
The Parliament of the Commonwealth of Australia

Report 35

Agreement for Co-operation in the Peaceful Uses of Nuclear Energy

October 2000

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ISBN



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Membership of the Committee

Chair The Hon Andrew Thomson MP

Deputy Chair Senator Barney Cooney

Members	The Hon Dick Adams MP	Senator Andrew Bartlett
	The Hon Bruce Baird MP	Senator Helen Coonan
	Kerry Bartlett MP	Senator Joe Ludwig
	Anthony Byrne MP	Senator Brett Mason
	Kay Elson MP	Senator the Hon Chris Schacht
	Gary Hardgrave MP	Senator Tsebin Tchen
	De-Anne Kelly MP	
	Kim Wilkie MP	

Committee Secretariat

Secretary Grant Harrison

Inquiry Secretary Marilyn Bassett

Administrative Officer Lisa Kaida



Recommendation

Agreement for Co-operation in the Peaceful Uses of Nuclear Energy

The Committee supports the amendments to the *Agreement for Co-operation in the Peaceful Uses of Nuclear Energy with Japan* and recommends that binding treaty action be taken.

Introduction

Purpose of the report

- 1.1 This Report contains advice to Parliament on the review by the Joint Standing Committee on Treaties (the Committee) of the *Amendments to the Implementing Arrangements for Cooperation in the Peaceful Uses of Nuclear Energy Agreement with Japan*, which was tabled on 15 August 2000.¹
- 1.2 We have commenced, but not yet completed, our review of two other proposed treaty actions which were also tabled on 15 August 2000:
 - *Agreement on Extradition between Australia and the Republic of Latvia*; and
 - *Amendments to the Space Vehicle Tracking and Communications Facilities Agreement with the United States of America*.
- 1.3 We expect to report on these treaties in our next report, which will be presented to Parliament shortly.

Availability of documents

- 1.4 The advice in this Report refers to, and should be read in conjunction with, the National Interest Analysis (NIA) prepared for the proposed treaty action. A copy of the NIA is at Appendix B. The analysis was prepared for the proposed treaty action by the Government agency responsible for the administration of Australia's responsibilities under the treaty. The NIA

¹ Senate Journal No. 130, 15 August 2000, p. 3059; House of Representatives, *Votes and Proceedings*, No 128, 15 August 2000, p. 1453

was tabled in Parliament as an aid to Parliamentarians when considering the proposed treaty action.

- 1.5 A copy of the treaty action and NIA can also be obtained from the Treaties Library maintained on the Internet by the Department of Foreign Affairs and Trade (DFAT). The Treaties library is accessible through the Committee's website at www.aph.gov.au/house/commttee/jsct.

Conduct of the Committee's review

- 1.6 Our review of the treaty action was advertised in the national press and on our web site. One submission was received in response to the invitation to comment in the advertisement and is listed at Appendix C.²
- 1.7 We also took evidence at a public hearing held on 28 August 2000. A list of witnesses who gave evidence at the hearing is at Appendix D.
- 1.8 A transcript of the evidence taken at the hearing can be obtained from the database maintained on the Internet by the Department of the Parliamentary Reporting Staff (www.aph.gov.au/hansard/joint/commttee/comjoint.htm), or from the Committee Secretariat.

² Our review of the proposed treaty action was advertised in *The Weekend Australian* on 19/20 August 2000, p. 18

Agreement for Co-operation in the Peaceful Uses of Nuclear Energy

Proposed treaty action

- 2.1 The treaty action is a further amendment of the Agreement with Japan establishing an Implementing Arrangement (the 2000 Amendment) pursuant to the 1982 Agreement for Co-operation in the Peaceful Uses of Nuclear Energy (the 1982 Agreement).¹
- 2.2 The 1982 Agreement included as an annex an Implementing Arrangement that details how it would operate, including facilities at which Japan may process, use or reprocess Australian nuclear material. These facilities were listed in the delineated nuclear fuel cycle program (DNFCP), or capsule, attached to the Implementing Arrangement. It allows for amendments to the capsule.
- 2.3 The DNFCP was amended in 1990 by adding two new facilities and changing the name of a Japanese research agency.² This Committee supported further proposed amendments to add American facilities to the DNFCP in December 1999.³
- 2.4 Australian uranium exports are covered by a network of safeguard agreements that establish and ensure conditions for the transfer of uranium to ensure transfers are consistent with Australia's commitment to

¹ NIA, *Agreement for Co-operation in the Peaceful Uses of Nuclear Energy*, p. 1

² Joint Standing Committee on Treaties, *Report No. 28*, December 1999, p. 54

³ Joint Standing Committee on Treaties, *Report No. 28*, December 1999, p. 58

the non-proliferation of nuclear weapons and Australia's related treaty obligations.⁴

- 2.5 The treaty action under consideration, relates to the use by Japan of mixed uranium and plutonium oxide (MOX), a power reactor fuel. The Japanese utilities propose to have MOX fuel elements fabricated at European fuel fabrication facilities and so seek to add four European MOX facilities to the list of facilities covered by the 1982 Australia-Japan Nuclear Co-operation Agreement.⁵
- 2.6 The 2000 Amendment seeks to add the following four European facilities related to MOX fabrication for light water reactors to the DNFCP:
- Belgonucleaire's Dessel MOX Fabrication Plant (Belgium);
 - Franco-Belge de Fabrication de Combustibles International's Dessel Plant (Belgium);
 - Compagnie Generale des Matieres Nucleaires's MELOX Plant (France); and
 - Compagnie Generale des Matieres Nucleaires's Cadarache Fuel Fabrication Utility (France)⁶.
- 2.7 The 2000 Amendment does not impinge on any of the overarching obligations of the 1982 Agreement. It merely expands their scope to include the European fuel fabrication facilities identified above.⁷

Evidence presented

Trade in Australian Uranium

- 2.8 We were informed that the effective operation of the Australia-Japan Nuclear Co-operation Agreement benefits Australia as the agreement facilitates significant trade in uranium. Japan is the world's third largest producer of nuclear power, behind the USA and France and is an important market for Australian uranium. In 1999 Australia sold 2,300 tonnes of uranium to Japan valued at approximately \$129m, which was 30% of Australia's total uranium exports. For reasons of energy security and to limit its greenhouse gas emissions, Japan is strongly committed to

⁴ NIA, *Agreement for Co-operation in the Peaceful Uses of Nuclear Energy*, p. 1

⁵ Robert Tyson, (DFAT), *Transcript of Hearings*, 28 August 2000, p. TR 20

⁶ NIA, *Agreement for Co-operation in the Peaceful Uses of Nuclear Energy*, p. 2

⁷ NIA, *Agreement for Co-operation in the Peaceful Uses of Nuclear Energy*, p. 2

nuclear power for electricity generation and its power requirements are expected to increase over the next 15 years. As such, Australian exports are likely to grow.⁸

Safeguards

- 2.9 We were particularly concerned to ensure that the Agreement provided adequate safeguards for the uses and transportation of Australian uranium consistent with Australia's policies. In this regard, we heard evidence that Australian nuclear material processed at the European MOX facilities under this amendment will be subject to strict safeguards under the 1982 Australia-Japan Nuclear Co-operation Agreement and will be monitored by the Australian Safeguards and Non-Proliferation Office (ASNO). This agreement is one of 15 bilateral nuclear safeguards and co-operation agreements that control the use of Australian uranium and ensure that Australia's security interests in the non-proliferation of nuclear weapons are strictly protected. The agreements provide for the application of International Atomic Energy Agency (IAEA) safeguards and prior Australian consent for re-export of high enrichment or reprocessing of Australian material. We were advised that the proposed addition of the four European MOX facilities is fully consistent with Australia's uranium export and safeguards policy⁹.
- 2.10 We were further advised that companies operating within the *European Atomic Energy Community* (EURATOM) are required to meet strict standards and that Australia's interests are met under the EURATOM safeguards. Australia, is a member of EURATOM, as are the companies that Japan is seeking to add to the DNFCP. Australia has a safeguards treaty with EURATOM.¹⁰
- 2.11 In relation to the tracking of Australian uranium, we heard evidence that the ASNO's specific interest is to ensure that Australian uranium remains exclusively for peaceful use. ASNO has direct contact with EURATOM to ensure that Australia can track its Australian material. We heard further that all material, exported under this arrangement, has been accounted for. ASNO reports its accounts of nuclear material in its Annual Report to Parliament.¹¹

⁸ Robert Tyson, (DFAT), *Transcript of Hearings*, 28 August 2000, p. TR 19

⁹ Robert Tyson, (DFAT), *Transcript of Hearings*, 28 August 2000, p. TR 19

¹⁰ Robert Tyson, (DFAT), *Transcript of Hearings*, 28 August 2000, p. TR 20

¹¹ Andrew Leask, (ASNO), *Transcript of Evidence*, 28 August 2000, p. TR 23

Waste Management

2.12 Australia's obligations for waste from Australia's uranium trade with Japan was examined by the Committee. We heard evidence that responsibility for such waste rests with Japan. Japan buys Australian uranium and uses it as fuel in a reactor. It then has to look after the fuel as a radioactive product. Australia is responsible only for its own nuclear waste. For example, nuclear waste from the medical industry. Australia is not responsible under any treaty for waste produced in other countries.¹²

Other Evidence

2.13 The Committee received evidence that raised concerns that Australia's uranium trade, resulting in nuclear energy, was not a peaceful process as it contributed to further radioactive contamination.¹³

2.14 We were advised that Australia did not consult directly with the newly listed companies and that this was a commercial decision for Japan. If Japan chose to enter into contracts with these companies Australian interests would be covered fully under our safeguard arrangements with the IAEA and, under this agreement with Japan.¹⁴

Consultation

2.15 The 2000 Amendment was notified to the States and Territories through the Standing Committee on Treaties' Schedule of Treaty Action and a media release was issued by the Department of Foreign Affairs.¹⁵

Conclusions and recommendation

2.16 The proposed treaty action adds a further 4 companies from France and Belgium to the implementation arrangements for the fabrication of nuclear energy for Japan. In considering the experience under the agreement, we are satisfied that monitoring and accountability arrangements have resulted in the safe use and transportation of Australian uranium.

¹² Andrew Leask, (ASNO), *Transcript of Evidence*, 28 August 2000, p. TR25

¹³ Fotini Lesses, *Submission No. 1*, p. 1

¹⁴ Robert Tyson, (DFAT), *Transcript of Hearings*, 28 August 2000, p. TR22

¹⁵ NIA, *Agreement for Co-operation in the Peaceful Uses of Nuclear Energy*, p. 5

- 2.17 The proposed treaty action is consistent with Australia's uranium trade policy and we are satisfied that the safeguards in place under the series of bilateral agreements are adequate to ensure that Australian uranium does not contribute to the proliferation of nuclear weapons. We support the proposed amendments to the agreement for co-operation in the peaceful uses of nuclear energy with Japan.

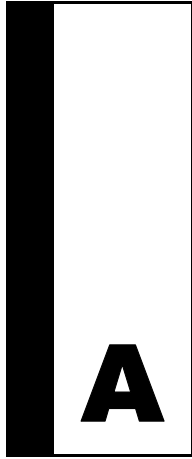
Recommendation 3

- 2.18 **The Committee supports the *agreement to further amend the Implementing Arrangement pursuant to the Agreement between Australia and Japan for Co-operation in the Peaceful Uses of Nuclear Energy* and recommends that binding treaty action be taken.**

ANDREW THOMSON MP

Committee Chairman

9 October 2000



Appendix A - Extract from Resolution of Appointment

The Resolution of Appointment for the Joint Standing Committee on Treaties allows it to inquire into and report on:

- (a) matters arising from treaties and related National Interest Analyses and proposed treaty actions presented or deemed to be presented to the Parliament;
- (b) any question relating to a treaty or other international instrument, whether or not negotiated to completion, referred to the committee by:
 - (i) either House of the Parliament, or
 - (ii) a Minister; and
- (c) such other matters as may be referred to the committee by the Minister for Foreign Affairs and on such conditions as the Minister may prescribe.



Appendix B - National Interest Analysis

Exchange of Notes, done at Canberra on 16 June and 1 August 2000, constituting an Agreement to further amend the Exchange of Letters constituting an Agreement between the Government of Australia and the Government of Japan establishing an Implementing Arrangement pursuant to the Agreement between the Government of Australia and the Government of Japan for Co-operation in the Peaceful Uses of Nuclear Energy, of 5 March 1982, as amended

NATIONAL INTEREST ANALYSIS

Date of Proposed Binding Treaty Action

The treaty action under consideration is the further amendment of the Agreement with Japan establishing an Implementing Arrangement (the 2000 Amendment) pursuant to the 1982 Agreement for Co-operation in the Peaceful Uses of Nuclear Energy (the 1982 Agreement). The 2000 Amendment will enter into force, following Australia's advice to Japan through the diplomatic channel that Australia's constitutional and domestic requirements for entry into force have been met. It is proposed that such notification be given as soon as practicable after 9 October 2000.

Date of Tabling of the Proposed Treaty Action

15 August 2000

Reasons for Australia to take the Proposed Treaty Action

Australian uranium exports are covered by a network of safeguard agreements. These agreements establish and ensure conditions for the transfer of uranium to ensure transfers are consistent with Australia's commitment to the non-proliferation of nuclear weapons and Australia's related treaty obligations. The

obligations include those as Party to the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and those that will be assumed once the 1996 Comprehensive Nuclear-Test-Ban Treaty (CTBT) enters into force. These conditions protect Australia's security interests while facilitating Australia's uranium export industry. Australia currently has fifteen such agreements in place.

The bilateral safeguards agreements Australia enters into are designed to ensure that Australian uranium is properly monitored through the nuclear fuel cycle and is prevented from being used for any military or explosive purpose, or in any other way contrary to Australia's international treaty obligations.

Specifically, the bilateral safeguards agreements require that Australia's consent be obtained for the re-transfer, high enrichment (over 20 per cent) or reprocessing of Australian uranium. They also provide for the application of International Atomic Energy Agency (IAEA) safeguards. Any material transferred remains subject to physical protection standards and fallback safeguards in the event that IAEA safeguards cease to apply. The material will also remain subject to safeguards for its full life or until there is agreement between both parties to remove it from the safeguards system.

The 1982 Agreement sets conditions that allow for long-term cooperative arrangements in the peaceful use of nuclear energy. It recognises the need for these arrangements to be made in a predictable and practical manner, taking into account the requirements of long-term nuclear energy programs as well as the shared objective of nuclear non-proliferation.

An Implementing Arrangement, attached to the 1982 Agreement, sets out details of how the Agreement will operate, including the facilities at which Japan may process, use or reprocess Australian nuclear material. These facilities are listed in the delineated and recorded Japanese Nuclear Fuel Cycle Program (DRJNFCP) attached to the Implementing Arrangement.

As the Japanese nuclear fuel cycle program is dependent on nuclear fuel cycle services, such as enrichment and fuel fabrication, being undertaken at facilities in third countries, the Implementing Arrangement provides for amendment of the DRJNFCP (sub-paragraph III.2). The first amendment was made in 1990 when two new facilities were added and the name of a listed Japanese research agency was changed. The second amendment was made in 1999 when two US facilities were added for the purpose of light water fuel fabrication.

At the annual Australia-Japan nuclear consultations in November 1999 Japan indicated it would seek to amend the DRJNFCP further. In June 2000 Japan passed us a Note Verbale seeking to add four facilities related to Mixed Oxide Fuel (MOX) fabrication for light water reactors to section 4.4 of the DRJNFCP as new sub-sections. This will be achieved through the proposed 2000 Amendment. The

facilities to be added are, Belgonucleaire's Dessel MOX Fabrication Plant (Belgium), Franco-Belge de Fabrication de Combustibles International's Dessel Plant (Belgium), Compagnie Generale des Matieres Nucleaires's MELOX Plant (France), and Compagnie Generale des Matieres Nucleaires's Cadarache Fuel Fabrication Utility (France).

MOX fuel is an integral part of the Japanese nuclear fuel program. There are, however, presently no European MOX fuel fabrication facilities listed in the Agreement meaning Japan would have to seek approval on a case by case basis if it intended to use a facility. The proposed amendment would allow Japan to use European MOX fuel fabrication facilities without seeking case by case approval from Australia, which would streamline the operation of the agreement for both Australia and Japan.

Obligations

The 2000 Amendment does not impinge on any of the overarching obligations of the 1982 Agreement; it merely expands their scope to include the European fuel fabrication facilities identified above.

The 1982 Agreement

The 1982 Agreement obliges the Contracting Parties to cooperate in the peaceful, non-explosive use of nuclear energy by encouraging cooperation between relevant organisations, through the exchange of experts and by facilitating the supply and exchange of unclassified information. (Article I)

It also stipulates that the provisions of the 1982 Agreement shall apply to nuclear material, equipment and sensitive technology transferred between Australian and Japan, whether directly or through a third country (Article II.1(a)). This material shall be subject to the Agreement only if the supplier Contracting Party has so notified the recipient Contracting Party in writing prior to the transfer (Article II.2) and shall be subject to the Agreement only when such items enter the jurisdiction of a Contracting Party. (Article II.3)

Article III of the 1982 Agreement states that this material, equipment and technology shall not be used for the development or the manufacture of nuclear weapons or other nuclear explosive devices, or be used in such a way as to further any military purpose. Article III also provides for the application of IAEA safeguards to this material, equipment or technology. In the unlikely event these safeguards were no longer applied, Article III.3 states that the Parties shall enter into an agreement for the application of a safeguards system which conforms to safeguards principles and procedures of the IAEA.

Article IV of the 1982 Agreement obliges the Contracting Parties to apply measures of physical protection to nuclear material subject to the Agreement in line with the guidelines set out in its Annex A. Annex A outlines the minimum

protection to be afforded nuclear materials subject to the Agreement, including controlling access to these nuclear materials and implementing appropriate transport precautions.

Article V of the 1982 Agreement stipulates that nuclear material, equipment and sensitive technology subject to the Agreement shall only be transferred beyond the jurisdiction of a Contracting Party with the prior written consent of the other, that such nuclear material shall only be reprocessed according to the conditions set out in Annex B of the Agreement and that material subject to the Agreement shall only be enriched beyond twenty per cent in the isotope uranium-235 according to conditions accepted in writing by both Contracting Parties (paragraph 1). The purpose of paragraph 1 is to ensure that these materials will not be used for the development of nuclear weapons or other nuclear explosive devices or in such a way as to further any military purpose (paragraph 2).

The 1982 Agreement also obliges each Contracting Party to consult promptly at the request of the other on matters arising out of the application of the Agreement, to inform the other upon request of the conclusions which the IAEA has drawn from its verification activities, to establish implementation procedures to ensure the effective fulfilment of the obligations of the Agreement and to take appropriate precautions to preserve the confidentiality of commercial, industrial and other secrets received as a result of the operation of the Agreement (Article VI) and not to use such information for commercial or industrial advantage. (Article V.2)

Articles VII to VIII of the 1982 Agreement outlines procedures if a Contracting Party fails to carry out the obligations of the Agreement, specifies dispute resolution mechanisms and provides definitions of some key terms.

The 2000 Amendment

The 2000 Amendment would oblige Australia to extend recognition to the European facilities being added to the DRJNFCEP with respect to the terms of the Agreement. The facilities listed in the DRJNFCEP are divided into eight categories:

1. Facilities for Conversion to UF₆ [uranium hexafluoride];
2. Facilities for Enrichment;
3. Facilities for Conversion to UO₂ [uranium oxide];
4. Facilities for Fuel Fabrication;
5. Facilities for Use of ANM [Australian Nuclear Material];
6. Facilities for Reprocessing;
7. Facilities for Storage of Separated Plutonium; and
8. Development and Demonstration Projects.

The proposed addition of four European facilities to Section 4, would oblige Australia to extend Australian approval to these facilities for the purpose of fuel fabrication for the Japanese nuclear industry using Australian nuclear material. This is the only additional obligation which would be placed on Australia by

conclusion of the 2000 Amendment. This obligation would be specified in sub-paragraph I (a) (i) of the Implementing Arrangement, which defines the DRJNFCP as that part of the "Japanese Nuclear Fuel Cycle Program" at which Australian nuclear material may be processed, used or reprocessed. Japan will be obliged to notify Australia of transfers of Australian material to these European facilities. Australian material transferred to Japan from these facilities shall be subject to the obligations of the 1982 Agreement.

Costs

The Australian Safeguards and Non-Proliferation Office (ASNO) is responsible for monitoring the implementation of safeguards agreements, including the one between Australia and Japan. No additional costs to Australia are anticipated as a consequence of this treaty action.

Future Protocols etc

The 2000 Amendment does not itself provide for future legally binding instruments. However, it is possible that at some point in the future Japan or Australia may wish to make further changes to the list of facilities in the DRJNFCP, as provided for in the Implementing Arrangement attached to the 1982 Agreement (sub-paragraph III.2).

Implementation

Australia's obligations under the 1982 Agreement have been implemented under the *Nuclear Non-Proliferation (Safeguards) Act 1987*.

No new legislation is involved in concluding the 2000 Amendment. No State and Territory action is involved and no changes to the existing role of the Commonwealth and the States and Territories are required as a consequence of implementing this treaty action.

Consultation

The proposed 2000 Amendment was notified to the States and Territories through the Standing Committee on Treaties' Schedule of Treaty Action. To date there has been no request for further information.

Following the completion of the Exchange of Notes on 1 August 2000, the Department of Foreign Affairs and Trade issued a media release providing details of the proposed amendment and contact details should further information be required.

Withdrawal or Denunciation

The 2000 Amendment does not specifically provide for withdrawal or denunciation. The 1982 Agreement, however, states that it shall remain in force for an initial period of thirty years, after which the Agreement may be terminated by either Contracting Party by providing six months' written notice to the other (Article XI). Nuclear material, material, equipment and sensitive technology which are subject to the Agreement at the time of its termination, shall remain

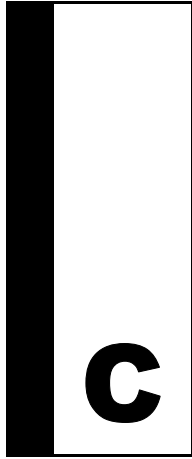
subject to the Agreement, or managed as otherwise agreed between the Contracting Parties.

Contact Details

Nuclear Trade and Security Section

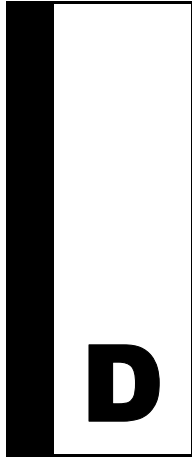
Nuclear Policy Branch, International Security Division

Department of Foreign Affairs and Trade



Appendix C - Submissions

**Agreement establishing an Implementing Arrangement to the
Agreement for Co-operation in the Peaceful Uses of Nuclear Energy**



Appendix D - Witnesses at Public Hearing

Monday, 28 August 2000, Canberra

Department of Foreign Affairs and Trade

Winfred Peppinck, Executive Director, Treaties Secretariat, Legal Branch

Attorney-General's Department

Stephen Bouwhuis, Senior Legal Officer, Office of International Law

Susan Downing, Senior Legal officer, Office of International Law

Agreement for Cooperation in the Peaceful Uses of Nuclear Energy

Andrew Leask, Assistant Secretary, Australian Safeguards and Non-Proliferation Officer, Department of Foreign Affairs and Trade

Robert Tyson, Assistant Secretary, Nuclear Policy Branch, Department of Foreign Affairs and Trade