pearce (Nova Energy Ltd), *Transcript of Evidence*, 23 September 2005, p. 77.

52 Mr Harry Kenyon-Slaney (ERA), *Transcript of Evidence*, 24 October 2005, p. 51. See also: ERA, *Submission no. 46*, p. 5; ERA, *Exhibit no. 76, op. cit.*, pp. 6–7.

53 *ibid.*

- 10.67 Noting the regulatory differences between Ranger and Jabiluka, ERA acknowledged that the existing regulatory environment in the NT was not ideal:

If we were at the very beginning of developing a uranium mining industry in this country we would probably develop a slightly different regulatory framework. But we are where we are and we have a number of differences between the regulatory environment for Ranger and for Jabiluka.<sup>54</sup>

- 10.68 ERA submitted that complying with the existing regulations in the NT is costly. Oversight by the OSS and three independent bodies in the ARR is unique and costs the company \$10 million in compliance expenses each year.<sup>55</sup>

- 10.69 The uranium industry claimed that it is subject to regulations that are far more stringent than those imposed on other industries:

At the moment it would seem that the uranium industry is under much greater scrutiny than other industries, arguably with at least the same, if not greater, occupational health implications ... That does not seem to me to be terribly reasonable.<sup>56</sup>

- 10.70 Existing producers were of the view that the current regime is 'onerous', especially when compared with regulation of other industries, and called for these perceived inequities to be reconsidered. The industry's view is that:

The requirement for high standards of safety and environmental performance by the uranium mining industry is appropriate, but no more so than for any other industrial activity involving people as workers or neighbours, or having a potential impact on the environment. The current regulatory regime is onerous for the industry, particularly in comparison with industries such as agriculture, forestry, tourism and manufacturing.<sup>57</sup>

- 10.71 Another submitter suggested that the regulatory environment is 'politically oriented and over zealous. It panders to the green movement and is not based on serious science or logic.'<sup>58</sup>

- 10.72 The NTMC was also critical of existing regulations preventing the development of the uranium industry:

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54 *ibid.*, p. 48.

55 ERA, *Exhibit no. 76, What is it really like to operate a large uranium mine in Australia?*, p. 6.

56 Mr Ian Hore-Lacy (UIC), *Transcript of Evidence*, 19 August 2005, p. 91.

57 UIC, *loc. cit.*

58 Name withheld, *Submission no. 25*, p. 1.

... there is no justification for restricting the development of further uranium mines in the Territory ... both the NT and Commonwealth governments need to work together to encourage the search for new deposits and provide the relevant support.<sup>59</sup>

## Regulatory reform

10.73 Industry supported improving the regulatory system in order to:

... ensure the highest possible standards of occupational and public safety and environmental protection, while avoiding duplication and unnecessary administrative burdens and costs.<sup>60</sup>

10.74 What makes uranium unique among minerals is the requirement for Commonwealth review and companies want this to be kept as simple, efficient and timely as possible.<sup>61</sup>

10.75 The uranium industry did not argue that regulation should be softened, but expressed the hope that:

... as a result of this inquiry, policy at all levels of government will enable uranium mining in Australia to further develop under legislative and regulatory requirements that ensure the highest possible standards of occupational health, public safety, environmental protection and countering weapons proliferation.<sup>62</sup>

10.76 The MCA advocated adoption of a 'minimum effective regulation' approach to structuring the regulatory environment, which it describes as involving:

... minimum, efficient ... and only necessary government regulatory intervention ... consistent with meeting, *inter alia*, occupational and public safety and environmental requirements.<sup>63</sup>

10.77 Paladin Resources stated that:

The only "special treatment" needed is the maintenance of an effective safeguards regime and continuation of best practice standards for occupational health and safety.<sup>64</sup>

10.78 The Committee regrets that, other than one detailed set of regulatory reforms proposed by a group critical of uranium mining, no reform proposals were made by existing producers or juniors. Nonetheless, a

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59 Ms Kezia Purick (NTMC), *Transcript of Evidence*, 24 October 2005, p. 33.

60 *op. cit.*, pp. 4, 16.

61 Compass Resources NL, *loc. cit.*

62 Mr Ian Hore-Lacy, *op. cit.*, p. 89.

63 MCA, *Submission no. 36*, p. 12.

64 Paladin Resources Ltd, *op. cit.*, p. 3.

range of impediments to the industry's development were identified and these are discussed in the following chapter. The following section addresses criticisms of existing regulations, focussing on the alleged environmental impacts of the industry in Australia.

## Criticisms of current regulation

- 10.79 Some 47 submitters were opposed to uranium mining outright and called for the industry's closure. For example, one submitter's view was that: 'To continue mining shows contempt for the human race'.<sup>65</sup>
- 10.80 Those opposed to uranium mining altogether generally considered that the regulatory arrangements governing the industry were inadequate.<sup>66</sup> A number of submitters provided detailed criticisms of the regulatory arrangements, much of which focussed on the following issues:
- the alleged inadequacy of environmental regulations;
  - the role and performance of the Office of the Supervising Scientist; and
  - conflicts of interest within agencies required to both promote and regulate uranium mining.

## Environmental regulation

- 10.81 Much of the criticism of the regulatory regime focussed on the alleged paucity of environmental protection provisions. For example, Friends of the Earth (FOE) viewed the environmental impact assessment process as being 'inadequate'.<sup>67</sup>
- 10.82 Witnesses noted that the Senate Environment Committee found that the industry is characterised by 'under performance and non-compliance' and concluded that the regulations were 'complex, confusing and inadequate'.<sup>68</sup>
- 10.83 The Australian Conservation Foundation (ACF) also called for the 2003 Senate Environment Committee report to be responded to and its recommendations implemented.<sup>69</sup> Areva, however, argued that some of the Senate Committee's recommendations are 'at odds with an objective

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65 Ms Rita Warleigh, *Submission no. 83*, p. 2. See also: Ms Stephanie Riddell, *Submission no. 80*, p. 1.

66 See for example: FOE, *Submission no. 52*, p. 9; Mr Justin Tutty, *Submission no. 41*, p. 7; GAC, *Submission no. 44*, p. 26.

67 FOE, *op. cit.*, p. 10.

68 Mr Dave Sweeney (ACF), *Transcript of Evidence*, 19 August 2005, p. 79.

69 ACF, *Submission no. 48*, p. 25. See also: Mr Justin Tutty, *op. cit.*, p. 9; GAC, *op. cit.*, p. 5.

and balanced assessment of the industry'.<sup>70</sup> For example, Areva cited the Senate Committee's suggestion that in-situ leach mining is an experimental technology as an indication that its conclusions were not necessarily realistic.<sup>71</sup>

10.84 The Gundjehmi Aboriginal Corporation's (GAC's) concerns about regulation included:

- inconsistency between regulations that govern Ranger and Jabiluka, despite both being on Mirrar land;
- lack of accountability – for example, use of non-statutory agreements to govern most regulation and monitoring;
- outdated provisions;
- inadequacy of the *Aboriginal Land Rights Act* (ALRA), which allegedly prevents the Traditional Owners being directly involved in the management of their land; and
- lack of monitoring of social and cultural impacts (addressed separately below).<sup>72</sup>

10.85 The GAC recommended the overhaul and consolidation of regulations, rather than piecemeal reform.<sup>73</sup> It made six specific recommendations in relation to the regulatory environment, which are summarised below, along with the DEH's response to each:

- Firstly, the GAC recommended that the responsibilities of the Australian Government, in relation to uranium mining in the ARR, be clarified.<sup>74</sup> Such clarification would include affirming the: extent of the Australian Government's ownership of uranium; accountability for uranium mining, including environmental and social impact monitoring; and the environmental impact of uranium mining in the ARR.

The DEH responded that the 'roles and responsibilities of the Australian Government are already set out under various pieces of legislation' as well as the *Agreement between the Commonwealth of Australia and the Northern Territory of Australia in relation to principles to be applied in the regulation of Uranium Mining in the Northern Territory of*

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70 Areva Group, *Submission no. 49*, p. 16.

71 *ibid.*

72 GAC, *op. cit.*, pp. 26–35.

73 *ibid.*, pp. 26–34.

74 *ibid.*, pp. 33–4.

*Australia (dated 17 November 2000) ('17 November 2000 Agreement')*.<sup>75</sup>  
The DEH considered these arrangements to be appropriate.<sup>76</sup>

- The GAC also advocated clarifying the responsibilities of the NT Government in relation to uranium mining in the ARR, including its responsibility for granting mining leases and authorising and regulating uranium mining.<sup>77</sup>

The DEH advised that the responsibilities of the NT Government are already clearly set out in the NT *Mining Management Act 2001* and through the 17 November 2000 Agreement.<sup>78</sup>

- The GAC recommended that appropriate Environmental Requirements, and associated enforcement mechanisms, be set out in relation to uranium mining in the ARR.<sup>79</sup>

The DEH considered that the current Environmental Requirements are appropriate, and noted that the NT Government, in consultation with the Supervising Scientist, is currently developing a related enforcement policy.<sup>80</sup>

- The GAC saw a need to set out the responsibilities of the Supervising Scientist and ERISS, particularly in relation to their relationship with the NT Supervising Authority.<sup>81</sup>

The DEH explained that the roles and responsibilities of these entities are already described in sections 5 and 24 of the EPARR Act.<sup>82</sup>

Furthermore, the cooperative relationship between OSS and ERISS on the one hand, and the NT Government on the other, is detailed in the *Revised Working Arrangements for Co-ordinating the Regulation of the Environmental Aspects of Uranium Mining in the Northern Territory (May 2005) ('Working Arrangements')* and the 17 November 2000 Agreement.<sup>83</sup>

- The GAC also recommended either clearly setting out the functions of ARRAC, ARRTC and the MSTCs, or creating a single entity that would consolidate the functions of these bodies.<sup>84</sup>

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75 DEH, *Submission no. 55.2*, p. 2.

76 *ibid.*

77 GAC, *op. cit.*, p. 34.

78 DEH, *Submission no. 55.2*, *loc. cit.*

79 GAC, *loc. cit.*

80 DEH, *Submission no. 55.2*, *loc. cit.*

81 GAC, *loc. cit.*

82 DEH, *Submission no. 55.2*, p. 3.

83 DEH, *Submission no. 55.2*, *loc. cit.*

84 *loc. cit.*



In relation to the functions of the ARRAC, ARRTC and MSTCs being clearly set out, the DEH stated that the functions of ARRAC and ARRTC are described in section 11 and 16 of the EPARR Act and the functions of the MSTCs are detailed in the Working Arrangements.<sup>85</sup> As to the merging of the ARRAC, ARRTC and MSTCs, DEH was of the view that these organisations ‘perform three very different roles, and no advantage would [be] gained by merging them.’<sup>86</sup>

- The GAC’s sixth recommendation was to reform the ‘system of Authorisation for uranium mining in the Alligator Rivers Region.’<sup>87</sup>

Whilst the DEH stated that ‘the GAC has not provided enough information here on the nature of possible reforms for the Authorisations process for any comment to be provided’, it noted that Authorisations for uranium mining in the ARR are ‘frequently reviewed and amended as required’ through changes in operational practices.<sup>88</sup>

10.86 The GAC suggested that its first five recommendations could be satisfied by consolidating the provisions of a number of pieces of legislation and regulation, including the 17 November 2000 Agreement, the Working Arrangements, Part III of the Commonwealth *Atomic Energy Act 1953* and the EPARR Act.<sup>89</sup>

10.87 The ACF also made recommendations for regulatory reform, including a review of the regulatory regime in the NT to reduce complexity.<sup>90</sup> Each of these issues is addressed, in turn, in the following sections.

10.88 Arguing that the current regulations were in fact adequate, ERA reported that complying with regulatory requirements presented a significant cost to the company:

The combined direct cost of all of our environmental, safety and health management activities, which includes payments to the Commonwealth Department of Environment and Heritage that are used to fund the Office of the Supervising Scientist, is well in excess of \$10 million a year.<sup>91</sup>

10.89 The NTMC argued that companies advocate excellence in environmental performance and aim to achieve ISO 14001 certification – an

85 DEH, *Submission no. 55.2, loc. cit.*

86 DEH, *Submission no. 55.2, loc. cit.*

87 *loc. cit.*

88 DEH, *Submission no. 55.2, loc. cit.*

89 *loc. cit.*

90 ACF, *op. cit.*, p. 29.

91 ERA, *Exhibit no. 76, op. cit.*, p. 6.

internationally recognised standard for environmental management systems – which ERA has already attained.<sup>92</sup> In addition, all major operators in the NT are signatories to the Minerals Industry ‘*Enduring Value*’ Code for Sustainable Development.<sup>93</sup>

10.90 In relation to environmental regulation, witnesses commented on a range of specific issues, which are detailed below:

- management of waste at mine sites;
- reporting requirements;
- mine closure and rehabilitation;
- operations in the Northern Territory; and
- operations in South Australia.

## Waste

10.91 In relation to waste generated by uranium mining, witnesses were specifically concerned at tailings management and the management of waste water. An overriding concern of submitters was that uranium mining leaves behind tailings which stay radioactive for long time periods. Earth movements may damage tailings dams and cause radium to escape. Leaking waste water may also contaminate groundwater.<sup>94</sup>

10.92 Another concern involved the possibility of tailings moving into groundwater or being dispersed by air as radon.<sup>95</sup> GAC’s fundamental concern was that during uranium mining and after rehabilitation there could be increased concentrations of radionuclides released into the environment.<sup>96</sup>

10.93 GAC made a number of allegations about the management of tailings at Ranger, including:

- deficiencies in the monitoring regime at Ranger and Jabiluka;
- culture of downplaying incidents by regulatory agencies;
- exclusion of Traditional Owners from decision making roles in relation to waste management; and
- lack of transparency in waste management and concern about its environmental impacts.<sup>97</sup>

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92 NTMC, *Submission no. 51*, p. 7; *ibid.*, p. 7.

93 NTMC, *ibid.*

94 Ms Janet Marsh, *Submission no. 2*, p. 1.

95 Mr Daniel Taylor, *Submission no. 85*, p. 10.

96 GAC, *op. cit.*, p. 36–37.

97 *ibid.*, p. 43.

DEH expressed its confidence in the current system of tailings management, provided the Committee with a detailed response to each of the GAC's concerns and explained how tailings are currently managed.<sup>98</sup>

- 10.94 The NT Government advised that Ranger pumps approximately 2.3 million tonnes of tailings per annum at a density of 50 per cent solids to pit number one. This equates to a total volume of about 3.2 million cubic metres of tailings per annum. The Territory Government noted that uranium mine tailings are *not* classified as radioactive waste.
- 10.95 The GAC raised four concerns about water management at Ranger:
- reduction in the statutory monitoring points in the lease area;
  - need for extensive monitoring;
  - extent of leaks and the need for modelling; and
  - criticism of OSS for relying on company data.<sup>99</sup>
- 10.96 Again, DEH expressed its confidence in the current system of waste water management, and responded to each of the GAC's stated concerns.<sup>100</sup>
- 10.97 The GAC proposed that statutory responsibility for monitoring environmental impacts be transferred from the NLC to the GAC, but this suggestion was rejected by the NLC.<sup>101</sup>

### Incidents and spillages at uranium mines

- 10.98 A number of submitters expressed concern at the 'large numbers of incidents' occurring at uranium mines, the alleged reluctance of regulators to prosecute companies and the inadequacy of penalties.<sup>102</sup>
- 10.99 FOE alleged that the present regulatory structure fails to enforce environmental protection by:
- operators and regulators not being required to improve practices;
  - operators failing to report incidents promptly to regulators and to the public; and
  - inadequate monitoring practices.<sup>103</sup>

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98 DEH, *Submission no. 55.2*, pp. 4–6.

99 GAC, *op. cit.*, p. 46.

100 DEH, *Submission no. 55.2*, p. 16.

101 NLC, *Submission no. 78*, p. 10.

102 APChem, *loc. cit.*; FOE, *op. cit.*, p. 10.

103 FOE, *ibid.*, pp. 9–10.

- 10.100 FOE claimed that ERA has failed to report 'severe uranium contamination events' in a timely fashion:

[In its annual report] ERA ... stated that the company operates in accordance with applicable environmental legislation. However the directors' report fails to mention a number of severe uranium contamination events that occurred last year at ERA's Ranger mine. One notorious incident in March 2004 resulted in 28 workers falling ill after drinking water contaminated with uranium levels 400 times greater than the maximum Australian safety standard.<sup>104</sup>

- 10.101 GAC echoed this view, claiming that regulatory agencies operate within a culture of downplaying incidents. It cited an example of the OSS stating in its 2000-01 Annual Report that no reportable incidents had occurred during the reporting period, while the GAC stated that:

A tailings spill such as that on 9 September 2000 is clearly of risk to mill workers, and would be of legitimate concern to the Mirarr and the general public. The Gundjeihmi Aboriginal Corporation is concerned that a poor management culture within ERA and regulating authorities that down play reportable incidents is a recipe for disaster.<sup>105</sup>

- 10.102 These concerns, however, were countered by the DEH, which responded that the number of reported incidents was not a cause for concern and merely reflected the stringency of the reporting regime.<sup>106</sup> It contended that this has resulted in the reporting of incidents that would be considered to be below the threshold level at other mining operations.<sup>107</sup>

### Mine closure and rehabilitation

- 10.103 A number of submitters were concerned about failures to rehabilitate former uranium mines in the South ARR and at Nabarlek in the East ARR.<sup>108</sup> Environmental groups cited the environmental degradation following the closure of uranium mines in the NT which were not properly rehabilitated:

There have been former uranium mining operations, from Rum Jungle through South Alligator, across the East Alligator River,

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104 *ibid.*, p. 9.

105 GAC, *op. cit.*, pp. 35-6.

106 DEH, *Submission no. 55.1*, p. 4.

107 *ibid.*

108 ACF, *op. cit.*, pp. 27, 28; G. M. Mudd, *Exhibit no. 14, Uranium mill tailings wastes in Australia: past, present and future management*, p. 6; G. M. Mudd, *Exhibit no. 15, Remediation of uranium mill tailings wastes in Australia*, pp. 4-5; G. M. Mudd, *Exhibit no. 21, A compendium of radon data for the rehabilitation of Australian uranium projects*, p. 9.

into the Nabarlek mine. Now there are continuing and unresolved rehabilitation issues at all of those sites.<sup>109</sup>

10.104 In particular, the Environment Centre of the Northern Territory (ECNT) argued that rehabilitation projects in the 1980s have merely reduced the rate of pollution.<sup>110</sup> It alleged that Rum Jungle continues to pollute the environment:

... thousands of tonnes of potentially toxic pollutants such as copper, zinc, manganese, lead sulphate, uranium and radium were, and continue to be, washed into the Finnis River and adjacent wetland environments.<sup>111</sup>

10.105 Mr John Schindler was also concerned that Rum Jungle remains contaminated, and questioned who is responsible for paying for the rehabilitation process in the event that the mine owner folds, which was the case with the Rum Jungle mine.<sup>112</sup>

10.106 Information available on the ARPANSA website was critical of the tailings management processes adopted at Rum Jungle, particularly during the early stages of mining, and noted that minimal rehabilitation was carried out on the site upon closure of the mine.<sup>113</sup> They argued that within a few years of closure:

... the Rum Jungle mine had become one of Australia's most notorious pollution problems, due to oxidation of sulphides by bacteria and the consequent release of acid and metals into the East Finnis River.<sup>114</sup>

10.107 In relation to Nabarlek, ACF pointed to the physical plant that remains on the site, a lack of revegetation, high levels of radiation in some areas of the site, and an alleged failure of 'regulatory culture' and communication between agencies.<sup>115</sup>

10.108 Compass Resources observed that the earlier generation of uranium mines, such as Rum Jungle, were not subject to the approval processes that apply today and 'the regulations were very flimsy.'<sup>116</sup> Compass Resources argued that there are now 'substantially higher standards to meet' for

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109 Mr Dave Sweeney, *op. cit.*, p. 78.

110 Mr Peter Robertson (ECNT), *Transcript of Evidence*, 24 October 2005, pp. 1-2.

111 *ibid.*

112 Mr John Schindler, *Submission no. 10*, p. 2.

113 Crouch et al, *Rehabilitation of Uranium Mine Waste Sites in Australia*, p. 5, viewed 24 July 2006, <<http://www.arpansa.gov.au/pubs/radwaste/frenchpaper.pdf>>.

114 *ibid.*

115 Mr Dave Sweeney, *op. cit.*, p. 86.

116 Dr Malcolm Humphreys, *op. cit.*, p. 66.

product control, occupational health and safety, and for reclamation of the proposed mine site.<sup>117</sup>

10.109 The Supervising Scientist corroborated this view, arguing that:

I would say that the regulations that apply today to uranium mining in Australia, as distinct from what used to occur, are such that the environment can be and has been protected to a very high degree. If one applied the same stringency to other forms of mining you could achieve the same result, but the other forms of mining do not receive the same kind of attention that uranium mining does.<sup>118</sup>

10.110 Notwithstanding problems at some mines, the rehabilitation of mines at Mary Kathleen and Nabarlek has been successful:

The first major rehabilitation project of a uranium mine in Australia, Mary Kathleen in Queensland, won an award for engineering excellence upon completion in 1985, and the 1990s rehabilitation of Nabarlek is even better.<sup>119</sup>

10.111 The Director of Parks Australia noted that there are some 20 former mine sites in the upper South ARR dating from the 1950s and 1960s. Some of these sites were partially rehabilitated in 1990–91, before they became part of the Kakadu National Park. The sites are required to be properly rehabilitated by 2015 and planning work to achieve this commenced some five years ago. In partnership with the Traditional Owners, the NLC, the Supervising Scientist and the NT Government, Parks Australia reported that a plan has now been developed to remediate the simplest sites. This plan has been agreed to by the NLC and Traditional Owners.

10.112 Parks Australia reported that planning is now ‘well under way’ for dealing with the more complicated sites, but it was noted that at present National Parks does not have sufficient resources to properly rehabilitate all these sites: ‘The scale of what is necessary to be done properly is beyond our current capacity.’<sup>120</sup>

10.113 In June 2006, the Australian Government announced that it will move to incorporate 29 mining leases into Kakadu National Park, allocating \$7.3 million over the next four years for this work which will involve ‘the

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117 *ibid.*

118 Dr Arthur Johnston, *op. cit.*, p. 7.

119 AMEC, *op. cit.*, p. 6.

120 Mr Peter Cochrane (DEH), *Transcript of Evidence*, 10 October 2005, p. 10.

effective rehabilitation of abandoned uranium sites in Kakadu's South Alligator River valley'.<sup>121</sup>

- 10.114 Concerns about the rehabilitation of decommissioned mines were accompanied by requests by environmental groups for further resources for Parks Australia for its rehabilitation work on former sites.<sup>122</sup>
- 10.115 In terms of the Ranger operation, ERA observed that the company is obliged to submit an annual amended Plan of Rehabilitation, underwritten by a bond (which is now in excess of \$60 million), setting out how the company would rehabilitate the site in case of sudden closure. The company states that the net present cost of final closure at the end of the operation's life is expected to be \$176 million.<sup>123</sup>
- 10.116 The ACF alleged that both the Commonwealth and NT regulatory authorities have failed to give adequate regard and effect to minimising impacts on the Ranger Project Area despite this being clearly articulated in the Environmental Requirements. This failure has allegedly seen a consistent pattern of approvals being granted that increase ERA's contaminant footprint and complicate future rehabilitation and final landform options.<sup>124</sup>
- 10.117 In response, the NT Government confirmed that under the Territory's *Mining Management Act* and the mining management plans, companies are required to implement appropriate and approved mine closure processes.<sup>125</sup> As a part of this process, companies are required to provide an environmental bond held by the Government which, in the case of ERA's operations at Ranger noted above, is currently \$63 million.<sup>126</sup> Furthermore, the Commonwealth's Environmental Requirements stipulate that the Ranger Project Area is to be rehabilitated such that it could be incorporated into the National Park.<sup>127</sup>
- 10.118 In relation to the rehabilitation of the mine site, Mr Harry Kenyon-Slaney explained the Environmental Requirements that ERA must meet:

We have set out in our environmental requirements, which are attached to our lease, very clear regulations as to what we have to

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121 The Hon Greg Hunt MP, Parliamentary Secretary to the Minister for the Environment and Heritage, *Media Release: Old mining leases to become part of Kakadu*, Australian Government, Canberra, 5 June 2006, viewed 17 August 2006, <<http://www.deh.gov.au/minister/ps/2006/psmr05jun206.html>>.

122 ACF, *op. cit.*, p. 29.

123 ERA, *Exhibit no. 76*, , *op. cit.*, p. 7.

124 ACF, *op. cit.*, pp. 21-2.

125 Mr Richard Jackson, *op. cit.*, p. 61.

126 *ibid.*

127 DEH, *Submission no. 55*, p. 16.

achieve. We are required to return the ground, the five square kilometres, to a standard which will allow its incorporation into the Kakadu National Park. That is a very considerable obligation and it is one that we have already started work on. We are required to remove all infrastructure. We are required to move the power plant. We are required to remove everything to do with the mine site and put the waste rock back into the pit, fill them up and rehabilitate all of the water. We have recently constructed a \$30 million water treatment plant to start the process of lowering water kept on site. Progressively, over the next five or six years before formal closure, we will move ahead with a range of technical projects to ensure that closure proceeds in an exemplary manner. I think we will be in the vanguard of scientific best practicable technology by the time we close Ranger, and I have every confidence that we will do it in an exemplary manner. But I think the issues are going to be more socioeconomic than technical.<sup>128</sup>

- 10.119 ERA is aware that the future of the community in the vicinity of Ranger will depend in large measure on the company's ability to prepare for closure. Mr Kenyon-Slaney stated that the company has commenced a comprehensive closure management process and will be providing for it financially. ERA expressed that it is determined to 'close Ranger in an exemplary manner', but argued that the biggest challenge is likely to be the socio-economic implications of the mine's closure:

I think the most significant issues and probably the most vexing of issues are going to be in the socioeconomic area, where the reliance upon Ranger in the community is very significant. Upwards of 70 per cent of the town of Jabiru is in one way or another connected with, or dependent upon, Ranger's operation. We are working very actively with all the stakeholders, the traditional owners, the Northern Territory government, and Parks to try to ensure that those issues are addressed and that we can withdraw from the area in as sustainable a manner as possible.<sup>129</sup>

- 10.120 Although ERA is obligated under the Environmental Requirements attached to its mining license to remove the infrastructure at Ranger, including the power station which also supports Jabiru, the company will discuss with stakeholders what is to happen to the infrastructure:

... to try to ensure that we leave a sustainable community. We will be working over the next seven years or so to find ways of doing

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128 Mr Harry Kenyon-Slaney, *op. cit.*, p. 52.

129 *ibid.*, p. 51



that, whether it is through employment, development for small businesses or opportunities to leave infrastructure that is of use to people in the future.<sup>130</sup>

- 10.121 In preparing for closure, ERA explained that in the past few years a Jabiru Regional Sustainability Project was initiated in partnership with the Traditional Owners, the NT Government and Parks Australia which had as its objective to understand what the impact is going to be on the community from the closure of the mine.<sup>131</sup>
- 10.122 The Committee concludes that the regulations governing uranium mine closure and rehabilitation are clearly now much improved over past requirements and practice. Recognising the importance of successfully rehabilitating decommissioned uranium mines, and taking into account the risks posed by poorly rehabilitated former mines, the Committee supports calls for increased funding to rehabilitate former uranium mines.
- 10.123 The Committee applauds ERA's determination to eventually close Ranger in a way that leaves behind a sustainable community.

## Recommendation 5

**The Committee recommends that the Australian Government provide adequate funding to ensure the rehabilitation of former uranium mine sites, and for towns and similar facilities, rehabilitation to meet the expectations of the local community.**

### Operations in the Northern Territory

- 10.124 The ECNT argued that the regulation of uranium mining in the NT operates 'through a confused tangle of legislation, ministerial agreements and bureaucratic processes.'<sup>132</sup> It was alleged that the 'regulatory mess' has 'marginalised the local Aboriginal people and contributed to the long-running mismanagement of the [Ranger] mine.'<sup>133</sup>

### Impacts of mining on the Kakadu National Park

- 10.125 A number of submitters claimed that the existing monitoring and reporting regime in the ARR is inadequate.<sup>134</sup> The ACF alleged that the regulatory frameworks are failing to protect the environment in Kakadu,

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130 *ibid.*, p. 55.

131 *ibid.*, p. 56.

132 Mr Peter Robertson, *op. cit.*, p. 2.

133 *ibid.*

134 ACF, *op. cit.*, pp. 18–21; Mr Justin Tutty, *op. cit.*, p. 5; FOE, *loc. cit.*

leading to 'unacceptable and unnecessary operational and procedural failures.'<sup>135</sup>

10.126 The ECNT alleged that the Australian Government has failed to act on a previous commitment to support a recommendation of the World Heritage Bureau to incorporate the proposed Koongarra mine area into Kakadu.<sup>136</sup>

10.127 Notwithstanding the concerns expressed by the GAC and environmental groups, the NLC stated that it was no more concerned about the environmental impacts of uranium mining than it was about any other mining that takes place. Indeed, the NLC expressed more concern about the impacts of mining to extract gold.<sup>137</sup>

10.128 The Director of Parks Australia, Mr Peter Cochrane, stated that uranium mining poses a low risk for the Park:

In terms of the risk issues that we deal with in managing the park and protecting its values, I would have to say that Ranger uranium mine and its impact on the landscape are very low down on that risk profile. There are a range of issues which are much higher priorities for us. It is not something that impacts on us greatly. I have every confidence that the Supervising Scientist and his staff prosecute their job with the utmost efficiency and effectiveness. Therefore, the mine, in terms of park management, does not have a major impact.<sup>138</sup>

10.129 It was noted that the major issue would be the rehabilitation effort following the closure of the mine, but that:

Kakadu is well known around the world for having probably the best managed mining operation in a World Heritage area, one which has a minimal impact on the area.<sup>139</sup>

10.130 The Supervising Scientist noted that his office had fully assessed the possible environmental impacts from the management of tailings were the Jabiluka mine to proceed in a report for the World Heritage Committee. It was found that the requirement that tailings be placed underground would generate 'no impact in the very, very long term on the environment'.<sup>140</sup> Thus, contrary to assertions by ACF and Dr Gavin Mudd, the OSS has assessed that long-term storage of tailings underground at

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135 ACF, *ibid.*, p. 21. See also: Mr Justin Tutty, *ibid.*, p. 7.

136 Mr Peter Robertson, *op. cit.*, p. 3.

137 Mr Norman Fry (NLC), *Transcript of Evidence*, 24 October 2005, p. 21.

138 Mr Peter Cochrane, *op. cit.*, p. 8.

139 *ibid.*

140 Dr Arthur Johnston, *op. cit.*, p. 12.

Jabiluka will not harm the wetlands of Kakadu. Moreover, in 2000, the World Heritage Committee concluded that:

... the currently approved proposal for the mine and mill at Jabiluka does not threaten the health of people or the biological and ecological systems of Kakadu National Park.<sup>141</sup>

10.131 For its part, ERA noted that the Supervising Scientist's reports have 'continually stated that ERA's operations have never adversely affected the ecosystems of the Park.'<sup>142</sup>

#### Incidents at Ranger

10.132 ACF expressed concern about the environmental impacts and safety of the operations at Ranger:

We have a current operation system at Ranger, where there are significant environmental and significant social impacts from that large-scale industrial activity ... We have a situation where last year the Ranger uranium mine workers showered in and drank water containing 400 times the Australian safety standard of uranium. This year there are continuing health and safety challenges and prosecutions in court in Darwin. There is growing radioactive contamination in the footprint of the current mine.<sup>143</sup>

10.133 Similarly, the ECNT drew the Committee's attention to the incident in which workers were exposed to contaminated water and alleged that, by not responding to the Senate inquiry into Ranger the Commonwealth is 'showing that it is not interested in protecting the environment, workers or the community in relation to uranium mining in the Northern Territory.'<sup>144</sup>

10.134 The ECNT alleged that mining at Ranger has caused elevated levels of toxic contaminants downstream of the mine and is also producing a contaminated groundwater plume arising from a supposedly leaking tailings dam.<sup>145</sup>

10.135 The Supervising Scientist noted that over the life of the Ranger mine there have been some 120 occasions on which formal reporting of an incident was required. However, until 2004 when two serious incidents occurred, there had only been one incident over the past 25 years in which people were affected by a very small radiation dose and one other in which a number of birds died on a pond at the mine. The Supervising Scientist

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141 Cited in DEH, *Submission no. 55.1*, p 7.

142 Mr Harry Kenyon-Slaney, *op. cit.*, p. 47.

143 Mr Dave Sweeney, *op. cit.*, p. 78.

144 Mr Peter Robertson, *op. cit.*, pp. 2-3.

145 *ibid.*, p. 2.

'assessed that all the other 120-odd incidents as being of negligible impact on the environment.'<sup>146</sup>

10.136 In relation to the two incidents that occurred at Ranger in 2004, the Supervising Scientist again concluded that although the incidents were 'very serious in that they did threaten the health of both people and the environment', it is expected that there 'will be no long-term health hazard for the workers involved and the environment was protected to a very high degree during the entire incidents.'<sup>147</sup>

10.137 In relation to an incident involving a leakage of tailings water in 2000, DEH argued that the ACF were incorrect in their assertion that 2 million litres had left the mine site. The actual figure was only 85 000 litres and the Supervising Scientist had subsequently concluded that 'the leakage of tailings water had no adverse ecological impact on Kakadu National Park.'<sup>148</sup>

10.138 Mr Kenyon-Slaney stated that the incidents that occurred at Ranger in 2003 and 2004, which related to the contamination of the potable water system and pieces of equipment leaving the mine site, were unacceptable. While it was argued that there were no health impacts, the incidents breached the company's own internal standards and procedures. The Supervising Scientist investigated and reported on the incidents and these reports were followed by an audit launched by the Australian Government. Mr Kenyon-Slaney explained that ERA complied with the requirements of all three audits and has put in place:

... a whole series of new procedures and practices which strengthened our compliance with our water systems in the plant and the radiation clearance procedures. Those have been signed off and given a ringing endorsement by ARPANSA.<sup>149</sup>

10.139 In sum, ERA argued that it had acknowledged recent failures, taken actions deemed satisfactory to regulators and expressed a desire to improve performance.<sup>150</sup> The Minister for Industry, Tourism and Resources' view was that ERA had made considerable progress towards meeting conditions arising out of two Supervising Scientist reports: the company had complied with all conditions but one, and had made

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146 Dr Arthur Johnston, *op. cit.*, p. 6

147 *ibid.*

148 DEH, *Submission no. 55.1*, p. 3.

149 Mr Harry Kenyon-Slaney, *op. cit.*, p. 53.

150 See for example: ERA, *Social and Environmental Report*, ERA, Darwin, 2005, viewed 10 July 2006, <[http://www.energyres.com.au/corporate/ERA\\_SE\\_Rep05ART.pdf](http://www.energyres.com.au/corporate/ERA_SE_Rep05ART.pdf)>.

substantial progress towards complying with the final condition relating to a workplace safety standard.<sup>151</sup>

- 10.140 As to the robustness of regulatory oversight and the two incidents at Ranger, the NT Government pointed out that the Territory's *Mining Management Act* places a duty of care on companies to conduct themselves in a certain way. In addition to mechanisms such as the MSTCs, an environmental audit is performed by the Government once a year to ensure that management systems are in place. In relation to the incident in which contaminated equipment left the mine site, the NT Government stated that these incidents were identified and reported, as required, by ERA:

We do not have anybody on the gate to check whether or not equipment is leaving the site with mud on the tyres. ERA is supposed to do that. They know they were supposed to do that. They fell down on that occasion and they brought that to the attention of government. From that point of view, I suggest that the system is working ... absolutely. If they did not bring it to our attention, then we probably would not have known about it, but we work within a regulatory environment where people will bring that to our attention.<sup>152</sup>

- 10.141 As to the number of incidents that have been reported, the Supervising Scientist concluded that this reflects the stringency of the reporting regime rather than reflecting adversely on the company's performance:

In absolute environmental protection terms, the record of the company has been very good. It is my view that the reason why we have so many incidents reported is that it is more a measure of the stringency of the reporting regime that is imposed on the company by the regulations than it is a reflection on the company's performance.<sup>153</sup>

- 10.142 DEH concurred, responding that the number of reported incidents at Ranger is indicative of the rigorous reporting regime, which has resulted in the reporting of incidents that would be considered to be *below* the threshold level at other mining operations.<sup>154</sup> Moreover:

Monitoring and research by the Supervising Scientist since 1978 has concluded that there has been no harm to the environment in

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151 Supervising Scientist, *Annual Report 2004–05*, Department of the Environment and Heritage, Australian Government, Canberra, 2005, pp. 34–5.

152 Mr Richard Jackson, *op. cit.*, p. 65.

153 Dr Arthur Johnston, *op. cit.*, p. 6.

154 DEH, *Submission no. 55.1*, p. 4.

Kakadu as a result of mining operations at Ranger, confirming the efficacy of the regulatory regime.<sup>155</sup>

## Operations in South Australia

### Expansion of Olympic Dam

10.143 The ACF and other submitters argued that there are four 'significant and unresolved issues' associated with the proposed expansion of Olympic Dam: the long-term management of radioactive mine tailings; potential for the degradation of the Great Artesian Basin (GAB), if additional water supplies were to be sourced from the GAB; the significant power demand for the expanded mine; and the provisions of the Indenture Act under which the mine operates, which are alleged to provide the mine operator with 'unacceptable legal privileges'.<sup>156</sup> For instance, the FOE claimed that the *Roxby Downs Indenture Ratification Act* overrides the *SA Aboriginal Heritage Act*.<sup>157</sup>

10.144 A number of submitters were concerned about possible increases in tailings at Olympic Dam if the mine is expanded.<sup>158</sup> For instance, Dr Gavin Mudd noted that Olympic Dam is:

... already Australia's largest single radioactive waste dump, currently about 73 million tonnes and growing by some 9 million tonnes per year. This radioactive waste dump, the tailings left from milling and smelting, has leaked profusely in the past. If the full ore resource is ever mined at Olympic Dam ... the tailings dump could reach some 4,000 million tonnes ...<sup>159</sup>

10.145 Similarly, ACF claimed that the increased tailings from the expansion of operations at Olympic Dam will:

... massively increase the scale of the current problem without providing any credible answer to tailings containment.<sup>160</sup>

10.146 The proposed expansion was also criticised for its increased power and water requirements from the GAB.<sup>161</sup> ACF claimed that:

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155 *ibid.*

156 Mr David Noonan (ACF), *Transcript of Evidence*, 19 August 2005, p. 78.

157 FOE, *op. cit.*, p. 15.

158 G. M. Mudd, *Exhibit no. 13, Mound springs of the Great Artesian Basin in South Australia: a case study from Olympic Dam*, p. 474; ACF, *op. cit.*, pp. 8-9; FOE, *op. cit.*, p. 10.

159 Dr Gavin Mudd, *Submission no. 27*, p. 8. See also: G. M. Mudd, *Exhibit no. 14, loc. cit.*

160 ACF, *op. cit.*, p. 7.

161 Dr Gavin Mudd, *Submission no. 27*, p. 8; ACF, *op. cit.*, p. 7.

Mining demands on water supply threaten the Great Artesian Basin and the unique Mound Spring ecosystems dependent on natural groundwater flows for their survival.<sup>162</sup>

- 10.147 Dr Gavin Mudd asserted that the average ore grade at Olympic Dam will decline over time, leading to higher energy requirements for extraction and more radioactive waste created per tonne of U<sub>3</sub>O<sub>8</sub> produced.<sup>163</sup> ACF was also opposed to the expansion of Olympic Dam on the basis that the operation's energy requirements had yet to be resolved, and that the additional power requirements would impose burdens on the State's electricity grid.<sup>164</sup>
- 10.148 The ACF also asserted that the owners of Olympic Dam operate the mine 'under a set of privileges available to no other company operating in SA' and that 'the State Government should repeal these unacceptable legal privileges'.<sup>165</sup>
- 10.149 BHP Billiton contested this view, stating that Olympic Dam has and continues to be subject to a range of environmental management systems and requirements. These include:
- registration and accreditation under the National Standards Association 14000 series;
  - three-year environmental management programs under the Indenture Agreement with the SA Government;
  - annual environmental management reports to both the SA and Australian Governments;
  - six-monthly environmental management meetings with both the state and federal governments; and
  - quarterly environmental management meetings on-site with the SA Government.<sup>166</sup>
- 10.150 In relation to the extraction of water from the GAB, BHP Billiton argued that the company already recycles and desalinates water, both for its mining processes and for consumption at Roxby Downs. Moreover, the company has spent several million dollars in support of the State Government's program of capping pastoral bores and argued that, in combination, these efforts save the same amount of water that Olympic Dam uses. Dr Roger Higgins, Vice President and Chief Operating Officer of BHP Billiton's Base metals Australia, argued that:

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162 ACF, *ibid.*, pp. 7, 8. See also: Dr Gavin Mudd, *ibid.*

163 Dr Gavin Mudd, *ibid.*, p. 4.

164 ACF, *op. cit.*, p. 9.

165 *ibid.*, pp. 7, 8.

166 BHP Billiton Ltd, *Exhibit no. 78, Presentation by Dr Roger Higgins*, p. 10.

Collectively, those programs have resulted in reduced water being extracted from the GAB of about twice what we use. We consider that our contribution to that is about equal to what we use. So, while we take 32 megalitres a day out of the Great Artesian Basin, by working with the pastoralists helping to cap bores, to put covered piping in rather than open drains and generally to avoid losses, we believe that we are about in balance in our total effort in relation to the GAB. That is, the water extracted is roughly equivalent to the water saved by a more judicious use of water on the pastoral properties. It has been a good program.<sup>167</sup>

- 10.151 The expanded mine will require 130 megalitres of water a day, up from 30 megalitres currently, and BHP Billiton is examining three possible sources of supply: further use of the GAB; other aquifers in the region that are not connected to the GAB; and a desalination plant. If the company were to opt for the desalination plant, it expressed the hope that communities in the region could also benefit from the facility.<sup>168</sup>
- 10.152 DEH noted that the potential environmental impact of any expansion of Olympic Dam will be formally assessed during the approval process. DEH expected that such matters 'will be subject to a very thorough examination through the EIS process.'<sup>169</sup>

#### Beverley and Honeymoon deposits

- 10.153 A number of submitters were concerned about allegedly 'severe groundwater pollution caused by acid ISL mining' at Beverley and Honeymoon.<sup>170</sup> Dr Gavin Mudd insisted that the ISL mining technique contaminates groundwater, and alleged that no scientific evidence to the contrary has yet been produced.<sup>171</sup> Specific criticisms were made of: the use of acid in the leachate at Beverley; re-injection of waste liquids into the aquifer; and the potential for excursions of contaminated groundwater into other aquifers.<sup>172</sup>
- 10.154 Dr Mudd argued that there is no scientific evidence of claims that the waste liquid re-injected into the aquifer at Beverley will naturally

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167 Dr Roger Higgins (BHP Billiton Ltd), *Transcript of Evidence*, 2 November 2005, pp. 10–11.

168 *ibid.*, p. 11.

169 Mr Gerard Early, *op. cit.*, p. 21.

170 Dr Gavin Mudd, *Submission no. 27*, p. 8; Mr John Schindler, *Submission no. 10*, p. 1;

171 Dr Gavin Mudd, *ibid.*. See also: G. M. Mudd, *Exhibit no. 16, Critical review of acid in situ leach uranium mining: 1. USA and Australia*, pp. 401–2; G. M. Mudd, *Exhibit no. 17, Critical review of acid in situ leach uranium mining: 2. Soviet Block and Asia*, pp. 414–5; G. M. Mudd, *Exhibit no. 19, Environmental hydrogeology of in situ leach uranium mining in Australia*, pp. 56–7; G. M. Mudd, *Exhibit no. 20, Uranium mill tailings in the Pine Creek Geosyncline, northern Australia: past, present and future hydrogeological impacts*, p. 839.

172 FOE, *op. cit.*, p. 8; Mr John Schindler, *op. cit.*, p. 1.



attenuate – that is, over a period of time the composition of the waste liquid will naturally return to its precontaminated state. It was also argued that Heathgate Resources, the mine’s owners, have yet to release any research refuting his published criticisms of acid ISL mining.<sup>173</sup> However, Dr Mudd conceded that: ‘There is an extremely remote possibility that Beverley could affect the Great Artesian Basin’.<sup>174</sup>

- 10.155 In response to claims that acid ISL mining of uranium and disposal of wastes will contaminate groundwaters, in 2003 the SA Government requested that the State’s Environment Protection Authority conduct an independent review of the environmental impacts of the ISL mining process. CSIRO Land and Water was commissioned to conduct the review, which was completed in August 2004. The CSIRO review methodology consisted of visits to the Beverley and Honeymoon operations, a study of company and government documents, a literature review (the bibliography of the CSIRO report lists several of Dr Mudd’s publications), consultation with the community, and consideration of written submissions.<sup>175</sup>
- 10.156 The CSIRO’s overall conclusion was that ISL mining has considerably less environmental impact than other conventional mining techniques. As to the use of acid rather than alkaline leaching and disposal of liquid wastes by re-injection into the aquifer, the report concluded that these processes should be allowed to continue, subject to monitoring showing that there are no excursions of leach solution or waste liquids into other aquifers. The report stated that ISL mining and associated waste disposal is more environmentally responsible and cost effective than any suggested alternative techniques. Furthermore, CSIRO concluded that the Beverley operation has initiated and implemented world best practice methods.<sup>176</sup>
- 10.157 In reaching these conclusions, the CSIRO noted that the pre-mining groundwater at Beverley was highly saline and contained relatively high concentrations of radionuclides. In its untreated form, the groundwater was unsuitable for human consumption and generally unsuitable for stock use. The groundwater has no apparent beneficial use other than for the mining industry. Further, the study found that re-injection of waste is preferable to surface disposal. CSIRO concluded that although it has not yet been proven, it is widely believed and accepted that natural attenuation will result in the contaminated water chemistry returning to

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173 Dr Gavin Mudd, *Submission no. 27*, p. 8. See also: G. M. Mudd, *Exhibit no. 16, loc. cit.*; G. M. Mudd, *Exhibit no. 17, loc. cit.*; G. M. Mudd, *Exhibit no. 19, loc. cit.*; G. M. Mudd, *loc. cit.*

174 Dr Gavin Mudd, *Transcript of Evidence*, 19 August 2005, p. 46.

175 G Taylor et. al., *loc. cit.*

176 *ibid.*, pp. iii, 47.

pre-mining conditions within a timeframe of over several years to decades.<sup>177</sup> Finally, CSIRO considered that there is 'no potential for mining-affected water from the Beverley project to enter the GAB.'<sup>178</sup>

- 10.158 However, Dr Mudd claimed that the CSIRO report provided 'no data to justify their claims that there would be no long-term impacts on groundwater.'<sup>179</sup> Dr Mudd also criticised the CSIRO report because it was 'not based on good science'.<sup>180</sup>
- 10.159 Heathgate Resources rejected the criticism made of the appropriateness of the ISL mining method used at its Beverley operation and defended the CSIRO study.<sup>181</sup>

## The Supervising Scientist

10.160 The ACF made a number of criticisms specifically concerned with the OSS and DITR.<sup>182</sup> Each concern raised is followed by a response from DEH in turn:

- The ACF was critical of the alleged reduction of a Commonwealth 'on-the-ground' presence in Kakadu.<sup>183</sup>

Whilst the DEH confirmed that ERISS staff had relocated from Jabiru to Darwin in 2002, it argued that the OSS's on-ground presence had increased since that time.<sup>184</sup> The OSS now has 'a full chemical, radiological and biological monitoring program and all of the staff conducting this program reside at Jabiru', and this was not the case prior to 2001.<sup>185</sup> Furthermore, since 2002, the OSS 'has had a person located in Jabiru who is in a position to respond quickly to incidents at the [Ranger] mine.'<sup>186</sup>

- The ACF was also critical of what is perceived as 'the repeated unwillingness or inability of the OSS to uphold the integrity of the Environmental Requirements by using the full suite of options, including legal action'.<sup>187</sup>

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177 *ibid.*, p. 44.

178 *ibid.*, p. 23. See also: Mr Mark Chalmers, *op. cit.*, pp. 98–99.

179 Dr Gavin Mudd, *Transcript of Evidence, op. cit.*, p. 47.

180 *ibid.*, p. 48.

181 Mr Mark Chalmers, *loc. cit.*

182 ACF, *op. cit.*, pp. 21–3.

183 *ibid.*, p. 22.

184 DEH, *Submission no. 55.1*, p. 4.

185 *ibid.*

186 *ibid.*

187 ACF, *op. cit.*, p. 22.

The DEH refuted this claim, stating that OSS programs are directed at ensuring the adherence to Environmental Requirements.<sup>188</sup> The supervisory program ensures their implementation, and the monitoring program ensures compliance with Environmental Requirements.<sup>189</sup> In relation to the suggestion that the OSS pursue legal action, the DEH noted that 'the Supervising Scientist has only an advisory role' and that decisions relating to taking legal action are for the NT regulator or the Australian Government Minister for Industry, Tourism and Resources.<sup>190</sup>

- The ACF was concerned about the degree of the alleged regulatory capture and the organisational independence of the OSS, which it claimed was dramatically evidenced by the movement of the former Assistant Secretary to a senior management position at ERA during the 2003 contamination investigation.<sup>191</sup>

The DEH rejected criticisms of the OSS's independence and refuted claims that the OSS had been captured by industry.<sup>192</sup> It suggested that the Supervising Scientist's independence had been demonstrated by the 'thoroughness and impartiality of investigations conducted on incidents at Ranger in 2000, 2002 and 2004' and the highly critical reports that resulted from these investigations.<sup>193</sup> The DEH noted that the NT Government had used two OSS reports as the basis for a successful prosecution of ERA, concluding that the OSS was therefore 'not subject to regulatory capture.'<sup>194</sup> It was also argued that the acceptance by an OSS staff member of a position with ERA was 'not evidence of a decline in the organisational independence of the Supervising Scientist.'<sup>195</sup>

- The ACF was disappointed with what it perceived to be the inadequate funding of the OSS.<sup>196</sup>

In contrast, the DEH stated that 'the funding currently provided to the Supervising Scientist is considered adequate' for the fulfilment of the OSS's functions.<sup>197</sup> It noted that the ARRTC can recommend, if it believes it is necessary, that additional funding be provided to the

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188 DEH, *Submission no. 55.1, loc. cit.*

189 *ibid.*

190 *ibid.*

191 ACF, *loc. cit.*

192 DEH, *Submission no. 55.1*, pp. 4-5.

193 *ibid.*

194 *ibid.*, p. 5.

195 *ibid.*

196 ACF, *loc. cit.*

197 DEH, *Submission no. 55.1, loc. cit.*

ERISS, and that no such recommendation had been made in the last five years.<sup>198</sup>

- The ACF also believed that the OSS relied too heavily on ‘data, processes and analyses provided by ERA’.<sup>199</sup>

The DEH refuted this claim, noting that the OSS runs an ‘independent chemical, biological and radiological monitoring program’ in the ARR, and it is on the basis of this data, not only those produced by ERA, that the OSS reaches its conclusions.<sup>200</sup> The DEH added that all of the data collected by the OSS is made public as quickly as possible, through the OSS website, Annual Report, and biannual reports to ARRAC.<sup>201</sup>

- The ACF was critical of the OSS allegedly ‘prioritising ERA’s operational needs over other considerations’.<sup>202</sup>

The DEH rejected this claim, on the basis that it did not believe there was any evidence to support the assertion.<sup>203</sup> Indeed, correspondence between the OSS and ERA, made public in the former’s report into the 2004 Ranger water contamination incident, demonstrates the OSS’s determination to ensure that ‘the environment and health of workers and the local people would not be put at risk’ despite ERA’s operational considerations.<sup>204</sup>

- The ACF condemned the OSS for allegedly failing to adequately engage Traditional Owners or reflect their concerns.<sup>205</sup>

The DEH countered this assertion, noting that the OSS has a full-time employee in Jabiru whose specific role involves communication and engagement with the Traditional Owners on a daily basis. It also noted that the Executive Officer of the GAC had recently ‘stated publicly that the Traditional Owners trusted the Supervising Scientist.’<sup>206</sup>

- Finally, the ACF was critical of the perceived over-reliance of the OSS on voluntary and informal undertakings between agencies and ERA.<sup>207</sup>

The DEH noted that no reason had been given for the ACF’s assertion.<sup>208</sup>

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198 *ibid.*

199 ACF, *loc. cit.*

200 DEH, *Submission no. 55.1, loc. cit.*

201 *ibid.*

202 ACF, *loc. cit.*

203 DEH, *Submission no. 55.1, loc. cit.*

204 *ibid.*

205 ACF, *op. cit.*, p. 23.

206 DEH, *Submission no. 55.1, loc. cit.*

207 ACF, *loc. cit.*

10.161 Responding to a proposal to merge ERISS with ARRAC and split the combined organisation from the SSD, the Supervising Scientist advised that this had been considered and rejected on a number of occasions. It was argued that the current model has the important benefit of being able to provide the Supervising Scientist with immediate capacity and ‘expertise on hand immediately’, should the need arise – as was required with the potable water contamination incident at Ranger in 2004:

We were able to respond instantly, essentially, to that incident. I was able to go out to Jabiru within days of the incident and assure the workers and the people of Jabiru that we had already measured the radionuclide content of the water and that no one had received a significant radiation dose. That was possible only because I was able to turn to my institute immediately and say, ‘I need you off. Stop doing everything you’re doing and work on this.’<sup>209</sup>

10.162 The NTMC was supportive of the role of the OSS:

... the Minerals Council supports the work of the Office of Supervising Scientist and believes that the office is independent in its work and completely impartial and unbiased in its reviews and regulation.<sup>210</sup>

10.163 Among the ACF’s recommendations for reforming the regulatory environment, was the suggestion that the ‘on-ground’ role of the OSS be expanded.<sup>211</sup>

10.164 The Committee notes the important function performed by the OSS, but that this is limited to oversight of uranium mines in the ARR of the NT. The Committee considers that the expertise of the OSS could perhaps be utilised in relation to approvals and monitoring of other uranium mines throughout Australia. In particular, the Committee notes that under the EPBC Act the Minister for the Environment must assess and approve proposals for new uranium mines or the expansion of existing mines. Expanding the scope of the Supervising Scientist’s responsibilities to examine and monitor all future uranium mines may have merit, for example, in providing the most thorough analysis and advice to the Environment Minister.

10.165 The Committee notes evidence by industry that, in the main, state governments regulate mining very effectively and that the industry

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208 DEH, *Submission no. 55.1*, p. 6.

209 Dr Arthur Johnston, *op. cit.*, p. 7.

210 Ms Kezia Purick, *op. cit.*, p. 33.

211 ACF, *op. cit.*, p. 29; GAC, *op. cit.*, pp. 33–4.

wishes to see any unnecessary duplication across levels of government eliminated. Mindful of the importance of minimising further burdens on industry, the Committee urges that any expanded role for the OSS minimise any additional complexity for industry.

### **Recommendation 6**

**The Committee recommends that the Australian Government examine expanding the role performed by the Office of Supervising Scientist (OSS) in relation to the monitoring and approvals for uranium mines. As an example, the OSS could be given a formal role in advising the Minister for the Environment and Heritage in relation to all uranium mine assessments and approvals under the *Environment Protection and Biodiversity Conservation Act* and the Minister for Industry, Tourism and Resources in relation to the conditions for granting uranium export licenses.**

**Given the proposed expanded role for the OSS, the Committee further recommends that the Environmental Research Institute of the Supervising Scientist (ERISS) be provided with additional resources, potentially in partnership with a suitable university, so as to provide a national research function. The OSS should continue to be able to refer matters to ERISS for research, but ERISS's autonomy should be preserved in terms of the conduct of research and the release of its findings.**

10.166 The ECNT raised concerns of staff moving between ERA, the OSS and the NT Department of Mines:

... over the years there has been quite a steady flow of personnel between senior management of the Office of the Supervising Scientist and the uranium mining company itself and also the Northern Territory Department of Mines. So you have what can appear to a bit of a revolving door happening, where you have got the regulators moving off to work for the company and then company people going off to work for the regulators and it all starts to become pretty murky.<sup>212</sup>

10.167 ACF also alleged regulatory capture of the OSS by the uranium industry, and specifically by ERA.<sup>213</sup> The Supervising Scientist responded that:

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212 Mr Peter Robertson, *op. cit.*, p. 7.

213 ACF, *op. cit.*, p. 22.

... I find it strange that anyone could suggest that the Supervising Scientist has been captured by the industry when you look at the number of inquiries we have conducted over the last five years and at the reports that I have given to the minister, which have been tabled in the parliament and which have been highly critical of the ERA. Indeed, if you look at the water contamination incident that occurred last year you will see in the report that we wrote all the correspondence between me, the mining company and the Northern Territory regulator. You will find that it is absolutely clear in that correspondence that I insisted that, before I would support recommencement of milling activities, I would need to be absolutely convinced that all necessary steps had been taken to ensure that an incident of that kind could not be repeated. As a result, the mining company could not operate for 14 days. That is a very significant impost on any operation and financially a very significant cost.

So I refute any suggestion that there was regulatory capture. It is not just a statement; I think the evidence is quite clear in the way we have conducted ourselves over the years and in the reports that we have written.<sup>214</sup>

- 10.168 The Territory Government listed the type and frequency of monitoring, audit and inspection undertaken of the Ranger mine site, as well as the environmental monitoring of surface and groundwater around the mine.<sup>215</sup> The NT Government rejected claims of regulatory capture by ERA and over reliance on company derived data:

Yes, Ranger does monitoring and provides results to us and the Supervising Scientist, and I understand that is publicly available ... No, we do not rely on that advice. Both the Northern Territory government and the Commonwealth do what we call 'check monitoring programs'. They do not always know when we are going there. We take samples. We get our own results and the Commonwealth gets their own results. We would look at those results against ERA's results at approximately the same time – maybe even at the same time – and if there were any anomalies there we are onto that.<sup>216</sup>

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214 Dr Arthur Johnston, *op. cit.*, pp. 12–13.

215 Mr Keith Tayler (NT Government), *Transcript of Evidence*, 24 October 2005, pp. 62–64.

216 Mr Richard Jackson, *op. cit.*, p. 60.

## Agency conflicts of interest

10.169 A number of submitters alleged that there is a failure to properly separate regulatory and industry development support functions within state and territory governments. Dr Gavin Mudd criticised the current regulatory framework for what he perceived to be a ‘fundamental conflict of interest’.<sup>217</sup> Dr Mudd’s concerns related to the potential for agency-based conflicts of interest due to the incongruous roles of agencies as both promoters and regulators of the uranium industry:

There is a fundamental conflict of interest for a department of mines type of agency, whether it is in South Australia or the Northern Territory, to be both the active promoter and developer of the mining industry and its environmental regulator. They need to be separate ... If they are legislated to be both a promoter and a regulator, that is a fundamental conflict of interest. They cannot do their job properly because in one sense they want to promote the industry but in the other sense they cannot regulate it to the extent that it really needs in order to meet legitimate community expectations. Olympic Dam is a good case study because most of the powers for normal regulation of most types of mining do not apply because of the Roxby Downs Indenture Act.<sup>218</sup>

10.170 The ECNT called for the creation of a regulator:

... that is open and transparent, does not have conflicts of interest, is not subject to manipulation by the government or minister of the day, and does its job diligently. So far, we are still waiting to see that in relation to uranium mines in the Northern Territory.<sup>219</sup>

10.171 The NT Government argued that following a recent regulatory review, new mechanisms have now been put in place:

... to make sure that those development issues are kept separate from the regulatory issues to the point where we could come to loggerheads with our mine development people if we thought there were issues there.<sup>220</sup>

10.172 While industry were appreciative of the Commonwealth’s decision to intervene in the approvals process for uranium mining in the NT, the ECNT expressed opposition:

The Commonwealth has said that it intends taking over the approval of new uranium mines in the Northern Territory but the

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217 Dr Gavin Mudd, *Submission no. 27*, p. 14.

218 Dr Gavin Mudd, *Transcript of Evidence, op. cit.*, pp. 43–44.

219 Mr Peter Robertson, *op. cit.*, p. 7.

220 Mr Richard Jackson, *op. cit.*, p. 66.



Commonwealth has shown over many decades that it cannot be trusted with uranium mines in the Northern Territory. From Rum Jungle to Ranger and Koongarra to Jabiluka, the Commonwealth has always put commercial gain and perceived political and strategic interests ahead of the environment, Indigenous people, public health and safety and future generations.<sup>221</sup>

- 10.173 ECNT felt that although they were members of the ARRAC the information on which decisions are based is not available to the ECNT.
- 10.174 In the remainder of the chapter, the Committee considers issues associated with the impact of uranium mining on Aboriginal communities.

## Aboriginal communities and uranium mining

- 10.175 The Committee received evidence in relation to the social impact of uranium mining on Aboriginal communities. This included concerns regarding the present regulatory environment in providing adequate consultation and benefits for Traditional Owners and Aboriginal groups. Four specific issues are described in further detail below:
- social impact monitoring;
  - consultation practices and processes;
  - employment and training opportunities; and
  - limitations of the *Aboriginal Land Rights Act*.

### Social impact monitoring

- 10.176 One specific concern expressed by submitters was an alleged lack of reporting and attention given to cultural and social impacts and the failure to adequately or appropriately engage Aboriginal Traditional Owners. For example, APChem argued that the social impacts of uranium mining have not been adequately examined.<sup>222</sup>
- 10.177 The NLC stated that uranium mining has had an 'profound effect' on the lives of Aboriginal people in the ARR. Justice Fox allegedly predicted negative impacts of uranium mining on local Aboriginal communities, and the NLC assessed that these consequences have come to pass.<sup>223</sup> The GAC concurred with this view, alleging that uranium mining has been socially destructive for Aboriginal communities.<sup>224</sup> The Medical

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221 Mr Peter Robertson, *op. cit.*, p. 1.

222 APChem, *op. cit.*, p. 6.

223 NLC, *op. cit.*, p. 7.

224 GAC, *op. cit.*, pp. 48-9.

Association for the Prevention of War (MAPW) claimed that the further development of the uranium industry in Australia would only add to the burdens of Aboriginal communities.<sup>225</sup>

- 10.178 Several submitters were critical of uranium mining's social impacts on Aboriginal communities and maintained that monitoring of this dimension is inadequate.<sup>226</sup> FOE argued that 'social impact assessment, consultation and approval processes with traditional owners and affected Aboriginal people is inadequate.'<sup>227</sup>
- 10.179 In relation to the monitoring of the social impacts outlined above, the GAC's view was that such monitoring was lacking, and that:
- ... the limited social impact monitoring that has occurred has been more a process of documenting devastation caused by development, rather than seeking to ameliorate its effects.<sup>228</sup>
- 10.180 The NLC argued that no specific provision has been made for the ongoing monitoring of the extent to which NT uranium mines have a social impact on Traditional Owners and Indigenous communities.<sup>229</sup>
- 10.181 To this, the DEH responded that the Aboriginal Project Committee, set up in October 1996 to examine experiences of development in the Kakadu region, had rejected the recommendation of an independent consultant for the ERISS to conduct ongoing social impact assessments.<sup>230</sup>
- 10.182 The GAC argued that social impact monitoring must be reflected in the regulatory arrangements for the management of uranium mines. It advocates a statutory role to participate in MSTCs, but the NLC rejected this proposal.<sup>231</sup>
- 10.183 The DEH noted that major social impact consideration was included in the Kakadu Regional Social Impact Study (KRSIS), a project undertaken in 1997 that intended to identify the potential social impact on Aboriginal communities of the Kakadu region being developed.<sup>232</sup> The NLC suggested that, as a first priority, the Australian Government should act

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225 MAPW (WA Branch), *Submission no. 8*, p. 2.

226 See for example: GAC, *op. cit.*, p. 49; Miss Michaela Stubbs (FOE), *Transcript of Evidence*, 19 August 2005, p. 58; ACF, *op. cit.*, p. 21.

227 Miss Michaela Stubbs, *ibid.*

228 GAC, *ibid.*

229 NLC, *op. cit.*, p. 7.

230 DEH, *Submission no. 55.1*, p. 6.

231 GAC, *op. cit.*, p. 57.

232 DEH, *Submission no. 55*, p. 22; Bob Collins, *Kakadu Region Social Impact Study – Community Report*, KRSIS Implementation Team, Darwin, 2000, p. 1, viewed 20 August 2006, <<http://www.deh.gov.au/ssd/publications/krsis-reports/impact-study/pubs/krsis-report.pdf>>.

on those recommendations of the KRSIS which have not yet received attention of Government.<sup>233</sup>

- 10.184 The GAC was critical of the KRSIS process, instead calling for a new system for assessing social impact. The GAC argued that social impact monitoring and reporting should be conducted independently, in close consultation with the Traditional Owners.<sup>234</sup>
- 10.185 The Committee is not clear as to why the KRSIS proposals have not been progressed but has been informed that disengagement by the Traditional Owners may have contributed. The Committee regrets that the GAC chose not to appear before the Committee at its public hearing in Darwin.
- 10.186 The NLC conceded that services in Jabiru are better because of the presence of the mine, but are still not adequate.<sup>235</sup> However, it was also observed that the KRSIS found that 'whether a mine was next to a large Aboriginal community or 1,000 miles away, most of the social problems were identical.'<sup>236</sup> Similarly, APChem argued that social dysfunction is 'not particular to uranium mining, but is endemic to the mining industry and becomes more noticeable where industrial developments occur in remote areas.'<sup>237</sup>
- 10.187 For its part, the uranium industry stated that it seeks to ensure local communities benefit from its presence and Australia's three operating mines are subject to extensive assessment.<sup>238</sup> Existing producers recognised that the viability of local communities is dependent on the sustainability of the mines, and therefore seek to:
- respect cultural heritage;
  - communicate openly and transparently with local communities;
  - support the development of local and regional communities; and
  - identify and facilitate employment, training and business opportunities for local communities.<sup>239</sup>

## Consultation practices and processes

- 10.188 A number of submitters were critical of consultation practices and processes adopted by industry and government. For instance, FOE asserted that mining companies unduly pressure Indigenous communities

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233 Mr Norman Fry, *op. cit.*, p. 20.

234 GAC, *op. cit.*, pp. 32, 47-9.

235 Mr Norman Fry, *op. cit.*, p. 27.

236 *ibid.*

237 APChem, *loc. cit.*

238 UIC, *Submission no. 12*, p. 44.

239 *ibid.*

and use divisive tactics.<sup>240</sup> However, one submitter replied that 'Aboriginal people have been shamelessly used and abused by the anti-development lobby.'<sup>241</sup>

10.189 The GAC insisted that the key issue with the current process is a lack of a 'sense of control' by the Traditional Owners. The GAC was particularly critical of service provision being dependent on mining activity, and called for service provision and social impact monitoring to be separated from mining activity.<sup>242</sup>

10.190 The GAC was of the view that negotiations should be administered by an independent body and a:

... comprehensive plan for future engagement in processes should be designed, in consultation with Aboriginal people, and implemented before further development occurs.<sup>243</sup>

10.191 Claims of poor consultation practices were rejected by government and industry, with various examples of proactive and successful consultation being offered by submitters. For example, the DEH noted that Indigenous communities are engaged through the EPBC Act referral, assessment and approval processes:

Indigenous groups have utilised the EPBC Act public comment processes to comment on referrals and environmental assessments. For example, comments were received from Indigenous groups on the Waste Repository proposal in South Australia. Comments on proposed actions are also received in letters to the Minister.<sup>244</sup>

10.192 Furthermore, the DEH advised that ongoing engagement with Aboriginal communities is facilitated through:

... Aboriginal representation on the Alligator Rivers Region Advisory and Technical Committees, various Minesite Technical Committees, the Gunlom Land Trust rehabilitation program of the South Alligator Valley legacy mining sites and numerous ad hoc consultations.<sup>245</sup>

10.193 The OSS employs a full-time staff member in Jabiru whose role involves day-to-day communication and engagement with Aboriginal communities, including Traditional Owners.<sup>246</sup> The DEH noted successful

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240 FOE, *op. cit.*, p. 16.

241 Name withheld, *Submission no. 25*, p. 1.

242 GAC, *op. cit.*, p. 49, 54.

243 *ibid.*, p. 49.

244 DEH, *Submission no. 55*, p. 21.

245 *ibid.*, p. 22.

246 DEH, *Submission no. 55.1*, p. 6.

Traditional Owner involvement in revising guidelines, and the positive working relationship between the SSD and OSS, and Aboriginal communities:

The Supervising Scientist Division (SSD) has developed very successful relationships with the Traditional Owners to the extent that some of them now regularly work in the SSD monitoring program. Recently, the Executive Officer of the Gundjeihmi Aboriginal Corporation stated publicly that the Traditional Owners trusted the Supervising Scientist.<sup>247</sup>

10.194 In response to criticisms of the uranium mining industry's – and the minerals industry more generally – alleged history of failure to consult and take Indigenous issues seriously, the MCA argued that whilst this was once an entirely valid criticism, the industry's performance has now dramatically improved:

I think the criticism of the industry's performance in that area of a decade and a half ago is quite valid ... If you had to pick something that has been a paradigm shift in the operations of the Australian minerals industry, I suspect that would be right up the top. We currently have some 350-plus [mainly Indigenous land use] agreements on foot across 200 mining companies ... We have not only proclaimed our respect for rights, cultures, interests and special connections to land and waters but also practised and performed it ... The memorandum of understanding that we have with the federal government, signed by three ministers, to move beyond corporate Indigenous employment programs to build sustainable communities beyond the life of the mine is a great platform ... it will come from local communities identifying needs and expectations in terms of enterprise facilitation, Indigenous employment and the social fabric of society ...<sup>248</sup>

10.195 Mr Harry Kenyon-Slaney observed that the relationship between ERA and the Gundjeihmi people has improved markedly in recent years and that the company has 'a very active, ongoing dialogue with the Traditional Owners on a whole range of issues.'<sup>249</sup> As noted above, the company has expressed its desire to work with the Traditional Owners to ensure that a sustainable community remains following the closure of the mine.

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247 *ibid.*

248 Mr Mitch Hooke (MCA), *Transcript of Evidence*, 5 September 2005, p. 32

249 Mr Harry Kenyon-Slaney, *op. cit.*, p. 55.

10.196 In relation to the possible eventual development of Jabiluka, Mr Kenyon-Slaney remarked that whilst Jabiluka remains a very valuable asset for the company:

... it is not going to be developed without the consent of the traditional owners – we are not going to go back to an adversarial, acrimonious environment where we force development on a people who do not want it – and I believe that that is fundamentally the right way to progress. If benefits can be identified that meet everybody's desires then the project will go ahead.<sup>250</sup>

10.197 Heathgate Resources described the successful negotiation and consultation process the company undertook with the Indigenous communities in the Beverley area over a period of some nine months:

The Beverley mine was the first mine to start in South Australia after the introduction of the native title federal legislation, and some complementary South Australian legislation was also introduced. At the time we were publishing our environmental impact statement and preparing for the construction of the mine, we had four overlapping native title claims over the area of the mine. We were struck with the problem of how to negotiate and achieve agreements with these groups, because without them the mine would not have gone ahead.

... The consultation process we undertook, after a great deal of thought and discussion with legal advisers and others ... was a process whereby we worked out what we thought would be an advantageous program of benefits for the Aboriginal people, which was generally modelled on what had happened in the Northern Territory on Aboriginal land as distinct from native title claimed land.

We called and held ... the largest meeting of the Adnyamathanha and Kuyani people ever held in the Flinders Ranges area. There were about 400 people present, and we presented the program to them. The meeting was held under the adjudication of the local member of parliament. We presented an offer and then we proceeded over subsequent months to negotiate with the parties involved.<sup>251</sup>

10.198 The essential components of the agreement include:

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250 *ibid.*, p. 56.

251 Mr David Brunt (Heathgate Resources), *Transcript of Evidence*, 19 August 2005, p. 99.

... royalties to the Aboriginal people, the Adnyamathanha people and to each of the claim groups ... There are undertakings in respect of employment. Our target is 20 per cent of the site work force and ... we are currently at 25 per cent. There are some other undertakings in respect of contracts for the supply of goods and services for the mine. It was, in many respects, a groundbreaking exercise in South Australia ...<sup>252</sup>

10.199 Currently, BHP Billiton has an agreement in place with three Aboriginal claimant groups and these were negotiated at the time of the most recent expansion of the mine in the late 1990s. The agreement deals with how heritage issues are managed. BHP Billiton noted that during those negotiations the company provided the claimants with resources to fund their administrative needs. Annual funding continues to be provided to the groups as an element of the agreement.<sup>253</sup>

10.200 For the proposed expansion of Olympic Dam, BHP Billiton noted that the company is currently in negotiations with the three native title claimants, none of whom live in the area of the mine. The company reported that it has signed terms of reference for discussions with the claimants and expects negotiations to be successfully concluded within a year.

Mr Richard Yeeles of BHP Billiton explained that:

In fact, we had all the groups up in Olympic Dam a couple of weeks ago with their legal advisers. They wanted an understanding of where this open pit would go and the sort of impact it would have on the land. We showed them that. We showed them where the waste rock dump may go. I must say, the negotiations so far have been conducted in a very cooperative spirit. The groups are obviously interested in the benefits that may be available to their communities from what we would hope to finalise as an Indigenous land use agreement. We are very optimistic that over the next 12 months we will be able to put something in place which will deliver what we need in terms of land access, and also give to the community some sustainable benefits in terms of training and employment programs and other benefits.<sup>254</sup>

10.201 Jindalee Resources, owners of the Bigrlyi uranium deposit in the NT, also mentioned the importance of the involvement and support of the local Indigenous community to the viability of the company's project:

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252 *ibid.*, p. 100.

253 Mr Richard Yeeles (BHP Billiton Ltd), *Transcript of Evidence*, 2 November 2005, pp. 18.

254 *ibid.*, p. 17.

The local Aboriginal community is a shareholder in the Bigrlyi uranium mine in the Northern Territory, which we will hopefully bring on in a couple of years time. They have quite a significant chunk of it and they are already doing a bit of contracting for us. This is part of getting the community involved, and those people are enormously on-side.<sup>255</sup>

- 10.202 Summit Resources, which is currently prevented from mining its uranium deposits in Queensland, stated that it has the complete support of the Traditional Owners – the Kalkadoon and Walwuarra Peoples:

We have the traditional owners supporting us at Mt Isa. We have resolved all the native title claim matters with them and we are able to get on with our work.<sup>256</sup>

- 10.203 Moreover, Summit explained that the Kalkadoon People supply the company with some equipment for its exploration activities. The agreements the company has in place with the Traditional Owners provides the opportunity for the Aboriginal people to provide the company with services and workers.<sup>257</sup>

- 10.204 Junior uranium exploration companies also expressed a keenness to work with and to support Indigenous communities. Nova Energy, owners of the Lake Way and Centipede deposits in WA commented that:

I think the big opportunity that presents itself is probably to have a greater engagement from the Aboriginal community at Wiluna. We have worked a great deal towards encouraging the development of Indigenous businesses. We assist the community in many ways: we put money into trust funds for the community, we part-fund doctors, we help the local school. But all of this is quite challenging in the current gold price environment, because margins are very thin in Australian goldmining these days. A business such as this – a new business that has very high margins – would have much greater capacity for assisting with community development from day one.<sup>258</sup>

- 10.205 In relation to capacity, there was some question as to whether Traditional Owners have the educational background to effectively engage in consultation and negotiations.<sup>259</sup> The role of the Land Councils was also noted, and there was some suggestion that these bodies may not, in all

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255 Mr Donald Kennedy (Jindalee Resources Ltd), *Transcript of Evidence*, 23 September 2005, p. 58.

256 Mr Alan Eggers (Summit Resources Ltd), *Transcript of Evidence*, 3 November 2005, p. 6.

257 *ibid.*, p. 11.

258 Dr Timothy Sugden (Nova Energy Ltd), *Transcript of Evidence*, 23 September 2005, p. 80.

259 Mr James Pratt (Deep Yellow Ltd), *Transcript of Evidence*, 23 September 2005, pp. 84–85.



cases, be constructive in facilitating clear communication between mining companies and the Traditional Owners.<sup>260</sup>

## Employment and training opportunities

- 10.206 The Committee received evidence in relation to employment and training opportunities available to Indigenous communities. The following section provides some background on current employment and training initiatives, details some criticisms relating to perceived inadequacies of such initiatives, and outlines industry's response.
- 10.207 In general, mining companies and exploration companies expressed a strong interest in providing employment for Aboriginal people at mine sites. For instance, as a junior exploration company with interests in the NT, Compass Resources indicated its intention to work with the NLC and the local Indigenous communities to provide employment opportunities for the Aboriginal people in the area of its proposed developments.<sup>261</sup>
- 10.208 In relation to Indigenous employment at Olympic Dam, BHP Billiton reported that the company has two initiatives: Aboriginal people from the claimant groups are employed at the mine, although not in large numbers, and these people commute from Whyalla; and the company conducts 'job readiness' programs:
- We bring people in to the site, run them through training programs so that they have tickets to operate heavy equipment – to operate a forklift or a crane – and are therefore available. If they choose to apply for jobs, they are then qualified to apply for them. We put a lot more people through the job readiness programs than actually come back and apply for jobs, but we do have a program to make sure people are in a position to compete in the market for jobs.<sup>262</sup>
- 10.209 Heathgate Resources explained that the company's success in achieving 25 per cent employment for Aboriginal people at the Beverley mine site was due, firstly, to a real commitment by the company to achieve an Indigenous employment outcome. Heathgate also explained that the company initiated a program whereby two Aboriginal liaison officers report directly to the General Manager on matters affecting Aboriginal people in order to ensure that these issues are addressed quickly. In addition, the company conducts quarterly meetings with claimants to allow the Aboriginal communities to communicate issues of concern to the

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260 *ibid.*

261 Dr Malcolm Humphreys, *op. cit.*, p. 66.

262 Mr Richard Yeeles, *op. cit.*, p. 18.

company and for Heathgate to update the communities on the company's activities. Heathgate also claimed to have made a substantial investment in training.<sup>263</sup>

- 10.210 Heathgate Resources explained that the company perceives that the issue of greatest concern to Aboriginal people in the area of the Beverley mine is employment, not royalties:

When we have meetings with the Aboriginal community, they want to know what the employment numbers are. We get more credibility from the Aboriginal people when we can say that we are not 20 per cent, we are 25 per cent. If we are at 25 per cent, we are going to try to go to 30 per cent and to 35 per cent. We are not going to stop at 25 per cent.<sup>264</sup>

- 10.211 However, in the NT, the NLC was critical of the allegedly 'glaring failures' of ERA in the lack of employment opportunities for Aboriginal people in the area, with few of the Aborigines employed at Ranger coming from the local Mirrar people.<sup>265</sup> However, the NTMC noted that of a total staff of 300, ERA employs some 45 Aboriginal people at its operations and noted that:

There have been difficulties in employing local Aboriginal people because the traditional owners in that area did not approve of their people working at the mine and they expressed discomfort with other Aboriginal people coming in from outside the area.

However, the company is engaged in discussions with the local people on these issues, and those discussions are ongoing.<sup>266</sup>

- 10.212 Mr Harry Kenyon-Slaney noted that ERA is actively involved in a range of employment, educational and social programs for the community in the vicinity of the Ranger mine:

The broader work that we do in the community is very significant. We are actively involved with the local traditional owners on a range of social programs. We have been working with them on a youth centre, Aboriginal employment opportunities and trying to improve opportunities for schooling at years 11 and 12. There are programs in respect of alcohol and management. We work on the ground in the community on these issues constantly, and have done for many years. These are difficult issues that have no

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263 Mr Mark Chalmers, *op. cit.*, p. 100.

264 *ibid.*, p. 102.

265 Mr Norman Fry, *op. cit.*, p. 20.

266 Ms Kezia Purick, *op. cit.*, pp. 32-33.

immediate solution but they require everyone to participate. We try to do that very actively.<sup>267</sup>

- 10.213 The ERA *Social and Environmental Report 2005* identifies a real increase in the number of Aboriginal employees in the company, and communicates the company's undertaking to give greater focus to providing more employment and training opportunities to Aboriginal communities:

The Aboriginal participation rate in the company was 13 per cent, an increase from 10.5 per cent at the end of 2004, but also reflecting higher numbers of overall ERA permanent and fixed-term employees (2005: 305; 2004: 277; 2003: 238). ERA has announced it will make increased Aboriginal employment and training a key objective in 2006.<sup>268</sup>

- 10.214 Notwithstanding this marginal improvement, the NLC claimed that such poor outcomes for Aboriginal employment and training must not continue, particularly given successes with Indigenous populations in other parts of Australia and overseas.<sup>269</sup> For instance:

... Queensland Mines employed over 200 local Aboriginal people (out of a population of around 800) at Nabarlek between 1980 and 1987 ...<sup>270</sup>

- 10.215 Mr Jerry Grandey, President of Cameco Corporation, which mines uranium in the Canadian province of Saskatchewan, stated that 80 per cent of the company's 1 500 employees in the northern part of the province are of Aboriginal descent and 60 per cent are residents of the north. Cameco argued that a key to its success in winning public support for uranium mining has been its efforts at working with Aboriginal people:

... the issues about aboriginal employment, bringing on aboriginal business, creating trucking and mining consultations and catering, and expertise and infrastructure within the aboriginal community are things that we have been working on over the course of about 20 years.<sup>271</sup>

- 10.216 Cameco has implemented a number of different strategies to increase Aboriginal employment and training in Saskatchewan, including:

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267 Mr Harry Kenyon-Slaney, *op. cit.*, p. 55.

268 ERA, *Social and Environmental Report 2005*, ERA, Darwin, 2005, p. 10, viewed 7 August 2006 <[http://www.energyres.com.au/corporate/ERA\\_SE\\_Rep05ART.pdf](http://www.energyres.com.au/corporate/ERA_SE_Rep05ART.pdf)>.

269 NLC, *op. cit.*, p. 8.

270 *ibid.*

271 Mr Jerry Grandey (Cameco Corporation), *Transcript of Evidence*, 11 August 2005, p. 2.

- a range of economic, social and community relations programs that are designed to ensure that the company's activities are undertaken in an inclusive, sensitive and socially appropriate way;<sup>272</sup>
- a special training agreement with industry partners, indigenous community representatives, and federal and provincial governments, resulting in hundreds of aboriginal northerners being trained for employment in the mining industry;<sup>273</sup>
- supporting post-secondary scholarships, education awards programs, northern summer student employment, science camps, site tours and career counselling;<sup>274</sup>
- working with teachers and curriculum developers to facilitate the integration of maths and science programs in local schools;<sup>275</sup> and
- supporting a business program to encourage the development of aboriginal businesses used by the mining operation.

10.217 This last initiative, of supporting Indigenous businesses used by the mining operation, has resulted in over 70 per cent of Cameco's contracted services being provided by 16 local suppliers, 10 of which are majority owned by aboriginal people.<sup>276</sup>

10.218 Several submitters highlighted impediments to higher rates of Aboriginal employment in the uranium industry, including low educational attainment and geographical isolation. For instance, BHP Billiton noted that a barrier to employment for Aboriginal people at Olympic Dam is the remoteness of the mine and the decision of many not to live at Roxby Downs.

10.219 The NTMC also observed that mining companies operating in the Territory often want to employ more Aboriginal people, but one of the main impediments to doing so is poor literacy and numeracy among Aboriginal people:

Companies embark on their own bridging programs to get the young adults up to a level of literacy and numeracy such that they can work on a mine site in any capacity. The most obvious component is safety: you must be able to read the safety signs and everything that goes with the safety regime of a mine site. Yes, it is a problem, but the companies are always trying to address that

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272 Cameco Corporation, *Exhibit no. 69, Speech presented by Mr Jamie McIntyre*, p. 3; Cameco Corporation, *Exhibit no. 70, Speech presented by Chief Harry Cook*, p. 19.

273 Cameco Corporation, *Exhibit no. 69, ibid.*, p. 4; Cameco Corporation, *Exhibit no. 70, ibid.*, p. 14.

274 Cameco Corporation, *Exhibit no. 69, ibid.*

275 *ibid.*

276 *ibid.*, p. 5; Cameco Corporation, *Exhibit no. 70, op. cit.*, p. 9.

issue in order to get more employment opportunities for the local Aboriginal people.<sup>277</sup>

- 10.220 Low educational attainment also impacts on the capacity of Indigenous peoples to take advantage of employment opportunities in the uranium industry. The importance of education was demonstrated by Cameco's success with aboriginal employment in Canada:

In Canada there has been a very long period of effort towards education in the communities: of making sure that you had maths, science and some engineering introduced to the stage of the school curriculum where you could capture junior high and high school level students and of giving them opportunities and scholarships, of public education programs and of community involvement.<sup>278</sup>

- 10.221 For their part, the NLC readily conceded that literacy and numeracy is an important issue, and called for equitable funding for education in remote Aboriginal communities.<sup>279</sup>

- 10.222 Despite these challenges, the NLC noted previous examples of successful mining operations which facilitated increased employment and training opportunities for Aboriginal communities. It therefore called for enforceable employment targets, employment and training clauses in mining agreements, and the introduction of Indigenous business support and tax incentives similar to those in place in Saskatchewan.<sup>280</sup>

- 10.223 The NTMC, however, observed that the situation in the NT is 'quite different' from Cameco's successes in providing employment for Indigenous people. Whilst Australia should strive to achieve the Canadian outcomes, the NTMC warned against setting specific targets:

I think we should strive to work very closely with the land council and the traditional owners to improve that, but not on a target driven basis, particularly where there are potential penalties. I think the thing to bear in mind is that it has taken us a long time in Canada to achieve those results, and unfortunately it is going to take a long time here. The industry has to strive to get to that point if it can.<sup>281</sup>

- 10.224 In relation to the inclusion of employment and training clauses in mining leases, the NTMC responded that these are 'standard in all agreements.'

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277 Ms Kezia Purick, *op. cit.*, p. 44.

278 Mr Jerry Grandey, *op. cit.*, p. 6.

279 Mr John Daly (NLC), *Transcript of Evidence*, 24 October 2005, p. 26; Mr Norman Fry, *op. cit.*, p. 29.

280 NLC, *op. cit.*, p. 9.

281 Dr Ron Matthews (NTMC), *Transcript of Evidence*, 24 October 2005, p. 44.

Whether they are native title agreements or land rights agreements, there are always provisions for employment and training.<sup>282</sup>

- 10.225 The Committee recognises some of the complexities associated with these issues, not the least of which is the opposition to Ranger's continued operation by the Traditional Owners. This in turn makes it difficult for the company to provide employment if the local Aboriginal people are effectively barred from seeking employment with the company. The Committee is sympathetic to the position in which the company finds itself in this respect.
- 10.226 The Committee is very pleased to note the success that Heathgate Resources has achieved in its employment of Aboriginal people at its Beverley operation in SA. The Committee notes that this outcome was achieved through the company's commitment to increasing Aboriginal employment and its implementation of a number of specific initiatives, including the employment of Aboriginal liaison officers with direct access to management, and an investment in training.<sup>283</sup>
- 10.227 The Committee hopes that Heathgate Resources' success in Aboriginal employment can be emulated by other companies so that the benefits of mining can be enjoyed by greater numbers of Aboriginal people and their communities nationwide.
- 10.228 The Committee believes that strategies should be developed to improve industry's training and employment outcomes at uranium mines in Australia, with consideration given to studying and, if possible, emulating Cameco's experience in Saskatchewan. The Committee is conscious of the observation by industry and Cameco itself that the success in Saskatchewan took decades to achieve. Nonetheless, the Committee believes that industry, Aboriginal communities and governments should strive to achieve similar outcomes in Australia.

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282 Mr Neville Henwood (NTMC), *Transcript of Evidence*, 24 October 2005, p. 43.

283 Mr Mark Chalmers, *op. cit.*, p. 100.

## Recommendation 7

**The Committee recommends that the Australian Government work with industry, Indigenous groups and state/territory governments to develop strategies to improve Indigenous training and employment outcomes at uranium mines, with consideration given to studying and, if possible, emulating the strategies employed by Cameco Corporation and governments in Canada. The Committee further recommends that, where appropriate, mining companies consider employing Aboriginal liaison officers with direct access to management.**

**To ensure adequate local community consultation, the Committee further recommends that a process be established whereby it and its successor committees be formally given access to new uranium mine sites, with customary powers of inquiry and report to the Parliament. This process should formally provide for affected local governments to nominate a person to liaise with the Committee about any community concerns.**

## Aboriginal Land Rights Act

10.229 The NLC drew the Committee's attention to the Canadian model of joint ventures between mining companies and Indigenous businesses. Again, the NLC emphasised that:

... we want all of the constraints to really getting us to the table of commercial reality removed from the Land Rights Act so that we can really play on the same landscape as everybody else.<sup>284</sup>

10.230 When asked whether it agreed with the opposition to new uranium mines by the NT Government, the NLC responded:

Utterly not ... That is quite a silly situation for government to get itself into, and the only losers in this are traditional owners and mining companies in the Australian and Territory economies.<sup>285</sup>

10.231 In terms of increasing the social dividend for Aboriginal people in the NT, the NLC argued that mining agreements be commercially defined and of a commercial nature. To achieve this, the NLC called for the amendments to part four of the *Aboriginal Land Rights Act* (ALRA), previously agreed to by the four land councils and the NT Government, to be enacted in the

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284 Mr Norman Fry, *op. cit.*, p. 22.

285 *ibid.*, p. 21.

Federal Parliament.<sup>286</sup> The NLC claimed that the large mining companies support this approach.<sup>287</sup>

10.232 While noting that there have been no new mines developed on Aboriginal land in the NLC area since the ALRA was introduced, the NTMC noted that the NLC has a 'very commercial focus' and that 'it is easier to get things done.'<sup>288</sup> However, the NTMC rejected the argument by the Land Council that amendments are required to part four of the ALRA in order facilitate mining agreements:

Contrary, perhaps, to what Mr Fry said earlier, there is not really a need to change part 4 to facilitate agreements being reached, or to facilitate any terms of those agreements. I do not think the proposed package of reforms that has been put by the land councils or the Northern Territory government does much more than fiddle around the edges. At a fundamental level, the Minerals Council would prefer that the exercise of the veto was up the front rather than at the back end of negotiation, but that is something that we have agreed to disagree on.<sup>289</sup>

10.233 In addition to seeing the Aboriginal right of veto exercised up front, the NTMC also argued that the division of royalty monies be adjusted so that the monies that currently go to the Aboriginal Benefits Reserve (30 per cent of the total) are instead allocated to the Traditional Owners and others directly affected by mining operations. In this way, the Traditional Owners would receive 60 per cent of royalty monies, with the remaining 40 per cent continuing to be split between the Land Councils.<sup>290</sup>

10.234 The Committee notes the intention of the Australian Government to introduce changes to the ALRA so as to improve the workability of the legislation for the benefits of mining companies and traditional land owners.<sup>291</sup>

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286 *ibid.*, p. 20; NLC, *Submission no. 78.1*, p. 4.

287 Mr Norman Fry, *ibid.*, p. 28.

288 Mr Neville Henwood, *op. cit.*, p. 37.

289 *ibid.*, p. 38.

290 *ibid.*, p. 41.

291 NLC, *Transcript of Evidence*, 24 October 2005, pp. 20-29.



## Conclusions

### Regulation

- 10.235 While the regulation of uranium mining is principally a state and territory government responsibility, the Australian Government's interests and responsibilities in this area include:
- environmental assessment and approval of new uranium mines and significant expansion of existing mines;
  - ownership of uranium in the NT; and
  - oversight of uranium mining operations in the ARR of the NT through the SSD.
- 10.236 Criticisms of existing regulatory arrangements were largely directed to the adequacy of provisions for environmental protection from the impacts of uranium mining in the Kakadu National Park and the ARR. Criticisms were also made of the performance of the OSS which, among a number of allegations, was said to have been 'captured' by ERA. The OSS provided convincing rebuttals to each of these allegations, as well as to arguments relating to the adequacy of tailings and water management at Ranger.
- 10.237 The Committee rejects the claim that the regulation of uranium mining in the ARR is inadequate. The owners of the Ranger mine meet some of the most rigorous reporting regimes in Australia and there is extensive formal oversight of its operations. The Ranger operation is monitored and regulated by a range of independent bodies including Australian Government agencies (OSS, DITR and ASNO), NT Government agencies (particularly DPIFM), and independent review bodies, namely the MSTCs, ARRTC and ARRAC.
- 10.238 Moreover, the Committee notes that monitoring and research by the OSS since 1978 has concluded that uranium mining operations at Ranger have had *no* detrimental impact on the Kakadu National Park. This confirms that the regulatory regime governing uranium mining in the ARR has indeed succeeded in protecting the environment from any harmful impacts caused by uranium mining.
- 10.239 Uranium mining regulation in the ARR has, however, evolved into what appears to be an unduly complex regime, comprised of arrangements underpinned by a range of Commonwealth and Territory legislation. The Committee recognises that the complexity may well have been unavoidable because of the combination of factors, including that: mining is taking place on Aboriginal land; the need to protect the Kakadu National Park; and the special nature of uranium. Nonetheless, if a regulatory framework were to be designed from 'scratch' in 2006, it seems

unlikely that a similar framework would be developed. The Committee will not recommend specific improvements but suggests that the entire regulatory regime in the NT should be reviewed with a view to consolidation and simplification.

- 10.240 The Committee notes the GAC's recommendation to consolidate the provisions of the 17 November 2000 Agreement, the Working Arrangements, Part III of the Commonwealth *Atomic Energy Act 1953* and the EPARR Act in order to clarify the responsibilities of the governments and agencies involved in uranium mining activities. The Committee considers that the merits of this proposal should be considered as part of the comprehensive review of NT uranium mining regulation suggested above.
- 10.241 The Committee recommends that consideration should be given to utilising the expertise of the OSS in assessment and approvals processes for uranium mines generally. Mindful that industry wishes to see any unnecessary duplication across levels of government eliminated, the Committee urges that an expanded role for the OSS not add to what is already a highly regulated industry.
- 10.242 Groups critical of uranium mining argued that environmental and health oversight functions are not clearly or adequately separated from industry promotion functions in SA and the NT, or indeed at the Federal level. The NT Government stated that following a recent regulatory review, new mechanisms have now been put in place to ensure industry development and regulatory functions are kept separate. No submission was received from the SA Government.
- 10.243 The Committee is not in a position to judge the veracity of these claims but believes that industry promotion and regulatory/environmental impact assessment functions ought to be clearly separated at all levels of government. The Committee urges the Australian Government to examine this issue and, where necessary, to encourage state governments to rectify any agency-based conflicts of interest and to clearly separate industry promotion and regulatory functions.
- 10.244 Although the Committee believes there have been clear improvements in environmental regulations relating to mine closure and rehabilitation, some partially rehabilitated former mines continue to present pollution problems. The Australian Government's recent decision to allocate some additional funding to address this problem is welcome, but the Committee recommends that the Australian Government redouble efforts to completely rehabilitate former uranium mines in the ARR and elsewhere.

## Aboriginal communities

- 10.245 Despite professing concern that Indigenous groups be consulted, environmental groups revealed that, should Traditional Owners approve a mining development, they would still oppose uranium mining. This seems to support the observation made by one submitter who remarked that Aboriginal groups are being used by some 'no development' groups to support their opposition to uranium mining. Traditional Owners' views are clearly *not* to be respected if they happen to support resource development.
- 10.246 Notwithstanding this, care must be taken to ensure that uranium mining does not impact negatively on local Aboriginal communities. The Committee is of the view that the social impacts of mining operations must be adequately monitored, and Aboriginal communities and Traditional Owners should have an opportunity to share in the benefits associated with a vibrant minerals industry.
- 10.247 The Committee is not convinced that social problems are peculiar to uranium mining, or to Jabiru, Ranger and ERA, but rather that the social problems and issues of service provision in Jabiru are common to large Aboriginal communities wherever they are located.
- 10.248 In relation to employment, the Committee notes impediments to increasing Aboriginal engagement in the uranium industry, including the opposition by some Aboriginal groups and low levels of educational attainment. The Committee sees merit, however, in industry seeking to emulate the examples of mining operations that have succeeded in achieving benefits for Indigenous communities. In particular, the Committee was impressed by the successes of Heathgate Resources at Beverley and Cameco Corporation in Saskatchewan. The Committee strongly urges industry, governments and Indigenous communities themselves to continue to strive to ensure Aboriginal people benefit from uranium mining operations through employment, business and training opportunities.

