CONSTITUTIONAL FRAMEWORK FOR REGULATION OF THE AUSTRALIAN URANIUM INDUSTRY

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An outline of the constitutional legal foundations for the present regulation of the Australian uranium industry and the potential for those constitutional foundations to authorise significant change to the current regulatory scheme.

1. INTRODUCTION

The purpose of this part is to outline the constitutional legal foundations for the present regulation of the Australian uranium industry and the potential for those constitutional foundations to authorise significant change to the current regulatory scheme. Such an outline is necessarily complex, given that the power to regulate the industry is divided between the Commonwealth, the States, and in so far as the Commonwealth permits, the Northern Territory.

This accounts for the complexity of the present legislative regime which controls the exploration, mining, processing, transport, sale and export of uranium in Australia. This paper considers the constitutional foundations for regulation in each of those areas of the industry. It concludes with the view that there is considerable scope for the Commonwealth to regulate the entire nuclear fuel cycle – except for one significant hurdle – State ownership of the uranium deposits within their territory. This means that the prospects for an efficient national regulatory scheme depend on federal, State and Territory co-operation.

To understand the uranium regulatory scheme, it is necessary first to have an appreciation of the various stages of the nuclear fuel cycle.

2. AUSTRALIA’S INVOLVEMENT IN THE NUCLEAR FUEL CYCLE

The nuclear fuel cycle describes the process by which uranium is mined from the ground, milled into uranium ore concentrate (U₃O₈), converted into uranium hexafluoride gas (UF₆), enriched to produce low-enriched uranium (LEU), and then transformed into another uranium oxide (UO₂) to be fabricated into nuclear reactor fuel rods. These rods are used to generate heat from a nuclear reaction which produces steam for electrical power generation. The resultant nuclear waste must then be cooled and safely stored.

Currently, Australia only engages in the mining and milling of uranium ore, and the disposal of low and medium grade waste. The conversion, enrichment and fabrication of Australian uranium ore occur overseas by a relatively small number of producers. Exports of Australian uranium are normally made direct to power utilities which then arrange for the conversion, enrichment and fabrication by overseas producers.

As at 2006, Australia has 38% of the known low cost uranium global reserves and produces 23% of global production. Uranium mining has been carried on spasmodically in Australia since the beginning of the 20th century. It first occurred at Radium Hill in South Australia before the First World War. Since then, it has only occurred during those periods when a commercially viable international market coincided with political support at both the federal and state level. Such a

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coincidence currently exists in only one State, South Australia, with political support for the
industry at the federal level under the Howard Government. An ALP Government may continue
this federal support, since dumping its previous policy against new uranium mines at its national
conference in April 2007.

Currently, there are only three operational mines: Olympic Dam (known also as Roxby Downs)
and Beverley both in South Australia and Ranger in the Northern Territory. A fourth mine,
Honeymoon, is anticipated to become operational in South Australia in 2008. There are other
uranium deposits suitable for mining in Queensland\(^1\) and Western Australia\(^2\) which are currently
prevented by the ALP State governments in both those States from becoming operational. Other
mines which have since closed include Mary Kathleen in Queensland and Rum Jungle, Naborlek
and South Alligator in the Northern Territory.

Before discussing the extent to which the nuclear fuel cycle can be regulated by government, it is
necessary to consider first who owns these uranium deposits.

### 3. Ownership of Uranium

As a general rule, all mineral deposits including uranium within each of the Australian States are
vested by State legislation in the Crown in right of each State. This is expressly declared in
Queensland\(^3\), South Australia\(^4\), Tasmania\(^5\), Victoria\(^6\) and Western Australia\(^7\), albeit subject to
historic prior grant in the case of the states of Queensland and Western Australia. In New South
Wales, the Crown has reserved all thorium deposits in land for which grants were issued since 17
March 1971, as well as all uranium deposits in land for which grants were issued since 22 June
1983.\(^8\) Significantly, the vesting of these mineral rights in State Crowns has extinguished any
prospect of native title rights in relation to uranium.\(^9\)

Similarly, the Commonwealth Parliament has declared as Commonwealth property all uranium in
its territories. This was declared by s 6 of the *Atomic Energy (Control of Materials) Act 1946* (Cth)
which was the first Commonwealth regulation of uranium in Australia, enacted in reliance on the
defence power (s 51(vi)), as well as the territories power in s 122. That Act was superseded by the
*Atomic Energy Act 1953* (Cth), s 35 of which declares as Commonwealth property all “prescribed
substances” in their natural condition or as a deposit of waste material in its Territories (including
its external territories) which was not Commonwealth property immediately before 11 September
1946 (the date of commencement of the 1946 Act). A “prescribed substance” is defined by s 5(1)

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1. At Ben Lomond, Valhalla and Westmoreland.
2. At Kintyre, Manyingee and Veelime.
3. *Mineral Resources Act 1989* (Qld) s 8(3) – declares all minerals as Crown property except for those
   found in land alienated in fee simple under s 22 *Alienation of Crown Lands Act 1860* (Qld), s 32 *Crown
   Lands Acquisition Act 1868* (Qld), and s 21 *Mineral Lands Act 1872* (Qld). And see *Wik Peoples v State
   of Queensland* (1996) 63 FCR 450; 134 ALR 637 where Drummond J discussed the complexities of the
   situation at length.
5. *Mineral Resources Development Act 1995* (Tas) s 6(4) – vests all “atomic substances…existing in a
   natural state on or below the surface of land” in the Crown.
7. *Mining Act 1978* (WA) s 9(1)(b) – declares all naturally existing minerals (apart from precious metals) to be
   Crown property except in land alienated in fee simple prior to 1 January 1899.
of the 1953 Act to mean: “(a) uranium, thorium, an element having an atomic number greater than 92 or any other substance declared by the regulations to be capable of being used for the production of atomic energy or for research into matters connected with atomic energy; and (b) any derivative or compound of a substance to which paragraph (a) applies.”

This means that the significant uranium deposits discovered in the Northern Territory belong to the Commonwealth Crown and are capable of statutory regulation under the territories power in s 122. Moreover, the Commonwealth retained this ownership and executive control over uranium when it granted self-government to the Territory in 1978 by reserving for itself ownership of all prescribed substances the subject of regulation under the Atomic Energy Act 1953 (Cth). The only mine currently operational in the Northern Territory is the Ranger uranium mine near Jabiru within the world heritage listed Kakadu National Park.

4. **STATES’ CAPACITY TO REGULATE**

It follows from State ownership of uranium deposits that the States clearly possess the constitutional authority to regulate all aspects of the nuclear fuel cycle occurring within their respective boundaries. This covers the exploration, mining, processing and sale of their own uranium deposits. This authority is derived from the general legislative power vested in all State Parliaments to enact laws for the peace, welfare (or order) and good government of their respective State. The States may prohibit or permit any stage of the nuclear fuel cycle on such terms and conditions as they fit. The only constraints on their power derive from valid inconsistent Commonwealth legislation (see below) and restrictions on their power from the Commonwealth Constitution, principally, the freedom of interstate trade, commerce and intercourse under s 92, and the prohibition on the imposition of customs and excise duties under s 90. The former invalidates laws which discriminate against interstate trade to protect competitive local trade. The latter prevents the States from imposing customs and excise duties.

5. **COMMONWEALTH’S CAPACITY TO REGULATE**

Unlike the States, the Commonwealth only possesses specific powers which do not expressly include mining or energy. Certain powers, however, provide some scope for regulating these industries, in particular, the corporations power in s 51(xx). In contrast, the position is unrestricted in relation the Commonwealth’s territories under the territories power in s 122 which is equivalent to the wide legislative power of the States. Nor is this power restricted by the granting of self-government to a territory. So when the Commonwealth granted self-government to the Northern Territory in 1978, it expressly retained Executive responsibility for “the mining of uranium or other prescribed substances within the meaning of the Atomic Energy Act 1953 (Cth) and regulations under that Act as in force from time to time.” Accordingly, the Commonwealth retains plenary power in the Northern Territory over all stages of the nuclear fuel cycle occurring within that territory.

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10 Section 69(4) Northern Territory (Self-Government) Act 1978 (Cth).
11 Constitution Act 1902 (NSW) s 5; Constitution of Queensland 2001 s 8 with Constitution Act 1867 (Qld) s 2; Constitution Act 1934 (SA) s 5 with Australian Constitutions Act 1850 (Imp) s 14; Tas by Australian Constitutions Act 1850 (Imp) s 14; Constitution Act 1975 (Vic) s 16; Constitution Act 1889 (WA) s 2.
Far more complex is the Commonwealth’s capacity to interfere with the States’ regulation of the nuclear fuel cycle within their boundaries. The Commonwealth must first rely on one or more of its specific legislative powers to regulate any part of that cycle, and then must ensure that its regulation does not violate any potential constitutional restriction on its powers, such as the Melbourne Corporation principle, which guarantees the continued existence of the States and their capacity to function as such.

The Commonwealth’s capacity to regulate the nuclear fuel cycle within the States varies in relation to each stage of that cycle. The Commonwealth cannot directly regulate the exploration, mining and processing of any mineral including uranium in a State unless there is a sufficient connection with one of its heads of legislative power. Potential heads of power are the powers in s 51 to make laws with respect to: para (i) interstate and overseas trade and commerce; para (vi) defence; para (xx) foreign, trading and financial corporations; and para (xxix) external affairs. The Commonwealth may also indirectly regulate uranium exploration, mining and processing through its taxation regime (s 51(ii)). There is, however, greater scope for direct Commonwealth regulation of the sale and transportation of uranium products from the States pursuant to the interstate and overseas trade and commerce power in s 51(i).

The circumstances in which each of these powers may be exercised to regulate various stages of the nuclear fuel cycle are now considered.

5.1 Interstate and Overseas Trade and Commerce Power

The interstate and overseas trade and commerce power in s 51(i) only empowers the Commonwealth to directly regulate activities occurring within a State if they are sufficiently connected to the movement of goods and services beyond that State into another State or overseas. The classic example of this capacity arose in O’Sullivan v Noarlunga14 where the High Court upheld the validity of Commonwealth regulations which regulated abattoirs but only in so far as they processed meat for export. In that case, the abattoirs concerned were designed only to produce meat products for the overseas trade. Fullagar J expressed the potential for Commonwealth regulation of the export trade in very wide terms:

By virtue of that power all matters which may affect beneficially or adversely the export trade of Australia in any commodity produced or manufactured in Australia must be the legitimate concern of the Commonwealth. Such matters include not only grade and quality of goods but packaging, get-up, description, labelling, handling, and anything at all that may reasonably be considered likely to affect an export market by developing it or impairing it. … It may very reasonably be thought necessary to go further back, and even to enter the factory or the field or the mine. How far back the Commonwealth may constitutionally go is a question which need not now be considered, and which must in any case depend on the particular circumstances attending the production or manufacture of particular commodities. But I would think it safe to say that the power of the Commonwealth extended to the supervision and control of all acts or processes which can be identified as being done or carried out for export.15

The picture is not as clear where it is unknown during the production process how much of its output will end up in overseas trade. But it seems likely that provided some part of the process is

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15 Ibid at 598.
intended for export, the Commonwealth should be able to regulate the entire process as this will be necessary to ensure that it regulates that part of the process which contributes to the export trade.\textsuperscript{16} It follows, with one significant reservation, that the Commonwealth is empowered by s 51(i) to promote and regulate the exploration, mining and processing of uranium within the States provided this is done for the purpose of exporting the uranium ore produced. Mines established exclusively for that purpose, like the abattoirs in \textit{Noarlunga}, fall clearly within Commonwealth control. The same applies where the uranium ore is to be sold interstate or to a territory. In the former case, the guarantee of freedom of interstate trade, commerce and intercourse under s 92 of the \textit{Commonwealth Constitution} is unlikely to be breached since any Commonwealth regulation of interstate trade in uranium is unlikely to protect intrastate trade in that commodity.\textsuperscript{17} All of this is subject to a significant obstacle – namely, that the uranium to be mined in any State belongs to the Crown in right of that State, that is, the State Government. Any Commonwealth law which authorised the mining of uranium, owned by a State Crown, for export would probably involve a compulsory acquisition of State property which would require the payment of “just terms” (ie fair compensation) in accordance with s 51(xxxi) of the \textit{Commonwealth Constitution}. Whether a Commonwealth law authorising the exploration of State land for uranium deposits for mining for export, attracts a similar obligation is more debateable. The impact of s 51(xxxi) is considered further below.

Despite these difficulties with the Commonwealth regulating exploration, mining and production of uranium under s 51(i), that head of power confers a plenary power over the export of uranium. The Commonwealth may permit or restrict the export of uranium on any conditions it thinks fit, since exportation lies at the core of the power over overseas trade. Accordingly, it may impose conditions on export which effectively regulate the exploration, mining and processing of uranium. In other words, a producer may be required to mine and process the ore in a particular manner to obtain an export permit. These principles were established by the High Court in \textit{Murphyores Incorporated Pty Ltd v The Commonwealth}\textsuperscript{18} which upheld the validity of the Commonwealth decision to subject the grant of an export permit for mineral sands to an environmental impact inquiry. The subsequent denial of an export permit saved Fraser Island from the proposed mining, although Murphyores remained legally entitled to undertake mining pursuant to the Queensland leases. Since that case, the capacity of the Commonwealth to protect the environment now derives principally from its external affairs power (s 51(xxix)) which is considered next.

### 5.2 External Affairs Power

The external affairs power in s 51(xxix) empowers the Commonwealth to enact legislation to give effect to any international legal obligations which the Australian Government has agreed to be bound by under international law. This usually occurs by ratifying an international treaty or convention.

There are numerous international treaties in relation to nuclear material. The most significant of these concern: the physical protection of nuclear material and facilities\textsuperscript{19}; the international transport of radioactive material\textsuperscript{20}; export controls over nuclear material, equipment, technology\textsuperscript{21};

\textsuperscript{16} See \textit{Swift Australian Co Pty Ltd v Boyd-Parkinson} (1962) 108 CLR 189 at 213, 220 and 226; \textit{Redfern v Dunlop Rubber Australia Ltd} (1964) 110 CLR 194.
\textsuperscript{17} \textit{Cole v Whitfield} (1988) 165 CLR 360.
\textsuperscript{18} (1976) 136 CLR 1.
\textsuperscript{19} Convention on the Physical Protection of Nuclear Material (CPPNM); see also the standards in the International Atomic Energy Agency (IAEA) Information Circular INFCIRC/225/REV.4.
\textsuperscript{20} IAEA Transport Regulations.
the non-proliferation of nuclear weapons, waste management standards and practices, and protection of the environment.

These treaties provide a wide basis for Commonwealth regulation, pursuant to its external affairs power in s 51(xxix), of those stages of the nuclear fuel cycle concerned with the effects of mining on the environment, transportation, export, and waste management. The Commonwealth has implemented its international obligations under various treaties by regulating the safe transport and safe disposal of nuclear material.

5.3 Corporations Power

Since the Work Choices case, the Commonwealth can clearly rely on its power with respect to foreign, trading and financial corporations under s 51(xx) to regulate all corporations engaged in any stage of the nuclear fuel cycle, that is, exploration, mining, processing, through to sale and export. All entities engaged in these activities will be either foreign or trading corporations (often referred to as constitutional corporations).

There remains, however, the significant impediment of State ownership of the mineral ore outlined above. The Commonwealth cannot authorise a constitutional corporation to mine uranium which the State refuses to permit – unless the Commonwealth effectively acquires the ore and pays fair compensation to the State under the compulsory acquisition power in s 51(xxxi). This obligation would not arise, however, if the reverse were the position, that is, the State wanted to promote uranium mining and the Commonwealth wanted to prohibit it. The Commonwealth could achieve this under s 51(xx) simply by prohibiting any constitutional corporation from mining uranium.

5.4 Defence

The defence power in s 51(vi) was the original power relied on by the Commonwealth to regulate nuclear material in Australia under the Atomic Energy (Control of Materials) Act 1946 (Cth). Under that Act the Minister was empowered, if it appeared to him to be “desirable in the interests of the defence of the Commonwealth”, to require from any person notification of any prescribed substance in one’s possession (s 8); to grant licences for the mining, acquiring, producing, treating, possessing, using, disposing, exporting or importing any prescribed substance (s 9); to authorise the entry on land to assess the existence of any prescribed substance (s 10); to take possession of any prescribed substance (s 11); and to compulsorily acquire any prescribed substance (s 12).

Constitutionally, the defence power is elastic in nature, since it expands and contracts according to the level of threat Australia is subject to. If Australia declares war, the power is at its widest, as it

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21 As a member of the Zangger Committee and the Nuclear Suppliers Group (NSG); parallel commitments under the South Pacific Nuclear Free Zone Treaty.
22 Treaty on the Non-Proliferation of Nuclear Weapons (NPT) including the safeguards of the IAEA in the Agreement between Australia and the IAEA for the Application of Safeguards in Connection with the NPT.
24 Convention on the Protection of Marine Pollution by Dumping of Waste and Other Matter and the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region.
25 See eg s 16 Nuclear Non-Proliferation (Safeguards) Act 1987 (Cth) implementing the Treaty on the Non-Proliferation of Nuclear Weapons and the Convention on the Physical Protection of Nuclear Material.
27 Defined to include uranium.
was during both World Wars, empowering the Commonwealth Parliament to delegate to the Governor-General authority to regulate every aspect of life in Australia so far as this was needed to defend the country. At a time of peace or relative peace, the defence power contracts considerably. Hence, any Commonwealth law which relies on the defence power at that time needs to have a clear connection with the purpose of defending Australia from both external and internal threats.\(^{28}\) It is clear that this purposive test would not support general Commonwealth regulation of all stages of the nuclear fuel cycle. For instance, it may support regulation to the extent that it protects nuclear material from being used to threaten the security of Australia, but it is less likely to support a Commonwealth law which protects the environment from the effects of nuclear mining or processing.

### 5.5 Commonwealth Capacity to Override State Authority

Could the Commonwealth force the States to permit the exploration and mining of uranium within their own jurisdiction? Yes – the scope of Commonwealth legislative power outlined above is sufficiently broad to support Commonwealth legislation which authorised those activities by a corporation, or for purposes of interstate or overseas trade and commerce. To that extent, the Commonwealth legislation would override the inconsistent State law by virtue of s 109 of the Constitution. However, such Commonwealth legislation would be challenged by the States on two grounds: the first, based on the compulsory acquisition power in s 51(xxxi), might succeed unless the Commonwealth provides the States with fair compensation; the second, based on the Melbourne Corporation principle, would probably not succeed.

The first ground for challenging a Commonwealth legislative regime which authorised uranium exploration and mining in a State would be successful if fair compensation is not provided to the State Government, as required by the compulsory acquisition power in s 51(xxxi) of the Constitution. For the Commonwealth to authorise the mining of a mineral owned by a State Crown clearly constitutes the compulsory acquisition of property by the Commonwealth for a Commonwealth purpose. If the Commonwealth law does not provide fair compensation to the State, it would be invalid. Fair compensation is usually the market value of the property acquired.\(^{29}\) The Commonwealth could argue that this value is the rate of royalty which the State has forgone by not authorising the mining of the uranium. If this is accepted by the High Court, it would mean that the Commonwealth could assume control of the mining of uranium in the States by simply transferring the royalties it receives to the State Crown concerned. Thereby the Commonwealth achieves its objective of overriding State opposition to uranium mining and provides by way of fair compensation to the State the royalties which the State would otherwise have derived had it permitted the mining itself.

For the Melbourne Corporation principle to be invoked successfully, the States would need to establish that Commonwealth regulation of the mining industry of a State constitutes “in a significant manner, a curtailment or interference with the exercise of state constitutional power”.\(^{30}\) This ground of challenge is most unlikely to succeed because the States’ power to regulate their mining industry will not be viewed as an essential constitutional function or capacity. A similar argument failed in Western Australia v Commonwealth (the Native Title Act case)\(^{31}\) in relation to the recognition by the Commonwealth of native title. It was argued by Western Australia that the impact of this native title regime impermissibly interfered with that State’s capacity to regulate its

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29 See Nelungalo v Commonwealth (1948) 75 CLR 495 at 507 per Williams J.
Crown land. The High Court rejected this argument on the basis that the State’s essential capacity to govern was not undermined. Similarly, regulation of a State’s uranium mining industry is most unlikely to be viewed by the High Court as an essential capacity of a State Government.

6. CO-OPERATIVE FEDERALISM

Given the breadth of the Commonwealth’s power (outlined earlier) to regulate all aspects of the nuclear fuel cycle, the Commonwealth may not need to rely on State co-operation. However, the Commonwealth may prefer for political reasons to rely on federal co-operation rather than brute power to develop a uniform national regulatory scheme.

There are various forms of co-operative federalism. Agreement may be reached with the States to enact parallel or complementary statutory schemes. Or else one or more States may refer their power to the Commonwealth to enable the latter to enact national legislation pursuant to s 51 (xxxvii) of the Commonwealth Constitution. This is called the reference power. A State power is usually referred to the Commonwealth for a specified number of years, and may be revoked by the referring States.32 One of the most prominent instances of the Commonwealth enacting national legislation pursuant to s 51(XXXVII) after the State referral of power is the Corporations Act 2001 (Cth) and the Australian Securities and Investments Commission Act 2001 (Cth).

Agreements between the Commonwealth and the States have been reached in relation to nuclear waste management, such as the National Directory on Radiation Protection and a Code of Practice and Safety Guide for Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing (2005).

7. CURRENT REGULATION

7.1 Exploration and Mining

7.1.1 State regulation of exploration and mining

South Australia33 is the only State which currently permits uranium mining. This occurs at Olympic Dam and Beverley. A third mine at Honeymoon is expected to receive final approval from the Commonwealth and South Australia to enable operations to begin in 2008.

The exploration and mining of uranium are specifically prohibited by statute in New South Wales34 and Victoria35.

In Queensland and Western Australia, exploration for uranium is permitted. Significant deposits have been found. While there is presently no statutory ban on the mining of uranium in those States, no uranium mining leases have been granted by the ALP governments in both those States as a matter of government policy. This policy is given effect in each State by provisions found in their respective mining Acts which empower the Minister to refuse an application for a mining lease on public interest grounds. Section 267(1)(b) of the Mineral Resources Act 1989 (Qld) simply authorises the Minister at any time to reject an application for a mining lease if “the Minister considers that it is not in the public interest for the mining lease to be granted.” Similarly, s 111A(1)(c) of the Mining Act 1978 (WA) authorises the Minister to refuse an application for a mining tenement if “the minister is satisfied on reasonable grounds in the public interest that (i) the land should not be disturbed, or (ii) the application should not be granted.” Any exercise of these

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33 Mining Act 1971 (SA).
34 Uranium Mining and Nuclear Facilities (Prohibitions) Act 1986 (NSW) s 7.
35 Nuclear Activities (Prohibitions) Act 1983 (Vic) s 5: also prohibits exploring and mining of thorium.
discretionary powers by a Minister in either State, made on the basis of ALP policy opposing uranium mining, would not appear to be open to legal challenge in judicial review proceedings. More specifically, all mining leases issued in Western Australia since 25 June 2002 include a clause which prohibits uranium mining.

Tasmania has no legislative ban on the exploration and mining of uranium – but unlike Queensland and Western Australia, it has no known commercial deposits of uranium.

7.1.2 Commonwealth regulation of exploration and mining

Currently, the Commonwealth does not regulate exploration for uranium outside its territories but it does purport to impose an obligation on any person who discovers uranium (ie a prescribed substance) “at any place in Australia” to report that discovery to the Commonwealth Minister by written notice within one month thereof: s 36(1) of the Atomic Energy Act 1953 (Cth). The constitutional basis for this obligation is not apparent from the Act. On its face, it lacks constitutional support for an unqualified operation. Such an obligation may validly be imposed under s 122 for discoveries made in the Territories, or if the discovery was made by a constitutional corporation within s 51(xx), or made for such purposes as defence within s 51(vi), or overseas or interstate trade and commerce within s 51(i). But, as an unqualified general obligation, s 36(1) purports to operate beyond Commonwealth power. No attempt has been made in the Act to confine s 36 within the scope of Commonwealth power.

The limits of Commonwealth legislative power are, however, recognised by s 34 of the Atomic Energy Act 1953 (Cth) but only in relation to any exercise of power conferred by the Act. Section 36 confers no power to be exercised as such, only an obligation on those who discover uranium. Powers are only conferred by s 37 which empowers the Minister to require persons to furnish statements as to any prescribed substances in their possession or under their control, and work performed in connexion with the production or use of a prescribed substance. Section 34 confines the exercise of this power for: (a) purposes of trade or commerce interstate and overseas (within s 51(i)) and (b) territorial (within s 122); (c) for purposes connected with the territories or the Ranger Project Area in the Northern Territory (also within s 122); and (d) for other undefined “purposes of the Commonwealth” except for defence. Since the Work Choices case, the Commonwealth could confidently add to this list, constitutional corporations under s 51(xx), as it has under the Environment Protection and Biodiversity Conservation Act 1999 (Cth). This technique of confining general provisions to specific purposes within Commonwealth power may in theory avoid constitutional invalidity, but it surely places administrators at times in a difficult position where they are required to determine each time whether their particular exercise of power actually falls within one of those constitutional purposes.

The Commonwealth directly regulates the mining of uranium in so far as it requires an environmental assessment before mining commences. Under ss 21 and 22 of the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act), particular entities are prohibited from taking “a nuclear action that has, will have or is likely to have a significant impact on the environment” – unless approval has been granted or dispensed with. A “nuclear action” is

36 Compare Re Minister for Resources; Ex parte Cazaly Iron Pty Ltd [2007] WASCA 175.
38 This obligation was originally imposed by s 7 of the Atomic Energy (Control of Materials) Act 1946 (Cth) which was described in its preamble as intended to provide for the defence of the Commonwealth.
40 There is a series of exceptions to this prohibition provided under s 21(4): (a) where approval has been given under Pt 9; (b) Pt 4 dispenses with the requirement of approval; (c) the Minister has dispensed
defined to mean, inter alia, “mining or milling uranium ore” (s 22(1)(d)). The restriction to particular entities under the EPBC Act reflects the Commonwealth’s limited legislative capacity: a constitutional corporation; the Commonwealth and its agencies; a person who undertakes these stages for the purposes of trade or commerce overseas, interstate, or with a Territory; and any person within a Territory. The application of this legislation to constitutional corporations effectively covers the entire uranium industry in Australia.

7.1.3 Mining in the Northern Territory

The Commonwealth reserved for itself, when it granted self-government to the Northern Territory in 1978, executive power over uranium mining in the territory. Legislative power over mining is still enjoyed by the Territory’s Legislative Assembly as part of its general legislative power. However, this is subject to paramount Commonwealth law under s 122, such as Pt III of the Atomic Energy Act 1953 (Cth) which empowers the Commonwealth Minister to authorise the mining of the Ranger Project Area in the Northern Territory.

Since 1979, there has been a series of intergovernmental agreements between the Commonwealth and the Northern Territory by which both Governments share responsibility for the environmental management of uranium mining in the Territory. The environmental impact of the uranium mining operations in the Alligator Rivers Region (including the Ranger Project Area) in the Northern Territory is the responsibility of the Supervising Scientist under the Environment Protection (Alligator Rivers Region) Act 1978 (Cth). Agreements are also in place with the Northern Land Council pursuant to the Aboriginal Land Rights (Northern Territory) Act 1976 (Cth) in relation to mining on traditional lands.

To conduct uranium mining in the Territory, the following approvals are required:

(i) A ministerial authorisation granted under s 35 of the Mining Management Act 2001 (NT) which requires compliance with a Mining Management Plan. Before issuing such an authorisation, the Minister must consult with the Commonwealth Minister who can veto the application or permit it subject to conditions (s 34).

(ii) A mineral lease under the Mining Act 1982 (NT), or in the case of Ranger, an authority under Pt III of the Atomic Energy Act 1953 (Cth).

(iii) A Commonwealth licence to export uranium under the Customs Act 1901 (Cth).

(iv) Approval to export from the Commonwealth Minister for the Environment under the Environment Protection and Biodiversity Conservation Act 1999 (Cth).

Any uranium mining in the States would also have to obtain the last two of these approvals.

with approval under Div 2, Pt 7; or (d) the action has been the subject of a special environmental assessment process under s 160(2).

41 Defined as a s 51(xx) corporation: s 528.
42 Section 21(2)(a)-(d).
43 Section 21(3).
44 Regulation 4(2) Northern Territory (Self-Government) Regulations (Cth).
45 Section 6 Northern Territory (Self-Government) Act 1978 (Cth).
46 Section 5(1) adopts the description given in Sched 2 of the Aboriginal Land Rights (Northern Territory) Act 1976 (Cth).
47 See the Report of the Senate Environment, Communications, Information Technology and the Arts References Committee, October 2003, at para 1.15.
48 Ibid at para 1.23.
7.2 Export

Under the *Customs Act 1901* (Cth), a uranium mine operator must have a licence to export uranium.\(^{49}\) Before a licence is issued, export approval must have been approved under the EPBC Act. It has been suggested that four States (New South Wales, Queensland, Victoria and Western Australia) have refused permission to allow the export of uranium through their ports.\(^{50}\) If this is so, the Commonwealth has clear legislative power under its interstate and overseas trade and commerce power s 51(i) to override this State opposition.

7.3 Milling, Conversion, Enrichment, Fabrication

By virtue of their general legislative power, each State Parliament can prohibit or permit the processing of uranium ore, whether this be: milling, conversion into UF\(_6\), enrichment into UO\(_2\), or fabrication into fuel rods. Except for milling, none of these stages of the nuclear fuel cycle currently occurs in Australia. All of these stages are statutorily prohibited in Victoria\(^{51}\) and New South Wales except that the New South Wales provision omits to ban milling.\(^{52}\)

While there are no statutory prohibitions in the other States, the Commonwealth has effectively prohibited these processing stages. Under ss 21 and 22 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) particular entities are prohibited from undertaking any of these “nuclear actions” without approval, “if [they are] likely to have a significant impact on the environment”:

(a) establishing or significantly modifying a nuclear installation\(^{53}\);
(b) transporting spent nuclear fuel or radioactive waste products arising from reprocessing;
(c) establishing or significantly modifying a facility for storing radioactive waste products arising from reprocessing;
(d) mining or milling uranium ore;
(e) establishing or significantly modifying a large-scale disposal facility for radioactive waste;
(f) de-commissioning or rehabilitating any facility or area in which an activity described in paragraph (a), (b), (c), (d) or (e) has been undertaken;
(g) any other action prescribed by the regulations.

More significantly, s 146M of the EPBC Act prevents any ministerial approval from being given for the construction or operation of (a) a nuclear fuel fabrication plant, (b) a nuclear power plant, (c) an enrichment plant or (d) a reprocessing plant. The restriction to particular entities reflects the Commonwealth’s limited legislative capacity to regulate a constitutional corporation,\(^{54}\) the Commonwealth and its agencies, a person who undertakes these stages for the purposes of trade or commerce overseas, interstate, or with a Territory,\(^{55}\) and any person within a Territory.\(^{56}\) As noted

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\(^{49}\) Regulation 9 *Customs (Prohibited Exports) Regulations 1958* – Sched 7, made under s 112 *Customs Act 1901* (Cth).


\(^{51}\) *Nuclear Activities (Prohibitions) Act 1983* (Vic) s 8.

\(^{52}\) *Uranium Mining and Nuclear Facilities (Prohibitions) Act 1986* (NSW) s 8.

\(^{53}\) A “nuclear installation” is defined by s 22(1) to include a nuclear reactor, and facilities for nuclear fuel storage, waste disposal, and production of radioisotopes.

\(^{54}\) Defined as a s 51(xx) corporation: s 528.

\(^{55}\) Section 21(2)(a)-(d).
earlier, the Commonwealth could effectively enact such a nationwide ban on processing nuclear material, pursuant to its corporations power in s 51(xx), by simply prohibiting corporations from participating in any stage of the nuclear fuel cycle.

Interestingly, despite the plethora of international treaties on the protection of the environment from nuclear activities to which Australia is a party, ss 21 and 22 of the EPBC Act do not purport to implement these international obligations in exercise of the external affairs power (s 51(xxix)).

7.4 Transportation

Under s 16 of the Nuclear Non-Proliferation (Safeguards) Act 1987 (Cth), a permit is required from the Australian Safeguards and Non-Proliferation Office (ASNO) to transport nuclear material anywhere in Australia. The Commonwealth appears to have the constitutional power under its external affairs power (s 51(xxix)) to prescribe this requirement on the basis that it gives effect to its environmental safety obligations under a series of conventions cited in the objects of the Act in s 3, principally: the Treaty on the Non-Proliferation of Nuclear Weapons and the Convention on the Physical Protection of Nuclear Material.

According to the Report of the Review of Uranium Mining Processing and Nuclear Energy in Australia, all States and Territories (except Victoria) have adopted the Code of Practice of Radioactive Material (2001), but “there is inconsistency in the application of uranium transport standards across jurisdictions and there is regulation in force that exceeds the standards specified in the Code, without improved health and safety outcomes”.

7.5 Radioactive Waste Management

Radioactive waste is generated in Australia from uranium mining and the use of radionuclides in research, medicine and industry. Three national codes regulate radioactive waste management. There are statutory protections in place in the Australian States and Territories in relation to radiation.

The construction and operation of a nuclear waste storage facility is prohibited by statute in South Australia, Western Australia and the Northern Territory. These prohibitions fall clearly within their respective legislative power. Both South Australia and the Northern Territory also prohibit the importation of nuclear waste into their respective territory for delivery to such a facility. While the South Australia ban might be challenged under s 92 of the Commonwealth Constitution for infringing the freedom of interstate trade, such a challenge is unlikely to succeed if the ban is not protectionist of any local trade, or even if it were, it was justified as reasonably appropriate for the protection of the environment. If the waste were to come from the Northern Territory, s 92 would not be relevant as the trade is not interstate, but the same freedom is provided by s 49 of the

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Section 21(3).
Department of the Prime Minister and Cabinet, 2006, para 9.2.2.
Ibid at para 9.2.3.
Radiation Control Act 1990 (NSW); Radiation Safety Act 1999 (Qld); Radiation Protection and Control Act 2004 (SA); Radiation Control Act 1977 (Tas); Radiation Safety Act 1975 (WA); Radiation Act 2005 (Vic); Radiation Act 1983 (ACT); Radiation Protection Act 2004 (NT).
Nuclear Waste Transport, Storage and Disposal Prohibition Act 2004 (NT) s 7.
Northern Territory (Self-Government) Act 1978 (Cth). As Commonwealth law, this statutory freedom overrides any inconsistent State or Northern Territory law.

The Commonwealth, however, has recently been intent on establishing a radioactive waste dump. In 2004, it tried to compulsorily acquire66 a site at Woomera in South Australia. This was defeated on a legal technicality in the Federal Court.67 So the Commonwealth then focused on the Northern Territory – a much easier option given the width of its territories power under s 122 which enables it to override the Territory’s statutory bans on a nuclear waste facility and the importation of waste to such a facility. In 2005, the Commonwealth enacted the Commonwealth Radioactive Waste Management Act 2005 (Cth) to authorise the establishment of a radioactive waste dump in the Territory. The Commonwealth Minister is empowered by s 7 to select a site in the Northern Territory from three possible sites (Mt Everard, Harts Range or Fishers Ridge) or such other site nominated by the Chief Minister of the Territory or by a Land Council. While the Act provides for fair compensation68 for any acquisition of property (Part 5), it expressly overrides any native title rights under the Native Title Act 1993 (Cth) (ss 9 and 10).

Were a radioactive waste dump to be built by the Commonwealth within a State, the Commonwealth would need to establish under s 51(xxxi) that this falls within one of its specific legislative powers in order to compulsorily acquire the site. The obvious power for the Commonwealth to rely on is the external affairs power in s 51(xxix) to implement its international obligations in relation to nuclear waste, such as, under the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

Could a State then prevent deliveries of radioactive waste to a dump located in that State? South Australia currently purports to prohibit this. As noted above, that seems constitutionally feasible. However, the Commonwealth would probably try to trump that ban under s 109 by enacting its own legislation to authorise the delivery to the dump irrespective of State law. Such Commonwealth legislation needs to rely on a head of power. And it would probably rely on the same power as that upon which it established the dump and acquired the site. If the dump were located in the Northern Territory, no comparable difficulty arises, since any State or Territory law which purported to ban the delivery of nuclear waste to a Territory dump could simply be overridden by a Commonwealth law made under its territories power in s 122.

7.6 Nuclear Power Generation

While the States could directly regulate the generation of nuclear power within their respective boundaries, the Commonwealth must rely on its specific powers outlined above to do so. Here again the corporations power in s 51(xx) gives the Commonwealth the capacity to regulate any corporations engaged in nuclear power generation. No constraints apply to the Commonwealth under s 122 if the power generation occurs in one of its territories.

Currently, the Commonwealth prohibits the establishment of a nuclear facility without a permit under ss 16A and 28A of the Nuclear Non-Proliferation (Safeguards) Act 1987 (Cth). Such a permit is only issued if the Minister is satisfied that the facility complies with the Australian safeguards system established under that Act. However, the establishment of nuclear power and processing plants cannot be approved under both the Environment Protection and Biodiversity

66 Pursuant to the Land Acquisition Act 1989 (Cth).
68 The Commonwealth is presently obliged to pay fair compensation for the compulsory acquisition of property in the Northern Territory by s 50(2) of the Northern Territory (Self-Government) Act 1978 (Cth), although not by s 51(xxxi): Teori Tau v The Commonwealth (1969) 119 CLR 564; Newcrest Mining (WA) Ltd v The Commonwealth (1997) 190 CLR 513.
Conservation Act 1999 (Cth)\(^69\) and the Australian Radiation Protection and Nuclear Safety Act 1998 (Cth).\(^70\) Both Acts prevent approval from being given under their respective provisions for the construction or operation of (a) a nuclear fuel fabrication plant, (b) a nuclear power plant, (c) an enrichment plant, or (d) a reprocessing plant.

8. CONCLUSION

It is evident from the division of powers between the Commonwealth and the States that Commonwealth support is essential for the Australian uranium industry. As history demonstrates, unless the Commonwealth approves the export of uranium, the industry is dead. On the other hand, Commonwealth approval does not guarantee exports since the States are capable of prohibiting the mining of uranium within their boundaries. The only way a State ban on uranium mining can be legally overcome is for the Commonwealth to compulsorily acquire the ore from a State but this requires the payment of fair compensation. If that is calculated at the rate of royalty which the State might otherwise have derived if it had permitted mining, such a Commonwealth move may be constitutionally feasible.

Not only can the Commonwealth, the States and the Northern Territory regulate the nuclear fuel cycle within the scope of their respective legislative power, but they can also engage themselves in the business of exploration, mining and processing of uranium. Each of their Executive Governments is empowered to undertake business enterprises like any other legal entity.\(^71\) The Commonwealth did so in the early days of the Australian uranium industry through the Australian Atomic Energy Commission\(^72\) which developed the Ranger mine until its interest was sold in 1980. It is unlikely now that any Australia government would undertake itself the mining of uranium or its processing.

The Report\(^73\) of the Review of Uranium Mining Processing and Nuclear Energy in Australia recently recommended the harmonisation of Australia’s regulatory regime for uranium mining. It noted overlaps in responsibilities even between the Commonwealth’s own bodies, Australian Safeguards and Non-Proliferation Office\(^74\) (ASNO) and the Australian Radiation Protection and Nuclear Safety Authority\(^75\) (ARPANSA). It recommended that a national regulator be established by the Commonwealth, the States and the Territories, to regulate nuclear fuel cycle activities. Here lies another opportunity for co-operative federalism.

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\(^69\) Section 146M.
\(^70\) Section 10(1).
\(^72\) Established under the Atomic Energy Act 1953 (Cth).
\(^73\) Department of the Prime Minister and Cabinet, 2006, paras 9.4 and 9.5.
\(^74\) See Nuclear Non-Proliferation (Safeguards) Act 1987 (Cth).
\(^75\) See Australian Radiation Protection and Nuclear Safety Act 1998 (Cth).