IMPORTATION AND TRANSPORTATION OF RADIOACTIVE SUBSTANCES IN WESTERN AUSTRALIA: AN OVERVIEW

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This article provides an overview of the regulatory regime applicable to the importation and transportation of radioactive substances in Western Australia, which comprises a mixture of Commonwealth and State legislation, and is similar in many respects to the regimes in other Australian States and Territories. Radioactive substances are used for a wide range of industrial, medical and research purposes. In addition to their use in the nuclear fuel cycle, they are often used in the mining and petroleum industries to locate and quantify oil, natural gas and mineral deposits and map geological contours. There has been increasing regulatory and media scrutiny regarding the security and safe transportation of radioactive substances and other dangerous goods in Australia for public health and national security reasons. If the current Western Australian government policy in relation to uranium mining and nuclear energy changes, it is likely that the regulatory issues relating to the transportation of radioactive material would become increasingly important.

1. INTRODUCTION

This article provides an overview of the regulatory regime applicable to the importation and transportation of radioactive substances in Western Australia, in particular:

- requirements for the importation and transportation of radioactive substances into Western Australia (see Part 2);
- requirements for transportation of radioactive substances within Western Australia (see Part 3);
- storage requirements during transit (see Part 4);
- reporting obligations (see Part 5);
- licensing and registration considerations (see Part 6); and
- future developments which may affect the current regulatory regime (see Part 7).

The regime is a mixture of Commonwealth and State legislation. Importation and transportation of radioactive substances from overseas or interstate is primarily regulated under Commonwealth legislation. Transportation within Western Australia is primarily regulated under State legislation, which essentially adopts the national *Code of Practice for the Safe Transport of Radioactive*

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This paper is a general overview and is not intended as legal advice. It does not address importation and transportation requirements for any other dangerous goods nor any other legal issues that may affect an importer or transporter of radioactive substances in Western Australia. No reader should act on the basis of this article without first obtaining specific legal advice.

Materials (2001) (Transport Code),[1] which in turn adopts international standards. Although most States have also essentially adopted the Transport Code, this paper focuses on the Western Australian requirements.

While it is currently Western Australian Government policy to prohibit uranium mining, if this policy changes, the current regime for transportation of radioactive substances could apply to the transportation of uranium ore, concentrates and other products in Western Australia, given the scope of the existing legislation. Whether or not legislation specifically dealing with transportation of uranium should be enacted would be a matter for government policy. However, it has been suggested that the requirements of the Transport Code would be sufficient to regulate transportation of uranium.[2] In South Australia, for example, where uranium mining is currently permitted, the transportation of uranium and other radioactive material is governed by regulations which essentially adopt the Transport Code.[3]

2. IMPORTATION AND TRANSPORTATION INTO WESTERN AUSTRALIA

2.1 Customs Requirements

The Commonwealth government classifies radioactive substances as restricted imports.[4] The importation of radioactive substances is regulated by the *Customs Act 1901* (Cth) (Customs Act) and the *Customs (Prohibited Imports) Regulations 1956* (Cth) (Import Regulations). In practice, many companies will employ a licensed customs broker to deal with customs importation requirements relating to radioactive substances. Following is a summary of the key regulatory requirements:

Permission to import – The importation of a radioactive substance into Australia is prohibited unless the relevant Minister[5] or the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) has given permission to import the substance.[6] The permission must be presented to the Australian Customs Service (ACS) before importation,[7] and may specify conditions or requirements which apply either before or after importation. It is an offence under the Customs Act to contravene a condition or requirement of an importation permit.[8] The relevant Minister may revoke a permit if the holder does not comply with the permit conditions.[9]

Import declaration – Before or on arrival of a radioactive substance in Australia, the substance must be entered for domestic consumption or warehousing in a licensed customs warehouse by completion of an import declaration.[10] Radioactive and other dangerous goods are normally dealt with by the ACS as a matter of priority. A customs officer will inspect the goods, review the airway bill, invoice and import declaration to verify that the goods match the description on the import declaration.

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1 Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), Radiation Protection Series No 2, *Code of Practice for the Safe Transport of Radioactive Materials*, 2001.
2 See Part 7 below.
3 *Radiation Protection and Control (Transport of Radioactive Substances) Regulations 2003* (SA).
4 Import Regulations, reg 4R.
5 The relevant Minister is currently the Commonwealth Minister for Health and Ageing.
6 Import Regulations, reg 4R(2)(a) and the Customs Act, s 71A.
7 Import Regulations, reg 4R(2)(b).
8 Customs Act, reg 50(4).
9 Import Regulations, reg 4R(6).
10 Customs Act, ss 68(2), 68(3) and 71A.

Import declaration advice and charges – In response to the import declaration, the ACS will authorise the goods to be cleared for domestic consumption or warehousing advice (as applicable).[11] The goods will then be released from ACS's control, subject to payment of any applicable fees, duty, taxes or other charges.[12]

2.2 Importation and Transportation by Air

The *Civil Aviation Act 1988* (Cth) (CA Act) and the *Civil Aviation Safety Regulations 1998* (Cth) (CAS Regs) regulate the transportation of dangerous goods by air throughout Australia. Radioactive substances are classified as Class 7 dangerous goods for the purposes of this legislation.[13] Following is a summary of the key regulatory requirements:

Civil Aviation Safety Authority (CASA) approval – The consignor of a radioactive substance must obtain written permission from CASA before consigning the substance for carriage on an aircraft entering Australia.[14]

Consignor's declaration – Generally, a person who, from inside Australia, consigns cargo for carriage on board an aircraft[15] is required to make and sign a written declaration that states the cargo does not contain dangerous goods or describes the contents of the cargo.[16] This declaration is also required in circumstances where there is a possibility that the cargo may during its journey be carried on an aircraft.[17]

Conditions of carriage – The consignor of a radioactive substance must comply with the requirements of the CAS Regs relevant to consignment for carriage by air of dangerous goods[18] and otherwise comply with the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Technical Instructions) which are usually revised and reissued annually.

The CAS Regs and the Technical Instructions impose conditions on consignors, aircraft operators, passengers and crew in relation to various matters such as loading, separation, labelling of dangerous goods, acceptance procedures, training, documentation and provision of information. Although the CAS Regs require compliance with the Technical Instructions, general industry practice is to follow the International Air Transport Association Dangerous Goods Regulations (IATA Regs), which are issued more frequently than the Technical Instructions. The requirements of the IATA Regs are normally the same as, or more stringent than, the requirements of the Technical Instructions. Thus, compliance with the IATA Regs will usually result in compliance with the Technical Instructions.[19]

2.3 Importation and Transportation by Sea

The *Navigation Act 1912* (Cth) (Navigation Act) regulates the transportation of dangerous goods into Western Australia from overseas or interstate by sea. Part 41 of the Marine Orders issued pursuant to the Navigation Act (Marine Orders) contains provisions governing the carriage of dangerous goods, including radioactive substances, by sea, and incorporates parts of the

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11 Customs Act, ss 71C and 71DJ.
12 Customs Act, ss 71B and 71BA and the *Customs Tariff Act 1995* (Cth), Ch 28.
13 CAS Regs, Part 92.015, defines "dangerous goods" for the purposes of the CA Act as those goods specified in the Dangerous Goods List contained in the Technical Instructions.
14 CA Act, s 23(2)(b).
15 This also applies to a freight forwarder that does so in the ordinary course of business.
16 CAS Regs, Part 92.070(1) and the CA Act, s 23A.
17 CAS Regs, Part 92.070(2).
18 CAS Regs, Part 92.035.
19 CAS Regs, Part 92.010(1).

International Maritime Dangerous Goods Code (IMDG Code), the International Convention for the Safety of Life at Sea (SOLAS) and the International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Waste on Board Ships (INF Code). The regulatory authority responsible for administration of the Navigation Act is the Australian Maritime Safety Authority (AMSA). Following is a summary of the key regulatory requirements:

Notice of intention to ship – Before any dangerous goods are shipped, the shipper[20] must complete a "Multimodal Dangerous Goods Form" (MDG Form) and provide it to the master of the ship.[21] However, if a radioactive substance is to be consolidated in a cargo transport unit, the originating shipper[22] must provide a copy of the MDG Form to the consolidator and master, and the consolidator must provide an MDG Form to the master. The MDG Form must be sent as soon as practical after arrival of the ship at the port of shipment, before the goods are loaded onto the ship.[23] The master of the ship must then provide a special list or manifest to the surveyor-in-charge[24] (generally referred to as the "Dangerous Goods Manifest") relating to the goods to be loaded onto the ship.[25]

Packaging requirements – The IMDG Code sets out the requirements for packing, marking, labelling and stowage of dangerous goods with particular reference to the segregation of incompatible substances. Packaging requirements for radioactive substances will vary depending on the activity level of the relevant substances. Packages must satisfy the physical testing requirements set out in Part 6 of the IMDG Code [26] and be approved by the "Manager, Ship Inspections" at AMSA or their authorised delegate (Manager).

Surveyor's verification – A surveyor[27] must verify that radioactive substances are safely stowed and secured in a manner appropriate to the radioactive hazard presented by the cargo, as determined by the Manager.[28]

2.4 Notification Requirements for Sellers and Purchasers

The *Radiation Safety Act 1975* (WA) (RSA) imposes notification requirements on sellers and purchasers of radioactive substances in Western Australia. A person who purchases a radioactive substance intended for use in Western Australia from outside of Western Australia must promptly notify the Radiological Council of Western Australia (Radiological Council) in writing.[29] A person who sells any radioactive substance in Western Australia must require the purchaser to produce evidence that they hold a licence or exemption under the RSA, and must notify the

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20 Marine Orders, Part 2: "shipper" means any person, organisation or government which prepares a consignment for transport and, in the case of dangerous goods shipped by cargo transport unit in less than full cargo transport unit load, includes the consolidator of those goods.

21 Marine Orders, Part 8. The MDG Form is set out in the IMDG Code and is available from AMSA.

22 Marine Orders, Part 2: "originating shipper" means any person, organisation or government which prepares a consignment of dangerous goods to be shipped by a consolidator in a cargo transport unit.

23 Marine Orders, Part 8.1.2-8.1.3.

24 Marine Orders, Part 2: "surveyor-in-charge" essentially means a surveyor in charge of the marine survey office of AMSA nearest to the relevant port.

25 A Dangerous Goods Manifest is set out in the Appendix to the Supplement to the IMDG Code.

26 Packages must be able to satisfy a range of different tests, such as impact, percussion, bending, heating and leaching tests.

27 Marine Orders, Part 2: "surveyor" means a person appointed to be a surveyor under the Navigation Act.

28 Marine Orders, Appendix, Part 7.3.

29 RSA, s 29(2).

Radiological Council in writing of the name and address of the purchaser and details of the relevant licence or exemption.[30]

3. TRANSPORTATION WITHIN WESTERN AUSTRALIA

The transportation of radioactive substances in Western Australia must be carried out in accordance with the RSA, the *Radiation Safety (Transport of Radioactive Substances) Regulations 2002* (WA) (RST Regs) and the *Radiation Safety (General) Regulations 1983* (WA) (RSG Regs).[31] The RST Regs adopt, for the most part, the Transport Code,[32] which incorporates many of the requirements contained in the *International Atomic Energy Agency Regulations for the Safe Transport of Radioactive Materials (1996)* (International Regulations).[33] The International Regulations contain detailed requirements regarding packaging, labelling, transportation and documentation for certain radioactive materials[34]. Following is a summary of the key regulatory requirements.

Radiation safety licence – A person who transports, operates, uses or possesses a radioactive substance must have a licence under the RSA (radiation safety licence) or an appropriate exemption.[35] Both consignors and transporters will need to hold a radiation safety licence. Radiation safety licences are issued by the Radiological Council, which is responsible for the administration of the RSA and reports to the relevant Minister.[36] Licences and exemptions under the RSA cannot be transferred.[37] The Radiological Council may vary the conditions of a radiation safety licence and impose additional conditions as it sees fit.[38]

Certificate of approval from a competent authority – Under the Transport Code, certain shipments of radioactive substances[39] and certain package designs for radioactive substances[40]

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30 RSA, s 29(1).

31 Although radioactive substances are classified as Class 7 dangerous goods for the purposes of the *Dangerous Goods (Transport) Act 1998* (WA) and the *Explosives and Dangerous Goods Act 1961* (WA), radioactive substances are expressly excluded from the operation of the principal regulations under this legislation,[31] which contain most of the specific regulatory requirements for transportation and storage of dangerous goods. The legislative intention is that radioactive substances are to be primarily regulated under the RSA, the RST Regs and the RSG Regs. We note that general offences regarding safe handling of dangerous goods under the *Dangerous Goods (Transport) Act 1998* (WA) and the *Explosives and Dangerous Goods Act 1961* (WA) still apply to radioactive substances. Failure to comply with the requirements under the RST Regs or the RSG Regs are likely to give rise to breaches of these general offences.

32 RST Regs, reg 4-6. The Transport Code applies to the transportation of radioactive material by road, rail or waterways (other than those subject to the Navigation Act), whilst transportation by air is covered by the CA Act.

33 The International Regulations are set out in Schedule A of the Transport Code. The provisions of the International Regulations which consignors and carriers must comply with are specified in clauses 2.8 and 2.9 of the Transport Code.

34 International Regulations, para 236 and 401-406. A wide range of radioactive materials are listed, including various uranium and plutonium radionuclides. There are also specific packaging requirements under the International Regulations for fissile material and uranium hexafluoride.

35 RSA, s 25.

36 The relevant Western Australian Minister is currently the Minister for Health.

37 See the licensing information available from the Radiological Council.

38 RSA, s 36(2).

39 International Regulations, para 802.

40 International Regulations, para 804.

require a certificate of approval from a competent authority (Approval Certificate).[41] The competent authority for the Commonwealth of Australia is ARPANSA. The competent authority in Western Australia is the Radiological Council. If an Approval Certificate is required, it is the consignor's responsibility to obtain it. An Approval Certificate usually specifies conditions of carriage appropriate for a radioactive consignment.

Competent authority notification – If the shipment of a radioactive substance requires competent authority approval, the consignor must, in addition to first obtaining the required Approval Certificate, notify the competent authority of each country through which or into which the consignment is to be transported prior to the commencement of the shipment.[42] This notification must include sufficient information to enable the identification of the relevant packages, the date of shipment, expected arrival and delivery route, descriptions of the radioactive materials and the maximum activity level of the contents during transport.

If a package design for a radioactive substance requires competent authority approval, the applicable Approval Certificate must be submitted to the competent authority of each country through which or into which the consignment is to be transported before first shipment of the package.[43] The consignor does not have to wait for an acknowledgement from the relevant competent authority, nor is the competent authority required to provide an acknowledgement receipt of the Approval Certificate.[44]

For transportation within Western Australia, either ARPANSA or the Radiological Council will be the relevant competent authority for notification or submission purposes.

Shipper's declaration – A consignor of radioactive substances within Western Australia must complete and include with the transport documents a shipper's declaration specifying certain prescribed information regarding the consignment.[45] The declaration must contain a statement from the consignor to the effect that the contents of the consignment are fully and accurately described and are classified, packed, marked and labelled, and are in all respects in proper condition for transport according to the applicable international and national government regulations.[46] As a matter of practice, the carrier of a radioactive consignment should receive this declaration prior to accepting the consignment and sight the relevant Approval Certificate prior to loading or unloading the goods.[47]

Conditions of carriage – The International Regulations impose various requirements in relation to the transportation, labelling, placarding, packaging and in-transit storage of radioactive substances.[48] Obligations are imposed on both carriers and consignors. A carrier of radioactive material must prepare a radiation protection programme in accordance with the guidelines set out in section III para 301 of the International Regulations, and submit the program to the Radiological Council for approval.[49]

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41 RST Regs, reg 4 and the International Regulations, para 556-561, 820-823 and 827.

42 International Regulations, para 558. Preferably, the notification should be made at least seven days in advance.

43 International Regulations, para 557.

44 International Regulations, para 557.

45 RST Regs, reg 4 and the International Regulations, para 549-555. This information includes information in relation to supplementary loading, stowage, carriage, handling and loading requirements, restrictions on modes of transport, and emergency arrangements.

46 The standard declaration form is available from the Radiological Council.

47 International Regulations, para 556.

48 RST Regs, reg 4 and the International Regulations, Part V, particularly para 562-578.

49 RST Regs, reg 5.

4. STORAGE IN WESTERN AUSTRALIA

Radioactive substances will often need to be temporarily stored during transit between destinations as well as before, during and after use.[50] The key regulatory requirements for storage of radioactive substances within Western Australia are set out in the RSA and the RSG Regs. These are as follows.

Radiation safety licence – A person who stores or possesses any radioactive substance must hold an appropriate radiation safety licence.[51]

Premises registration approval – A person who becomes the owner of any premises in which a radioactive substance is stored must apply to the Radiological Council for registration of the premises within 14 days.[52] A registration usually remains in force for between 12 months and three years, unless it is suspended or revoked.[53] The Radiological Council may impose conditions on the registration of premises,[54] and must be satisfied in relation to a range of factors before they will approve registration of any premises.[55] The conditions of registration may prescribe the maximum quantities of radioactive substances that can be stored, the specific safety equipment to be provided at the premises, and the type of radiation gauges that may be used.[56]

Registrant responsibilities – The person in whose name the premises are registered is responsible for compliance with the conditions of registration. Registrants are also responsible for a range of matters concerning the possession, operation or use of radioactive substances that may be on the relevant premises, including ensuring that:

- the equipment or devices containing radioactive substances comply with the relevant design and performance criteria in the relevant regulations;
- the equipment or radioactive substances are used only for the prescribed purposes and only by persons holding a radiation safety licence (or by persons otherwise approved by the Radiological Council);
- appropriate instructions, supervision, facilities and safety devices are provided to minimise the radiation dose received by radiation workers and the public;
- the maximum permitted quantities of radioactive substances at the premises are not exceeded; and
- an appropriately qualified radiation safety officer is appointed in respect of the premises.

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50 As mentioned above, although radioactive substances are classified as Class 7 dangerous goods for the purposes of the *Explosives and Dangerous Goods Act 1961* (WA), radioactive substances are expressly excluded from the operation of the *Explosives and Dangerous Goods (Dangerous Goods Handling and Storage) Regulations 1992* (WA). See The *Dangerous Goods (Transport) (Road and Rail) Regulations 1999* (WA) and the *Explosives and Dangerous Goods (Dangerous Goods Handling and Storage) Regulations 1992* (WA).

51 RSA, s 25.

52 RSA, s 28(2).

53 RSA, s 37.

54 RST Regs, reg 37.

55 These matters are set out in the premises registration application form (Form RS10), which at the time of writing is available from the Radiological Council.

56 RSG Regs, reg 28.

Temporary storage – The RSG Regs[57] exempt the owner of premises which are used for the storage of radioactive substances from the registration requirements if all of the following conditions are satisfied:

- The radioactive substances are stored at the premises only while they are being transported between two other premises.
- Each package containing a radioactive substance is stored on the premises for 24 hours or less.[58]
- Packages containing radioactive substances are, at all times while they are on the premises, kept under the control of a person who holds an appropriate radiation safety licence and in an area of the premises which the public cannot access.[59]

Records relating to registered premises – The owner of registered premises must keep records showing the receipt, transfer and disposal of radioactive substances in or from the premises.[60]

Conditions of storage – Storage of radioactive substances must comply with the technical and other criteria set out in the RSG Regs.[61] These criteria include specific requirements for labelling of containers, warning signs for storage areas, shielding, ventilation, monitoring devices and acceptable exposure levels.

5. REPORTING AND OTHER OBLIGATIONS

Register of radioactive sources – Radiation safety licensees must keep a register of the radioactive sources in their possession and the movement of radioactive sources.[62]

Notification of loss – If a radioactive substance is lost or stolen, the licensee of the registered premises or any other person in possession or control of such a radioactive substance must report the loss or theft to the Radiological Council immediately upon learning of the loss.[63]

Additional information – Licensees may be obliged to provide the Radiological Council with additional information regarding any radioactive substance if the Radiological Council requests so in writing.[64]

Undeliverable consignments – In the event that a consignment is undeliverable, the consignment must be placed in a safe location and the appropriate competent authority must be informed as soon as possible and a request made for instructions as to further action.[65]

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57 RSG Regs, reg 28A.

58 For example, the Port of Fremantle in Western Australia is not licensed to store radioactive substances and therefore cannot be stored for more than 24 hours within port area. Likewise, radioactive substances cannot be received within the port area more than 24 hours prior to shipment unless the berth operator has the required registration with the Radiological Council.

59 These matters are set out in the application form for the registration of premises published by the Radiological Council.

60 RSG Regs, regs 12 and 32(2).

61 RSG Regs, reg 30.

62 RSG Regs, reg 32(1).

63 RSG Regs, regs 14 and 32(6). The RSA does not specify what the report must contain. There may also be reporting or remediation requirements under the Contaminated Sites Act if a substance has been lost and later located and contamination is suspected. The *Environmental Protection Act 1986* (WA), *Occupational Safety and Health Act 1984* (WA) and *Criminal Code Act Compilation Act 1913* (WA) may also impose conditions and/or penalties if the environment or any employees are respectively polluted or exposed to certain levels of radiation.

64 RSA, s 39.

Change of circumstances – If the manner in which a licensee, registrant or holder of an exemption proposes to use or deal with any radioactive substance or premises will vary from the information that they have provided to the Radiological Council, or the information that they have provided will be incorrect, misleading or incomplete in relation to a material detail, then they must give prior notice to the Radiological Council. The Radiological Council may then decide to amend the licence, exemption or registration or treat the matter as a new application.[66]

6. LICENSING AND REGISTRATION CONSIDERATIONS

In addition to paying the applicable licence fees[67] and submitting the necessary documents,[68] an applicant for a radiation safety licence, exemption or premises registration must satisfy the Radiological Council as to:

- the qualifications, competence and experience of the persons concerned in the possession, storage, use, handling and transportation of the radioactive substance; and
- the nature, specifications, construction, installation, shielding, manner of operation or use, or other prescribed requirements relating to the radioactive substance concerned, or the premises thereby affected.

The Radiological Council can refuse to grant or renew a licence, registration or exemption on broad grounds, including where it would be against the public interest.[69] Specifically, the Radiological Council may refuse an application if:

- it does not consider an applicant to be a fit and proper person having regard to the objects of the RSA;
- it considers any radioactive substance will exceed the prescribed levels;
- the premises to which the application relates or any related premises that will be affected are not adequately safeguarded;
- it is not satisfied that safety requirements will be met (whether immediately or in the longer term);
- the radioactive substance is unlikely to produce a positive net benefit, having regard to potential hazards of its use;
- it is not satisfied that the radioactive substance performs a function which has clear advantages over any other practical method; or
- it is not satisfied that the use of the radioactive substance is justified in the form, quantity or quality proposed.

In addition to complying with the conditions of the licence, a licensee must not use, manufacture, store, transport, sell, possess or otherwise deal with a radioactive substance in such a manner as to cause a radiation worker to be exposed to radioactive material in a concentration which would exceed specified levels.[70] Licensees are also obliged to provide the Radiological Council with additional or other information, statements, matters or things concerning any radioactive substance within such reasonable time as the Radiological Council specifies in writing.[71]

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65 RST Regs, reg 4 and the International Regulations, para 582.
66 RSA, s 38.
67 As to fee requirements, see RSG Regs, reg 58.
68 As to form requirements, see RSG Regs, reg 59.
69 RSA, s 32.
70 RSG Regs, reg 33.
71 RSA, s 39.

7. FUTURE DEVELOPMENTS

7.1 Security of Radioactive Sources

In January 2007, as part of its *Radiation Protection Series*, ARPANSA released a Code of Practice for the Security of Radioactive Sources (Security Code). The Security Code has not yet been given force of law in Western Australia, but ARPANSA expects that it will be adopted across Australia and administered by the relevant authorities in each jurisdiction as part of the regulatory framework governing the use of radiation.[72] The Radiological Council has informed the writers that it endorses the Security Code and expects that it will be formally adopted through legislation in Western Australia in due course.

In broad terms, the Security Code requires persons dealing with a radioactive source to comply with more stringent security requirements in order to decrease the likelihood of the unauthorised access or acquisition of radioactive sources by persons with malicious intent. The applicable security requirements vary according to the category of the radioactive source and the "threat level" for radiological attack (being the perceived likelihood of perpetrators acquiring radioactive sources for malicious intent).

The Security Code categorises radioactive sources into five categories based on the International Atomic Energy Agency's *Categorization of Radioactive Sources Safety Guide.*[73] Category 1 sources are considered to be the highest risk. Generally, greater security measures are required as the threat level increases.[74] Threat levels are set by the Australian Government's Threat Assessment Centre and are either communicated to the relevant regulatory authority or the person responsible for managing the source (Responsible Person).

For Category 1, 2 and 3 sources, the Responsible Person must formulate a security plan, and if a source is being transported, a transport security plan. Both security and transport security plans must demonstrate how the requirements of the Security Code will be satisfied and must be assessed and approved by the relevant regulatory authorities. Any person dealing with Category 1, 2 or 3 source must have a legitimate reason for dealing with the source and undergo a security background check.[75] In the event that a Category 1 or 2 source is to be transferred between jurisdictions, the intended recipient must also ensure that the regulatory authority in the jurisdiction in which they reside has approved the transfer of the source.[76]

7.2 Transportation of Uranium Ore, Nuclear Material and Waste

It is currently Western Australian Government policy to prohibit uranium mining. The storage and transportation of certain nuclear waste is also expressly prohibited under the *Nuclear Waste Storage and Transportation (Prohibition) Act 1999* (WA).[77] If the current Government policy

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72 ARPANSA, Radiation Protection Series No 11, *Code of Practice for the Security of Radioactive Sources*, 2007, p 1. The Security Code will apply to persons dealing with a sealed radioactive source other than in circumstances where the CA Act or the Navigation Act apply to that person.

73 Security Code, Schedule B.

74 Security Code, Schedules C and D.

75 Security Code, Part 2.1.6. In addition to an identity check, a security background check includes a security assessment in respect of a person, issued by Australian Security Intelligence Organisation, and criminal history checks by the Australian Federal Police, and all state and territory police services. Security Code, Schedule E.

76 Security Code, Part 2.3.8.

77 *Nuclear Waste Storage and Transportation (Prohibition) Act 1999* (WA), s 7A.

changes, the existing regulatory framework for the storage and transportation of radioactive substances in Western Australia may also be revised.

Going forward, both the *Uranium Industry Framework* report[78] (UIF Report) and the Prime Minister's taskforce report, *Uranium Mining, Processing and Nuclear Energy - Opportunities for Australia?*[79] (Switkowski Report), conclude that the Transport Code should be sufficient for the regulation of uranium transportation in Australia. However, they also note that there is inconsistent application of uranium transport standards across States and Territories, and in some cases, those standards exceed the requirements of the Transport Code.[80]

Both reports recommend a national approach to the regulation of the nuclear fuel cycle, including the transportation of nuclear ore and waste.[81] Specifically, the UIF Report recommends the establishment of a single body to oversee a national approach to the domestic transport of uranium, which would seek agreement from the States and Territories that no regulatory requirements would be imposed in relation to the transport of uranium beyond the requirements of the Transport Code. Permits are currently required from the Australian Safeguards and Non-Proliferation Office under the *Nuclear Non Proliferation (Safeguards) Act 1987* (Cth) in order to transport or possess nuclear material, which is consistent with a national approach to regulation.

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78 Commonwealth of Australia 2006, *Uranium Industry Framework*, Report of Uranium Industry Framework Steering Group, September 2006. The Uranium Industry Framework (UIF) Steering Group was established by the Minister for Tourism, and Resources, the Hon Ian Macfarlane MP in August 2005. The primary objectives of the UIF are to identify opportunities for, and impediments to, the future development of the Australian uranium industry.

79 Commonwealth of Australia 2006, *Uranium Mining, Processing and Nuclear Energy - Opportunities for Australia?* Report to the Prime Minister by the Uranium Mining, Processing and Nuclear Energy Review Taskforce, December 2006. The taskforce was appointed to undertake an objective, scientific and comprehensive review of uranium mining, value-added processing and the contribution of nuclear energy in Australia in the longer term.

80 Switkowski Report, Part 9.2.2 and UIF Report, Part 4.2.3.

81 Switkowski Report, Part 9.5 and UIF Report, Part 4.2.3 (Recommendation 5).