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Environmental Regulation of Uranium Mining on Indigenous Land Surrounded by a World Heritage-Listed National Park: A Brief Review of the Ranger Uranium Project

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Introduction

It is often claimed that the Ranger uranium project is one of the world's most regulated mines[2] – but is this sufficient to meet the numerous challenges of operating a uranium mine on indigenous Mirarr-Gundjeihmi land surrounded by the world heritage-listed Kakadu National Park? The Ranger uranium project has certainly had a controversial past, and it would appear to have many years left to run before closure. This article reviews the legal structure which covers the Ranger project, with a particular focus on environmental aspects. It first covers the background and history of the Ranger project and region, followed by the essential legal and legislative framework which governs ongoing operations and future issues such as rehabilitation. The paper is not intended to be a comprehensive review, but rather a sound overview of the history, current legal framework and challenges still posed by this evolving project.

The Ranger Project, Aboriginal Land Rights and Kakadu National Park

In the late 1960's, the Alligator Rivers Region (ARR) some 300 km east of Darwin was still very remote – but it was increasingly being viewed with optimism by many though for very different reasons. The idea of making the area a major national park of equal status to Yosemite or Yellowstone was first proposed in 1964 – though the Commonwealth government was not immediately supportive. In 1968, new geological surveys and interpretation had led to an exploration pegging rush for base metals and uranium. The pastoral leases of Mudginberri and Munmarlary were granted January 1969.

The presence of uranium mineralisation at the Ranger site was first proved in late 1969, with exploration work in 1970 proving a world-class mineral field. Other uranium deposits were also discovered in the ARR around this time, including Nabarlek, Jabiluka and Koongarra. The future seemed very promising, and the joint venturers of Ranger, Peko Wallsend and Electrolytic Zinc ('Peko-EZ'), were quite confident.

The election of the Whitlam-led Commonwealth Government in December 1972 brought major policy changes of critical relevance for the ARR – including support for land rights, a national park, environmental assessment legislation, and perhaps most crucially a desire for uranium mining to be nationalised. This complex combination of conflicting policy directions has been the heart of the debate about Ranger ever since.

Despite this context, Peko-EZ went about with full zeal to develop the Ranger project. Even before the *Environment Protection (Impact of Proposals) Act 1974* ('EPIP') was gazetted, it released Australia's first 'Environmental Impact Statement' (EIS) in February 1974, as it knew

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[2] As detailed later in this paper.

Commonwealth approvals would not be forthcoming without such a study. Two supplements to the EIS were released in May 1975.

On 27 March 1974 Whitlam sought to invoke powers under the *Atomic Energy Act 1953* for uranium in all territories, however, the promulgation of regulations which would have given the Commonwealth Government control of the Ranger project was defeated in the Senate in September 1974 by just two votes (Fisk & Farthing, 1985). With a strong desire to pursue uranium development, on 28 October 1974, the Whitlam Government signed a 'compromise' agreement with Peko-EZ, whereby the Commonwealth Government would take a 50% interest in the Ranger project and fund 72.5% of capital costs (commonly referred to as the 'Lodge Agreement' as it was signed at the Prime Minister's residence in Canberra). The agreement promised to use the *Atomic Energy Act 1953* to authorise the Ranger project.

A major rise in community sentiment against nuclear power and uranium mining, at the same time as strong support for aboriginal land rights, was focussing attention on the ARR, national parks, uranium mining and indigenous issues. There was significant disquiet in some factions of the Whitlam government over their pro-uranium stance, and to address this Whitlam proposed a House of Representatives inquiry on 2 April 1975. Environment Minister Dr Moss Cass held firm and ensured that Whitlam agreed to a full public inquiry on 16 July 1975 using the EPIP Act. The Ranger Uranium Environmental Inquiry (hereinafter referred to as the 'Fox Inquiry') was headed by Justice Russell Fox, with additional commissioners Graeme Kelleher, a civil engineer, and Professor Charles Kerr, from medicine at the University of Sydney. The Fox Inquiry provided yet further delays for the Ranger project, but momentum was gaining nonetheless.

To the casual observer, the Inquiry appeared to be based on the assumption that the Ranger Project would be proceeding (Griffiths, 1998). In retrospect, it would appear unlikely that a government would appoint an inquiry only to be told not to undertake an activity they had invested in so heavily (politically and economically). Pre-empting the Fox Inquiry, on 28 October 1975, Resources Minister Rex Connor signed a new Memorandum of Understanding (MoU) between Peko, EZ and the Australian Atomic Energy Commission (AAEC, the Commonwealth nuclear agency, now ANSTO), approving the project under the *Atomic Energy Act 1953* but subject to the findings of the Fox Inquiry. The MoU first defines the 'Ranger Project Area' (RPA).

Although the Whitlam Government was dismissed on 11 November 1975, the proposed land rights legislation for the Northern Territory was eventually passed by the ensuing Fraser Government, though with heavy amendments and changes. Two key aspects of the eventual *Aboriginal Land Rights (Northern Territory) Act 1976* (commonly referred to as 'ALRA') was that it made the Fox Inquiry the Lands Commissioner for the purposes of the ARR Stage 1 land claim (the area of the Ranger project), as well as removing the right of veto for mining projects in the RPA, thus robbing the Mirarr people of the essence of land rights before their claim was even heard. The statutory body to represent indigenous interests under ALRA is the Northern Land Council (NLC).

The Fox Inquiry handed down its first report on the broader concerns and issues of the nuclear industry and uranium mining in October 1976. The second report, released in May 1977, was a comprehensive study and evaluation of the ARR, the national park issue, indigenous land claims, the Ranger project and all associated issues such as tourism, agriculture, environmental regulation, economics and so on. The second report explicitly recommended against using the *Atomic Energy Act 1953* for approving Ranger. The Fox Inquiry is still viewed as one of the most comprehensive inquiries of its type in the world (despite its perhaps flawed mandate due to the Whitlam government's conflict of interest). The Fox Inquiry was extremely critical of numerous

aspects of the Ranger project's configuration, especially water management, tailings management, radiation aspects and rehabilitation proposals, and proposed a series of measures to address these.

Ultimately, the Fraser government went on to approve the Ranger uranium project in August 1977, including a range of initiatives on nuclear safeguards, establishing a Commonwealth 'Supervising Scientist' to undertake environmental research and advise on mining regulation, approving Kakadu National Park, accepting the Mirarr land rights claim and so on. The legal framework and regulatory arrangements adopted were also part of the negotiations which led to the Northern Territory (NT) attaining self-government in 1978. The package for Ranger (and other potential uranium mines) involved agreements between the Commonwealth and NT Governments, giving daily jurisdictional powers to the NT authorities (recommended against by the Second Fox Inquiry Report) but subject to Commonwealth advice through the Supervising Scientist, as well as some responsibilities being retained by the Commonwealth. Thus there was now the NT 'Supervising Authorities' which signed regulatory approvals (such as the Departments of Mines & Energy and Water Resources), the Supervising Scientist which undertook research and was to provide advice, as well as the Northern Land Council for indigenous matters.

Peko, EZ and the AAEC, however, could at last now proceed to the next stage - an agreement with the NLC and the Mirrar-Gundjeihmi traditional owners. Although the ALRA had removed the right of veto, it did not exclude the need for a legal agreement on mining. After considerable pressure, meetings and extensive public debate, the Ranger Agreement was signed on 3 November 1978. In conjunction with this process, the statutory 'Environmental Requirements' (ER's) for the Ranger project were negotiated.

Thus, on 9 January 1979, the Commonwealth Government gave all formal legal approvals for the Ranger project to proceed using section 41 ('s41') of the *Atomic Energy Act* 1953 – and construction was underway within hours (though preparations had been building for some months). The s41 authority was to last for 21 years but could be renewed.

Later in 1979, the Fraser government divested itself of Ranger, leading to the formation of a new company called Energy Resources of Australia Ltd (ERA), with Peko-EZ holding about 30% each in ERA and the remainder being a mix of public and institutional investors. By the late 1980's resources company North Ltd had successfully taken over both Peko and EZ, and also bought the adjacent Jabiluka uranium deposit from Pancontinental Mining Ltd in 1991. North tried unsuccessfully to develop Jabiluka in the late 1990's, and were taken over by Rio Tinto Ltd in August 2000.

The Ranger project has been the subject of continuing controversy ever since the beginning, including the subject of several Parliamentary inquiries (eg. SSCUMM, 1997; SECITA, 2003). The remainder of this article will review specific legal issues for the Ranger project.

Ranger's Primary Legal Authority

As noted in the historical review, the Ranger uranium project was finally approved using the *Atomic Energy Act 1953* – creating what is termed by Gundjeihmi Aboriginal Corporation as the "statutory fiction". That is, under section 41 (2AA) of the act, the approval allows the joint venturers (ie. originally Peko-EZ-AAEC) to carry out operations on behalf of the Commonwealth. This 'fiction' was created to deal with the fact that, because the Ranger Project Area is on Aboriginal Land, and because the Ranger Project Area is dealt with separately and uniquely

under the ALRA, an agreement between the Commonwealth and the NLC was still required for mining operations to take place on the RPA.

Also, the *Atomic Energy Act 1953* was the draconian legislation passed by the Commonwealth in the early days of the Cold War, and was primarily intended for military purpose uranium projects such as Rum Jungle. The act was heavily amended specifically to address numerous complex legal issues with the Ranger uranium project. Attached to the section 41 authority was the Environmental Requirements negotiated during the ALRA Agreement for Ranger.

The s41 authority was renewed in January 2000 for a further 26 years, and included a completely new set of Environmental Requirements.

Office of the Supervising Scientist

As strenuously recommended by the Fox Inquiry, an agency within the federal Department of the Environment was established and called the Office of the Supervising Scientist (OSS). The head of the group, the Supervising Scientist, was to co-ordinate environmental research in the region and provide advice to the Commonwealth Minister of the Environment. The OSS is controlled by the *Environment Protection (Alligator Rivers Region) Act 1978.* Although it is a common perception that the OSS is the primary regulator for Ranger, it only acts as a source of advice to the Commonwealth Minister for the Environment, who in turn advises the Minster for Resources – who administers the *Atomic Energy Act.*

To support the OSS, the Act provides for two principal committees – the Alligator Rivers Region Advisory Committee (ARRAC) and the Alligator Rivers Region Technical Committee (ARRTC). ARRAC is the main public forum while ARRTC approves the research program of the OSS and ensures integration with the work done by ERA for Ranger.

Commonwealth-Northern Territory Statutory Framework

A major issue in regulating the Ranger project is that the Fraser government devolved day to day regulation to the Northern Territory Government. It could perhaps be argued that the Fox Inquiry did not trust the potential performance of the NT agencies to regulate a uranium mine on aboriginal land surrounded by a national park, but gave way to political reality, ensuring that the NT were handed most powers of relevance. As such, NT agencies such as the Department of Mines and Energy and Department of Water Resources were given key roles in regulating Ranger.

In addition, there has been a complex evolution of power-sharing arrangements between the Commonwealth and Northern Territory over the years. Although the Commonwealth retains perhaps the ultimate power through the s41 authority, most regulatory approvals are made on the basis of co-operation between the Commonwealth and Northern Territory. Over the years, as major environmental incidents have occurred at Ranger, a new letter would be exchanged promising better standards and co-operation, and occassionally leading to a quasi-formal agreement. In this regard, the most recent statement of co-operation is the 'Working Arrangements', which establishes a minesite technical committee (MTC) for Ranger (and other projects in the area), and specifies clear roles and responsibilites for all groups involved.

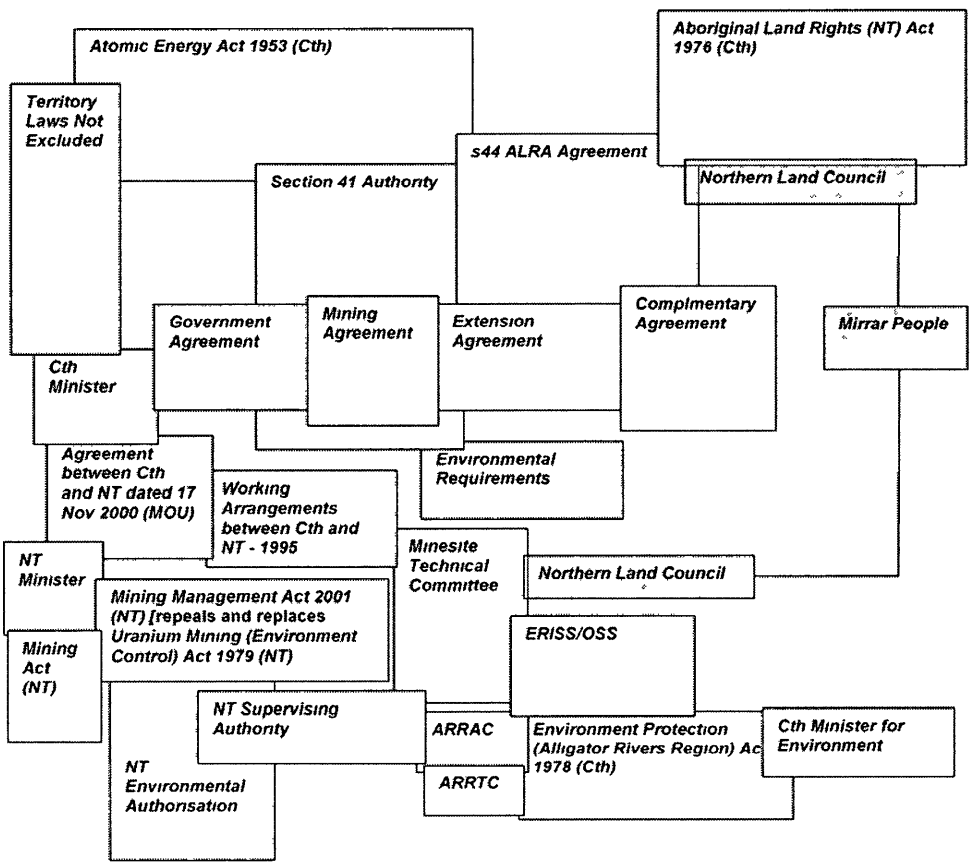
Indigenous Input

Under ALRA, the Mirarr own the land on which the Ranger project operates. Through the Northern Land Council, the Mirarr also have a voice on the MTC, ARRAC and ARRTC. Despite the

common belief that the Mirarr are directly involved in these various processes, they have never been able to play such a role – this role is performed by the NLC on their behalf. During the height of the Jabiluka campaign, this was problematic to say the least, as Mirarr were adamantly opposed to any development yet the NLC was effectively representing the position of the 1982 ALRA agreement supporting Jabiluka – a clear conflict of interest. Under ALRA, the NLC's primary statutory role is to represent the interests of traditional owners – not mining companies or government agendas. In recent years since about 2002, however, the relationship between the Mirarr (through their company Gundjeihmi Aboriginal Corporation) and the NLC has improved dramatically, with strong trust and outcomes being achieved. However, this current position is entirely due to the individuals involved – the Mirarr still have no legal 'seat' on the MTC, ARRAC or ARRTC despite the Ranger project being on their land. This demonstrates the problems in weakly formulated legal structures for regulating complex environmental projects in challenging social circumstances.

Discussion

Based on the preceding sections, the following diagram shows the overall complex map of the legal jurisdiction and framework applying to the Ranger uranium project (GAC, 2002):



The regulatory regime which has evolved for the Ranger project is certainly amongst the most complex for any mine in the world – but it is hard to accept that this makes sound regulation, especially given the environmental performance of the Ranger project over the past three decades. For instance, some of the major 'incidents' (the preferred term for accidents) include (eg. SSCUMM, 1997; SECITA, 2003):

- December 1995 – 12,000 litres of diesel was spilled into Retention Pond 2, leading to 40 water bird deaths. No fine was issued – despite the OSS saying this was an unacceptable impact.

- February 2002 – Incorrect stockpiling of low grade ore (LGO, or rock with uranium in it) had led to contaminated runoff entering Corridor Creek, on the southern side of Ranger, for some six weeks. In April 2002 it was revealed that LGO runoff had 13,785 µg/L of uranium and was again entering Corridor Creek. No fine or penalty was issued.

- March 2004 – Incorrect connections of water pipes in the Ranger mill sent highly contaminated process water cascading through the drinking water circuit, exposing some workers to extreme polluted waters and literally two hundred to a potentially contaminated water supply. ERA was taken to court by the Northern Territory – and was subsequently fined for the first time.

The long history of major 'incidents' at Ranger highlights the conflict of interest inherent in a government agency, such as the NT Department of Mines and Energy (DME, presently Department of Regional Development, Primary Industry, Fisheries and Resources or 'DRDPIFR'), which acts as both a promoter and regulator of mining. The fact that it took until the 2004 process water incident to force the NT to ensure ERA was fined further reinforces this view. Although the OSS has been very critical in the past concerning Ranger's environmental performace, it has never advised the Commonwealth Minister for the Environment to recommend to the Resources Minister to apply sanctions under the Atomic Energy Act – instead opting for ERA to implement measures to address the specific concerns. An independent, statutory Environmental Protection Authority is still being established in the NT, though environmental regulation of uranium mining is maintained by DRDPIFR – leaving regulation effectively as the status quo.

Perhaps the most primal issue rearing its head lately is that of rehabilitation. In 2003, the Ranger project was expected to finish mining by 2008 and milling by 2011. The recent huge rise in the uranium price from US$7/lb U_3O_8 in 2001 to around US$65/lb U_3O_8 in mid-2008 has seen the plans for the Ranger project completely re-written. As of September 2008, mining has been extended to 2012 with milling now to run until about 2020 (processing the considerable volume of lower grade ores). In addition, ERA are activel looking at a major expansion of Ranger, including the possibilities of an even bigger Pit #3, underground mining and heap leaching.

Despite the Mirrar engaging with ERA on the rehabilitation of the Ranger Project Area, this has been completely subsumed and delayed by the recent project extensions and current potential expansion studies. Given the importance of generational change in indigenous cultures, the current senior Mirarr had hoped to be able to take their children back to the RPA and walk that country with them after rehabilitation – an outcome now made virtually impossible. The fact remains that although the Mirarr own their land, they remain powerless to exercise effective control on projects such as Ranger. It seems almost a *fait accompli* now that ERA will seek yet another extension to their s41 authority to allow operations to expand and continue well beyond 2020.

The final and perhaps most poignant issue is that of social impacts. In the 1970's, Mirarr elders such as Toby Gangale and others opposed any mining on the grounds of the social impacts they expected when a mining town was built, royalty money flowed into the community combined with the availability of alcohol. At the start of the Jabiluka issue, it was revealed that heavy social impacts had, unfortunately, become a reality for indigenous people in the ARR (KRSIS, 1997). For

example, major issues included alcohol abuse, education, health and poor socio-economic status – despite 20 years of uranium mining. The approval of uranium mining in the region – against the will of the Mirarr – is often referred to as a 'social contract' between the government and Mirarr – a contract that has clearly not delivered its promised outcomes for indigenous people. Indeed, the senior Mirarr traditional owner, Yvonne Margarula, says that "The promises never last – but the problems always do" (Mudd et al., 2007). A major problem with social impacts is that this area has always been avoided by all agencies – the OSS is an environmental research and advisory group, the Northern Land Council receives significant funding from mining royalties, and Commonwealth and Northern Territory governments have always chosen to assume others would deal with social issues. The end result has been a major vacuum which has guaranteed that social impacts would continue to worsen over time – inevitably justifying the original opposition of Yvonne's father Toby.

Summary and Conclusions

The Ranger uranium project has had a complex evolution of legal requirements and approvals, including indigenous land rights, uranium mining, environmental regulation, Commonwealth-Northern Territory issues and national park concerns. At present, despite the plethora of acts, statutes, agreements and letters in place, the complex framework for Ranger does not permit the traditional owners, the Mirarr-Gundjeihmi, to exercise effective control over their land, nor does it ensure they can guarantee critical outcomes such as the closure date for Ranger. Overall, the Ranger project may be perceived by some as the world's most regulated mining project – but this hardly translates through to effective and meaningful outcomes for indigenous people nor sound long-term environmental performance. Perhaps the real test will come in a few hundred years when the rehabilitated Ranger project area has had the test of time – then we might be able to see the true effectiveness of the current legal regime.

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