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Agreement between the Government of Australia and the Government of the United Arab Emirates on Cooperation in the Peaceful Uses of Nuclear Energy (Abu Dhabi, 31 July 2012)

Background

2.1 The National Interest Analysis (NIA) for the *Agreement between the Government of Australia and the Government of the United Arab Emirates on Cooperation in the Peaceful Uses of Nuclear Energy* (the proposed United Arab Emirates [UAE] Bilateral Nuclear Cooperation Agreement) states that:

> Under a longstanding policy, Australia requires a bilateral safeguards agreement to supply uranium to any country, which includes stringent nuclear safeguards and security conditions. This policy provides assurances that exported uranium and its derivatives cannot benefit the development of nuclear weapons or be used in other military programs.[1]

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1 National Interest Analysis [2013] ATNIA 3 with attachment on consultation *Agreement between the Government of Australia and the Government of the United Arab Emirates on Cooperation in the Peaceful Uses of Nuclear Energy (Abu Dhabi, 31 July 2012)* (Hereafter referred to as 'NIA'), para. 6.

2.2 Australia has 21 Bilateral Nuclear Cooperation Agreements in place that provide for the transfer of Australian nuclear materials to 40 countries.[2] The countries with which Australia has Agreements include:

- the United States;
- Switzerland;
- Egypt;
- Singapore;
- Japan;
- Sweden;
- Mexico;
- Canada;
- New Zealand;
- the Czech Republic;
- Taiwan;
- Hungary;
- Argentina;
- China;
- Russia; and
- the EU.

2.3 The proposed Agreement will permit cooperation between Australia and the UAE on peaceful uses of nuclear energy.[3]

2.4 The proposed Agreement was tabled on 12 March 2013 during the 43rd Parliament. The previous Committee's inquiry attracted eight submissions and two supplementary submissions. Two public hearings were held; on 13 May 2013 and 17 June 2013. The 43rd Parliament was prorogued before the Committee could report on the inquiry.

2.5 The proposed Agreement was referred back to the current Committee on 15 January 2014 for completion of the inquiry.

2.6 The NIA claims that Bilateral Nuclear Cooperation agreements serve Australia's national interest by setting high international standards for the use of uranium through the application of strict conditions.

2 NIA, para. 12.

3 NIA, para. 4.

2.7 All Australia's bilateral nuclear agreements, including the Agreement, provide:

> Stringent nuclear safety and security conditions designed to ensure Australian uranium is used exclusively for peaceful purposes.[4]

2.8 Specifically, the NIA asserts that such Agreements provide assurance that Australian obligated nuclear materials (that is, Australian uranium and its by-products) are used solely for peaceful purposes and are not diverted to nuclear weapons or other military uses.[5]

2.9 By way of Australia's extensive network of such Agreements, the NIA claims, these conditions apply to a significant proportion of uranium in peaceful worldwide use.[6]

2.10 The NIA also claims that Bilateral Nuclear Cooperation Agreements enhance strategic bilateral relationships as well as Australia's commercial position as a supplier of an energy commodity.[7]

2.11 The UAE is pursuing similar agreements with several other countries including the United States, the United Kingdom, Korea, France, Canada, and Japan.[8]

Nuclear power in the UAE

2.12 According to the NIA, the UAE is seeking a long term reliable source of uranium to develop its civil nuclear power program. According to the UAE, the known volumes of natural gas available to its domestic power market are insufficient for projected demand over the long term. In response, the UAE has evaluated a number of alternative electricity sources to meet its electricity demand.[9]

2.13 The UAE opted to develop nuclear power as it assessed this option as providing a proven and commercially competitive power source that would make a significant base load contribution to its power grid.[10]

4 NIA, para. 3.
5 NIA, para. 12.
6 NIA, para. 3.
7 NIA, para. 3.
8 NIA, para. 11.
9 NIA, para. 9.
10 NIA, para. 9.

2.14 The UAE has chosen to construct 'third generation' reactors, which the NIA argues have high safety standards. At the time the NIA was drafted, construction of the first reactor in the UAE was underway. Three more reactors are proposed to be developed.[11]

2.15 The UAE is making considerable use of international expertise to construct its reactors with the intention that international standards be met in the construction. The International Atomic Energy Agency (IAEA) undertook an integrated regulatory review service mission to the UAE in 2011.[12]

2.16 The review compared IAEA standards and international good practice with those in the UAE in the areas of regulatory, technical and policy issues.[13]

2.17 The IAEA review highlighted several good practices of the UAE regulatory system, including:

- the UAE had developed a nuclear policy and subsequent activities related to the introduction of nuclear power within a relatively short timeframe;
- the UAE had made extensive use of the IAEA safety standards to establish its regulations and guidance, and used IAEA peer-review missions and services as a means to strengthen its nuclear safety framework; and
- the UAE had made good progress in developing a systematic approach to running its regulatory organisation as established in IAEA safety standards.[14]

2.18 The IAEA review also made recommendations to improve the UAE regulatory system, including:

- a national policy and strategy for radioactive waste management be concluded and implemented as soon as possible; and
- the roles and responsibilities of emergency response organizations be clarified as soon as possible.[15]

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11 NIA, para. 9.

12 NIA, para. 10.

13 NIA, para. 10.

14 International Atomic Energy Agency, *Press Release 2011/31, IAEA Concludes Peer Review of UAE's Regulatory Framework*, 14 December 2011, <http://www.iaea.org/newscenter/pressreleases/2011/prn201131.html>, accessed 14 February 2014.

15 International Atomic Energy Agency, *Press Release 2011/31, IAEA Concludes Peer Review of UAE's Regulatory Framework*, 14 December 2011, <http://www.iaea.org/newscenter/pressreleases/2011/prn201131.html>, accessed 14 February 2014.

2.19 The proposed Agreement reflects the UAE's commitments made as part of the process of developing its civil nuclear energy program. The UAE has published its commitments in the paper *Policy of the United Arab Emirates on the Evaluation and Potential Development of Peaceful Nuclear Energy*, released in 2008.[16]

2.20 The Paper outlines the UAE's decision to forgo enrichment and reprocessing in the UAE, and also commits to high standards of nuclear safety and security.[17]

2.21 To this end, the Committee was advised by Dr Robert Floyd, Director General, Australian Safeguards and Non-Proliferation Office (ASNO) that, as the UAE does not 'have knowledge of access to or skills in the key technologies of enrichment and reprocessing,'[18] and does not have a domestic supply of uranium ore,[19] it is not possible for the UAE to be involved in nuclear weapons proliferation.[20]

2.22 The UAE is a signatory to the *Treaty on the Non-Proliferation of Nuclear Weapons* and has a comprehensive safeguards agreement with the IAEA.[21]

Security issues

2.23 Evidence gathered during the 43rd Parliament as part of the previous Committee's inquiry into the Agreement disclosed concerns about the apparent failure to consider security issues when negotiating the Agreement.[22] According to Adjunct Professor Richard Broinowski, Board Member, International Campaign to Abolish Nuclear Weapons:

> …I see conspicuous failure in addressing national security interests—national interests that should be discussed and should be thoroughly ventilated before such an agreement is negotiated. It does not address the question of terrorism; it does not address the question of war, where reactors in the Middle East have been targets of conflict in the past. It certainly does not address security issues or—and this is the most important point I want to make—the propensity for proliferation.[23]

16 NIA, para. 5.

17 NIA, para. 5.

18 Dr Robert Floyd, Director General, Australian Safeguards and Non-Proliferation Office, *Committee Hansard*, 17 June 2013, p. 16.

19 Dr Robert Floyd, *Committee Hansard*, 17 June 2013, p. 13.

20 Dr Robert Floyd, *Committee Hansard*, 17 June 2013, p. 16.

21 NIA, para. 13.

22 See for example Friends of the Earth, *Submission 5*, p. 2.

23 Adjunct Professor Richard Broinowski, Board Member, International Campaign to Abolish Nuclear Weapons, *Committee Hansard*, 17 June 2013, p. 1.

2.24 In particular, Professor Broinowski counterpointed the close relationship between the UAE, Saudi Arabia, and Pakistan, a known nuclear weapon State, and their poor relationship with Iran, a country allegedly attempting to develop nuclear weapons. Further, Professor Brionowski argued that if the UAE possessed nuclear materials, this might destabilise the relationship between the UAE, Saudi Arabia and Pakistan on the one hand and Iran on the other.[24]

2.25 Further, Dr Susan Wareham, Vice President, Medical Association for Prevention of War, pointed out that:

> …Iran … signed contracts for reactor construction and supply with the US, Germany, and France. If we move on a few decades Iran is no longer a friend to the west but the same western countries that helped install that nuclear program are now trying desperately to stop it if in fact there is a weapons program there.[25]

2.26 The Medical Association for the Prevention of War also argued that, while the UAE has made some significant commitments to nuclear nonproliferation, it has not yet developed the institutional capacity to meet those commitments. The Association quoted the findings of the Nuclear Threat Institute in relation to the UAE:

> With its many voluntary commitments, the UAE has set a positive nonproliferation example for other nuclear newcomer states. However, the UAE will need considerable foreign assistance and time to follow through on the nonproliferation pledges it has made. Without these, experts caution a "commitment-compliance gap" may emerge, whereby the UAE lacks the institutional capacity to fully adhere to its commitments. This is of particular concern in the area of nonproliferation export controls, as the UAE only passed its first comprehensive nonproliferation export control legislation in 2007, and historically has been a major transit point for illicit transactions involving Iran and other neighboring countries.[26]

2.27 Dr Wareham argued that nuclear materials exported from Australia to the UAE would last far longer than any government in the UAE. Further, Dr Wareham argued that it was irresponsible for Australia to sell nuclear materials to a country in a region that has undergone and is undergoing

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24 Adjunct Professor Richard Broinowski, *Committee Hansard*, 17 June 2013, p. 1.

25 Dr Susan Wareham, Vice President, Medical Association for Prevention of War, *Committee Hansard*, 17 June 2013, p. 2.

26 Medical Association for the Prevention of War, *Submission 6*, p. 4.

such rapid change, and where the alleged presence of nuclear weapons has been used as a pretext for war.[27]

2.28 A further security issue raised by Dr Wareham related to the UAE's human rights record. Dr Wareham asserted that the safety of whistleblowers was important in the detection of illicit activity including both breaches of safeguards and breaches of safety standards.

2.29 According to Dr Wareham:

> Scientists and others who become aware of illegal or unsafe activities at nuclear facilities must be assured of their personal safety if they divulge or report such activities. But we know from reports from organisations such as Human Rights Watch and Amnesty International that that is very far from the situation in the United Arab Emirates where activists and others are silenced by various government means.[28]

2.30 While the UAE plans to forgo the enrichment and reprocessing of nuclear materials, the security this measure provides is, according to the Friends of the Earth's representative, Dr Jim Green, not as safe as it might at first seem.

2.31 Dr Green pointed out that, while enrichment and reprocessing may take place elsewhere, there was nothing in the statements by the UAE or the proposed agreement that would prevent the products of the enrichment and reprocessing of Australian obligated nuclear material from being stockpiled in the UAE.[29]

2.32 Dr Green stated that if the UAE stockpiled enriched or reprocessed nuclear materials, it would:

> …totally undermine any benefits arising from their agreement to ban domestic enrichment and reprocessing in the UAE.[30]

2.33 In response, Dr Floyd pointed out that the UAE was well aware of the security issues involved in establishing nuclear power facilities in the Middle East:

> The UAE see that for them to have a nuclear energy program they need to implement the highest standards, partly as a consequence of the region in which they live, and they see that is important. …

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27 Dr Susan Wareham, *Committee Hansard*, 17 June 2013, p. 2.

28 Dr Susan Wareham, *Committee Hansard*, 17 June 2013, p. 3.

29 Dr Jim Green, National nuclear campaigner, Friends of the Earth, Australia, *Committee Hansard*, 17 June 2013, p. 5.

30 Dr Jim Green, *Committee Hansard*, 17 June 2013, p. 5.

> the UAE is putting in place very solid practices, standards and behaviours.[31]

2.34 Dr Floyd discussed the fact that the proposed Agreement represented a significant improvement in regulatory safety standards over previous Agreements, which are intended to address the risks associated with having nuclear materials in the region:

> The proposal we have before us is a nuclear cooperation agreement that goes further in its restrictions than other agreements that we have had. The proposal we have before us talks about a prohibition of the key technological processes of enrichment and reprocessing within the UAE. It reflects in that regard the domestic policy of the UAE, which again they chose because of where they live and their regional context to forego the right for enrichment and reprocessing within the UAE.[32]

2.35 In the view of the Committee, critics of the UAE's efforts to develop a civilian nuclear power program underestimate the lengths to which the UAE has gone in planning for its future energy needs. The UAE has:

> … surveyed energy future options. They have done substantial reports and within their sovereign decision making processes they have come to the conclusion that nuclear energy is an economic and attractive option.[33]

2.36 Unlike other attempts to develop a civilian nuclear power program in the Middle East, the UAE has been absolutely transparent in its intentions and has engaged with important stakeholders in the region, including the United States, to minimise any potential misunderstandings over its intentions.[34]

2.37 In the Committee's view, the approach adopted by the UAE could set a useful example for future efforts by countries in the Middle East to develop civilian nuclear energy programs.

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31 Dr Robert Floyd, *Committee Hansard*, 17 June 2013, p. 13.

32 Dr Robert Floyd, *Committee Hansard*, 17 June 2013, p. 13.

33 Dr Robert Floyd, *Committee Hansard*, 17 June 2013, p. 14.

34 The UAE publically announced its intention to develop nuclear power when it published the *Policy of the United Arab Emirates on the Evaluation and Potential Development of Peaceful Nuclear Energy* in 2008. The UAE has already concluded a bilateral nuclear cooperation agreement with the United States.

Reasons for entering into the proposed agreement

2.38 The NIA lists the potential benefits of the proposed Agreement as:

- opening an expanding market for Australian uranium miners;
- supporting nuclear non-proliferation by applying Australian standards to another uranium market;
- reinforcing Australia's strategic relationship with the UAE;
- consolidating Australia's position as a reliable supplier of uranium;
- providing an opportunity to engage with the UAE on nuclear related matters such as nuclear safety, scientific and medical research; and
- reinforcing Australia's commitment to nuclear safety by requiring that international standards of nuclear safety and waste management are applied.[35]

2.39 In general, Dr Floyd and other witnesses identified the UAE's commitment to implementing the highest standards as part of its nuclear energy program as being one of the significant benefits of the proposed Agreement.[36]

2.40 Dr Floyd summarised the benefits of the proposed Agreement in the following terms:

> …the proposal we have before you is actually lifting the bar… a nuclear cooperation agreement that goes further in its restrictions than other agreements that we have had.[37]

Economic benefits

2.41 Mr Dave Sweeney, representing the Australian Conservation Foundation (ACF), took issue with the NIA's statements about the economic benefits of the proposed Agreement. Mr Sweeney referred to ACF studies that indicated the Australian nuclear mining industry employed only 650 people, and contributed less than one third of one percent to Australia's export revenue. Using these figures, Mr Sweeney argued that the uranium mining industry in Australia was not large enough to justify the risk of supplying nuclear materials to the UAE.[38]

35 NIA, para. 7.

36 Dr Robert Floyd, *Committee Hansard*, 17 June 2013, p. 13.

37 Dr Robert Floyd, *Committee Hansard*, 17 June 2013, p. 13.

38 Mr Dave Sweeney, Campaigner, Australian Conservation Foundation, *Committee Hansard*, 17 June 2013, p. 3.

2.42 In relation to the economic impact of uranium mining, the Australian Uranium Association stated that:

> Australia's uranium industry is a middle-sized export industry earning export income (over recent years in the range $600 to $700 million) at about the same level as civil and engineering equipment; dairy exports, like cheese; telecommunications equipment; and specialised machinery and parts.[39]

2.43 ASNO responded to Mr Sweeney's estimates of the number of people employed in the Australian nuclear industry as follows:

> Estimates of employment in the Australian uranium industry vary, largely due to the Olympic Dam mine being poly-metallic (extracting other metals besides uranium), and therefore having employees who could be ascribed to more than one sector of the mining industry. If all employees of Olympic Dam are included as being employed in the uranium industry, the Department of Resources, Energy and Tourism estimates current total direct employment in the Australian uranium industry at 4,200 people.[40]

Obligations

2.44 The proposed Agreement contains the following obligations:

- Australian obligated nuclear materials, including non-nuclear material, equipment, components and technology, will only be used for peaceful purposes and will not be diverted for military or explosive purposes;
- IAEA safeguards relating to nuclear material, non-nuclear material, equipment, components and technology will apply to Australian obligated nuclear materials supplied under the proposed Agreement;
- protection measures that satisfy accepted international standards will apply to Australian obligated nuclear materials;
- fallback safeguards will come into effect in the event the IAEA is no longer able to administer safeguards in the UAE;
- Australian consent will be required before the transfer of Australian obligated nuclear materials to a third State;
- enrichment and reprocessing of Australian obligated nuclear materials will be prohibited in the UAE;

39 Australian Nuclear Association, *Submission 12*, p. 1.

40 Australian Safeguards and Non Proliferation Office, *Submission 11*, p. 4.

- supply of Australian obligated nuclear materials will cease, and any such materials in the UAE will be returned to Australia, in the event of material non-compliance with IAEA and international standards by the UAE; and
- administrative procedures will be agreed between the parties to ensure the implementation of the proposed Agreement.[41]

2.45 The proposed Agreement also provides for consultation between the Parties.[42]

2.46 Article II of the proposed Agreement affirms the intent of the Parties to cooperate in the use of nuclear energy for peaceful purposes in the areas of:

- nuclear safety and radiation protection;
- safeguards;
- nuclear research and development; and
- regulation.[43]

2.47 Article IV details the Australian obligated nuclear materials subject to the Agreement. The listed items include:

- nuclear material or its products transferred between the Parties or to a third State; and
- non-nuclear material, equipment, components, or technology transferred between the Parties or a third State.[44]

2.48 Nuclear and non-nuclear materials covered by this Agreement will only be transferred between legal entities authorised to release or receive it.[45]

2.49 The nuclear and non-nuclear materials covered by the proposed Agreement will continue to be subject to the Agreement until: they are no longer usable for any nuclear activity relevant from the point of view of safeguards; are irrecoverable for processing into a form which is usable for any nuclear activity; they are transferred outside the jurisdiction of either Party; or the Parties agree in writing that the material is no longer subject to the proposed Agreement.[46]

2.50 Article V of the proposed Agreement obliges the Parties to ensure that nuclear safety and radioactive waste management comply with the main international instruments related to nuclear safety and waste

41 NIA, para. 14.
42 NIA, para. 14.
43 NIA, para. 16.
44 NIA, para. 17.
45 NIA, para. 17.
46 NIA, para. 17.

management. Any amendments to the relevant international instruments will apply to the Parties to the proposed Agreement.[47]

2.51 The proposed Agreement requires the Parties to ensure adequate physical protection of nuclear and non-nuclear material covered by the proposed Agreement within the jurisdictions and while the material is being transported between the Parties. This protection extends to the intellectual property associated with these materials.[48]

2.52 The proposed Agreement will come into effect on the last date upon which the Parties advise each other that their internal procedures necessary for the Treaty to come into force have been completed.[49]

Monitoring the obligations

2.53 Witnesses to the inquiry raised two general concerns about monitoring the obligations contained in the proposed Agreement.

2.54 The first concern related to the ability of the IAEA to monitor the obligations contained in Agreements of this sort because of its limited budget.[50] In previous inquiries, a representative of ASNO had advised the Committee that the IAEA very rarely undertakes compliance inspections of nuclear facilities.[51]

2.55 The ACF discussed the cost of monitoring the UAE's compliance with the proposed Agreement. In particular, the ACF noted that, while the Agreement relies heavily on the IAEA to achieve the proposed treaty action's nuclear safety and non-proliferation outcomes, the cost estimate for the proposed treaty action makes no provision for an enhanced national contribution to the IAEA's monitoring and compliance division.[52]

2.56 The second concern relates to the potential conflicting roles of the IAEA. Mr Sweeney pointed out that the IAEA is charged both with promoting the peaceful use of nuclear energy, and regulating the use of nuclear material to prevent it from being diverted into non-peaceful programs. Assigning the roles of promotion and regulation to the IAEA can, according to Mr Sweeney, result in a potential conflict of interest that might endanger the Agency's regulatory function.[53]

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47 NIA, para. 18.

48 NIA, paras. 19 and 24.

49 NIA, para. 2.

50 Mr Dave Sweeney, *Committee Hansard*, 17 June 2013, p. 6.

51 Joint Standing Committee on Treaties, *Report 94*, 18 September 2008, p. 23.

52 Australian Conservation Foundation, *Submission 8*, p. 1.

53 Mr Dave Sweeney, *Committee Hansard*, 17 June 2013, p. 6.

2.57 However, the UAE will not be relying on the IAEA alone to monitor compliance with nuclear materials safety obligations. The UAE has established its own independent regulator, the Federal Authority for Nuclear Regulation, using international recognised experts in the field.[54]

2.58 The UAE has also established an International Advisory Board, the IAB, to assist in the development of its nuclear energy program, which includes a group of internationally recognised experts in nuclear safety, security, non-proliferation and the development of human resources. Reports of the IAB are made public.[55]

2.59 In terms of monitoring obligations, the Committee notes that these institutional arrangements exceed international standards.

Return of waste

2.60 The proposed Agreement's obligation for nuclear materials in the UAE to be returned to Australia in the event of material non-compliance with IAEA and international standards caused a degree of concern amongst inquiry participants.

2.61 According to Mr David Noonan, this is a circumstance that has not been countenanced before. Mr Noonan pointed out that:

> Until now a bipartisan position has existed through the powers of the *Customs Act 1901* and the Customs (Prohibited Imports) Regulations 1956, Regulation 4R Importation of Radioactive Substances, that radioactive waste is a prohibited import—unless its import is sanctioned by Ministerial discretion.
>
> This treaty action creates a Ministerial discretion to import certain international nuclear wastes from the UAE.[56]

2.62 Mr Noonan argued that the Federal Government would not likely have a mandate to bring any international nuclear waste to Australia regardless of whether it originated in Australia or not.[57]

2.63 Mr Noonan pointed out that Australian obligated nuclear materials that may be subject to repatriation could include high level nuclear waste such as spent nuclear fuel or plutonium, and that Australia does not at present have the facilities to store such materials.[58]

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54 Dr John Kalish, Assistant Secretary, Australian Safeguards and Non-Proliferation Office, Department of Foreign Affairs and Trade, *Committee Hansard*, 13 May 2013, p. 23.

55 Dr John Kalish, *Committee Hansard*, 13 May 2013, p. 23.

56 Mr David Noonan, *Submission 4*, p 12.

57 Mr David Noonan, *Committee Hansard*, 17 June 2013, p. 2.

58 Mr David Noonan, *Committee Hansard*, 17 June 2013, p. 2.

2.64 Further:

> Russia is the only country in the world that has ever offered to take high-level spent nuclear waste from any other country. They made that offer to Iran and Iran did not take them up on it. No other country in the world has offered or has any arrangement to take high-level spent nuclear fuel waste from another country to their homeland.[59]

2.65 In relation to the apparent inconsistency between the proposed agreement and the Customs (Prohibited Imports) Regulations 1956, ASNO responded that:

> If a circumstance arose whereby an Australian Government chose to invoke the right to have [Australian obligated nuclear materials] returned and stored in Australia this would need to be done in accordance with the relevant laws at the time. Under current laws, the Customs (Prohibited Imports) Regulations 1956 would apply to the importation of fresh or spent nuclear fuel. As structured, Regulation 4R does not establish an absolute prohibition against importing radioactive substances such as this. Rather, it requires permission in writing granted by the Minister for Health and Ageing or an authorised officer. An authorised officer means the CEO of [Australian Radiation Protection and Nuclear Safety Agency] or an APS employee assisting the CEO that has been appointed by the Minister.[60]

2.66 In addition, virtually all participants in the inquiry recognised that the likelihood of Australia having to repatriate Australian obligated nuclear materials would be very remote[61].

2.67 Before use, Australian obligated nuclear materials must go through a process of enrichment and fuel fabrication. As a result, nuclear material originating in Australia also becomes nuclear material obligated to those countries in which it is enriched and fabricated into fuel. In other words, the nuclear material may be obligated to two or three countries before it arrives in the UAE.

2.68 In relation to the UAE, Australian obligated nuclear material will be enriched in the United States or France, and then fabricated into fuel in South Korea.[62]

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59 Mr David Noonan, *Committee Hansard*, 17 June 2013, p. 9.

60 Australian Safeguards and Non Proliferation Office, *Submission 11*, p. 3.

61 See for example *Committee Hansard*, 17 June 2013, p. 9.

62 Dr Robert Floyd, Committee Hansard, 17 June 2013, p. 17.

2.69 All of these countries have bilateral nuclear cooperation treaties with the UAE containing provisions for the repatriation of obligated nuclear materials in the event of a breach of IAEA standards by the UAE. Australia would therefore be only one of a number of countries to which Australian obligated nuclear materials could be repatriated.[63]

2.70 According to Dr Floyd, in the event that it becomes necessary to repatriate Australian obligated nuclear materials:

> I am sure that we would be in close consultation with those countries in such a circumstance to consider what is the best fate and arrangement for nuclear material that was in a country where there was a concern.[64]

Transparency

2.71 While the proposed Agreement contains a number of provisions relating to what can and cannot be done with Australian obligated nuclear materials, the Friends of the Earth's representative, Dr Jim Green, pointed out that information on matters relevant to the proposed agreement such as the details and volumes of Australian obligated nuclear material, Australia obligated plutonium, and material unaccounted for, will not be released.[65]

2.72 Dr Green argued that this lack of transparency undermines the nuclear safety provisions of the proposed Agreement, because it is not possible for the Australian public to tell whether it is being adhered to or not.[66]

2.73 Generally, information relating to the volumes of Australian obligated nuclear material held by various countries to which Australia sells uranium is considered confidential. In other words, the degree of transparency, or lack thereof, in the proposed Agreement is consistent with other nuclear cooperation agreements. Arguments about the transparency of the proposed Agreement should more correctly be considered in the context of all Bilateral Nuclear Cooperation Agreements, rather than this specific Agreement.

63 Dr Robert Floyd, Committee Hansard, 17 June 2013, p. 17.

64 Dr Robert Floyd, Committee Hansard, 17 June 2013, p. 17.

65 Dr Jim Green, National nuclear campaigner, Friends of the Earth, Australia, *Committee Hansard*, 17 June 2013, p. 4.

66 Dr Jim Green, *Committee Hansard*, 17 June 2013, p. 4.

2.74 In any case, the Committee notes that the UAE has taken a number of steps to ensure that its civilian nuclear power program is more transparent than the international standard, including the appointment of the IAB, the reports of which are made public, as discussed above.[67]

Implementation

2.75 According to the NIA, the legislative framework relating to the transfer of nuclear materials is sufficient to comply with the terms of the proposed Agreement.

2.76 It will be necessary to introduce regulations under the *Nuclear Non-Proliferation (safeguards) Act 1987* and the *Australian Radiation Protection and Nuclear Safety Act 1998* to add the proposed Agreement to the list of Agreements to which these Acts apply.[68]

Costs

2.77 The costs associated with the proposed Agreement will be limited to the travel costs associated with sending officers from ASNO and the Australian Radiation Protection and Nuclear Safety Agency to the UAE to ensure the nuclear materials accounting system used by the UAE complies with the proposed Agreement and to cooperate on nuclear safety obligations. These costs will be managed within the budgets of the respective Australian Government Departments.[69]

Recommendations

2.78 The Committee recognises that the export of uranium from Australia is a matter of contention for many Australians. The Committee also recognises that the proposed bilateral partner in this agreement, the UAE, is a country located in a volatile part of the world.

2.79 Nevertheless, the Committee feels it is important to recognise that the Government of the UAE is aware of these risks and has taken active steps to ameliorate them by being transparent in its intent and engaging with

67 Dr John Kalish, *Committee Hansard*, 13 May 2013, p. 23.

68 NIA, para. 29.

69 NIA, para. 30.

international stakeholders to develop a high standard civilian nuclear power program.

2.80 The Committee is of the view that, questions about the benefits of nuclear energy notwithstanding, in developing a civilian nuclear power program that meets the highest international standards for transparency, and forgoes the enrichment of nuclear materials, the UAE's example ought to be encouraged and replicated elsewhere.

2.81 The Committee also notes the concerns raised in evidence relating to:

- physical inspections by the IAEA of sites at which Australian obligated nuclear material will be located;
- the recommendations of the *United Nations System Wide Study on the Implications of the Accident at the Fukushima Daiichi Nuclear Power Plant*; and
- the funding difficulties being experienced by the IAEA.

2.82 Subject to recommendations intended to address these concerns, the Committee supports the UAE Bilateral Nuclear Cooperation Agreement and recommends that binding treaty action be taken.

Recommendation 1

The Committee recommends that, prior to ratification of the proposed Treaty, the IAEA undertake physical inspections of UAE facilities that will handle Australian obligated nuclear materials.

Recommendation 2

The Committee recommends that the Government report to the Parliament on what action it has taken to implement the recommendations of the *United Nations System Wide Study on the Implications of the Accident at the Fukushima Daiichi Nuclear Power Plant.*

Recommendation 3

The Committee recommends that the Government explore and report to Parliament on mechanisms to strengthen the resourcing of the IAEA.

Recommendation 4

Subject to the above recommendations, the Committee supports the *Agreement between the Government of Australia and the Government of the United Arab Emirates on Cooperation in the Peaceful Uses of Nuclear Energy* and recommends that binding treaty action be taken.