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Submission by the Justice and International Mission Unit, Synod of Victoria and Tasmania, Uniting Church in Australia to the inquiry into *Agreement between the Government of Australia and the Government of India on Cooperation in the Peaceful Uses of Nuclear Energy (New Delhi, 5 September 2014)*

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The Uniting Church in Australia, Synod of Victoria and Tasmania welcomes the opportunity to make a submission to the inquiry on the *Agreement between the Government of Australia and the Government of India on Cooperation in the Peaceful Uses of Nuclear Energy (New Delhi, 5 September 2014).* The Synod opposes the agreement, especially as India has not become a States Party to the Nuclear Non-Proliferation Treaty (NPT).

In the view of the Uniting Church in Australia, the world must be rid of nuclear weapons. Nuclear weapons are unique in their ability to cause catastrophic human suffering, and to severely diminish the Earth's capacity to support all life

The Uniting Church has traditionally taken a very strong stance against the use and export of uranium. The Uniting Church in Australia supports the development of environmentally benign, renewable energy sources and the cessation of uranium mining.

Concerns about Safeguards in the Agreement

Despite the safeguards in the treaty to ensure that Australian uranium and nuclear technology can only be used for civilian purposes, our concern stems from the risks that uranium sales to India will facilitate nuclear weapons proliferation and undermine the existing international treaties aimed at preventing such proliferation and promoting nuclear weapons disarmament.

The Synod notes the concerns about the treaty that have been publicly expressed by John Carlson, who headed the Australian Safeguards and Non-Proliferation office for more than two decades until 2010. He wrote: "Now that the text of the agreement has been quietly made public, some substantial departures from Australia's current safeguards conditions are evident. These suggest, disturbingly, that Australia may be unable to keep track of what happens to uranium supplied to India."[1] India is not required to get Australia's ongoing

[1] Daniel Flitton, 'Nuclear deal with India lacks normal safeguards', *The Age,* 5 October 2014.

consent for use of plutonium from reprocessing spent fuel. Australia's usual demand that any breach of the agreement will automatically invoke a right to have the nuclear material returned is missing.[2] There is no formal dispute resolution mechanism within the agreement and no specified arbitration process in the case a dispute cannot be resolved by negotiation.

According to John Carlson:[3]

> *If India succeeds in delinking foreign-obligated nuclear material from individual bilateral agreements, making it impossible to identify which batch of material is covered by which agreement, then India could work a 'pea and thimble' trick in which no supplier could tell whether their material was being used contrary to bilateral conditions. The mere possibility of this is sufficient to call into question India's commitment to observing bilateral agreements.*

To date Australia's consent to reprocessing has been limited to the EU and Japan, and has been given on a programmatic basis, that is Australia has approved specific 'downstream' facilities using separated plutonium and the purposes involved. In this agreement, the Australian Government has effectively given consent in advance for India to reprocess in accordance with an 'arrangements and procedures' document India concluded with the US in 2010. This covers safeguards at two reprocessing plants that India plans to build, but includes only a vague reference to management of plutonium, and nothing corresponding to programmatic consent.[4]

The Australia Government's standard condition has been that, if for any reason IAEA safeguards cease to apply, the parties are to establish safeguards arrangements that conform with IAEA safeguards principles and procedures and provide equivalent assurance. This agreement requires only that the parties consult and agree on 'appropriate verification measures', a vague term readily open to differing interpretations.[5]

India has not committed to nuclear disarmament; still refuses to sign the Comprehensive Test Ban Treaty; continues to produce fissile material for weapons and to expand its nuclear weapons and missile programs more generally. India has not fully separated its military and civilian nuclear programs and some facilities are still dual purpose. India's safeguards agreement with the IAEA does not impose the same restrictions as bilateral agreements in areas such as reprocessing, higher enrichment, retransfers to third countries, research and development or the production of tritium (which has uses in nuclear weapons).[6] The deal struck between India and the US for uranium export to India does not preclude India building new, unsafeguarded reactors or other facilities for its weapons program.[7] The agreement allows the same Indian personnel to work on both India's civilian and military nuclear sectors. India is able to divert more of its own uranium to weapons with the US-India deal allowing India to increase its capacity to produce fissile material for nuclear weapons if it

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[2] John Carlson, 'Is the Abbott Government abandoning Australia's nuclear safeguards standards for India?', http://www.lowyinterpreter.org, 1 October 2014.
[3] John Carlson, 'Is the Abbott Government abandoning Australia's nuclear safeguards standards for India?', http://www.lowyinterpreter.org, 1 October 2014.
[4] John Carlson, 'Is the Abbott Government abandoning Australia's nuclear safeguards standards for India?', http://www.lowyinterpreter.org, 1 October 2014.
[5] John Carlson, 'Is the Abbott Government abandoning Australia's nuclear safeguards standards for India?', http://www.lowyinterpreter.org, 1 October 2014.
[6] John Carlson, 'Is the Abbott Government abandoning Australia's nuclear safeguards standards for India?', http://www.lowyinterpreter.org, 1 October 2014.
[7] The deal involves 14 reactors being subjected to IAEA safeguard inspections by 2014, of which six were already subject to safeguards. Eight power reactors, all its research reactors, the plutonium-fuelled fast breeder reactor program, reprocessing and enrichment facilities will remain beyond the scope of safeguards. India reserves the right to classify any future reactors as civilian or military (although supplier states can make sales contingent on the application of IAEA safeguards).

chooses to do so. Uranium exports from Australia to India would seem to only make that situation worse.

A uranium trade with India by the US and Australia seems likely to encourage Pakistan to seek greater nuclear trade with China. Further, Pakistan is reported to be building a fourth plutonium-producing reactor at the Khushab nuclear complex, as part of its nuclear arms race with India. In January 2011 the Pakistani permanent representative to the UN Conference on Disarmament, Zamir Akram, stated in response to the possibility of India being able to join the Nuclear Suppliers' Group that it: "will enable our neighbour to further expand upon its nuclear co-operation agreements and enhance its nuclear weapons and delivery capability. As a consequence, Pakistan will be forced to take measures to ensure the credibility of its deterrence."

Uranium trade with India undermines a fundamental principle of the global non-proliferation and disarmament regime. This is the principle that only signatories to the NPT can engage in international nuclear trade for their civilian nuclear programs. The precedent set by nuclear trade with India increases the risk of other countries pulling out of the NPT, and building nuclear weapons with the expectation that civilian nuclear trade would continue. It is important for Australia to send a consistent and clear message in its exporting of uranium.

During the 2010 NPT Review Conference, the 118 nations of the Non-Aligned Movement complained that the US-India agreement had given a non-NPT state more benefits than NPT parties and argued that comprehensive safeguards ought to be a requirement for nuclear supply.

India has a history of illicit nuclear procurement and inadequate nuclear export controls. It violated its promise to only use the Canadian supplied CIRUS research reactor for civilian purposes, when in 1974 it was used to produce plutonium for India's first nuclear weapons test. A US Congressional Research Service Report noted that in 2004 the US imposed sanctions on two Indian scientists for nuclear-related transfers to Iran.[8] In 2008, then International Atomic Energy Agency Director General, Mohamed El Baradei stated that the safeguards agreement with India did not provide for comprehensive or full-scope safeguards. Further the safeguards only apply to facilities notified by India, leaving India free to build new facilities for its weapon program.[9]

The Unit notes the legal opinion obtained by the International Campaign to Abolish Nuclear weapons (ICAN) that Australia is obligated by the South Pacific Nuclear Free Zone Treaty (SPNFZT) not to provide India with nuclear materials until such time as India has concluded a full-scope safeguards agreement.[10] The SPNFZT states that uranium sales by a party to the treaty to a 'non-nuclear-weapon state' must be subject to special safeguards required by Article III.1 of the NPT. These safeguards require the receiving nation to open up all of its nuclear facilities for inspection by the IAEA. India has not done so. India is considered a non-nuclear-weapon state under international law as the NPT defines 'nuclear-weapon state' as any state that manufactured and exploded a nuclear weapon before 1 January 1967. India did not develop nuclear weapons until later.[11] Australia has accepted that the SPNFZT applies to non-signatories of the NPT. For example, in debates on uranium sales to Taiwan in 1996, the Australian Government made it clear that the SPNFZT required Taiwan to

[8] Sharon Squassoni, "US Nuclear Cooperation with India: Issues for Congress", Congressional Research Service Report Number: RL33016, 26 June 2006.
[9] Mohamed El Baradei, 1 August 2008, Introductory Statement to the Board of Governors, <www.iaea.org/NewsCenter/Statements/2008/ebsp2008n006.html>
[10] ICAN, 'The illegality of selling Australian uranium to India', Briefing Paper, November 2011.
[11] ICAN, 'The illegality of selling Australian uranium to India', Briefing Paper, November 2011.

accept full-scope safeguards, even though Taiwan was not a party to the NPT.[12] Professor Donald Rothwell, from the Australian National University, stated:[13]

> *If India does not agree to Article III.1 Non-Proliferation Treaty safeguards and Australia were to export uranium to India, Australia would be in violation of its Treaty of Rarotonga obligations. If Australia's action were in breach of the Treaty, Australia could be exposed to the complaints procedure of Annex 4 of the Treaty initiated by other state parties to the Treaty of Rarotonga.*

Energy Needs for India

The Synod believes that India has choices to meet the energy needs for its people, without the planned expansion in nuclear power.

Indian's basic infrastructure has been described as "ramshackle".[14] It's widely accepted that 400 million people in India still lack reliable access to electricity.

Renewable resources in India promote energy security, are cheaper and less vulnerable to market fluctuations and can be utilised in a variety of ways, from small to large scale capacities. Renewable energy resources can help promote sustainable development, increase employment opportunities, particularly for the rural poor.[15] Solar energy, wind energy, hydropower, ocean energy, wave energy, geothermal energy, waste-to-energy and biomass power are all renewable energy options available in India.[16]

In terms of greenhouse gas emissions, India has alternatives available to it to avoid such emissions without expanding nuclear power generation. Leonard Weiss, former staff director of the US Senate Subcommittee on Energy and Nuclear Proliferation, has stated: "*India's Bureau of Energy Efficiency reports that, in the industrial sector alone, more efficient use of energy could conserve 15 GWe of electricity a year. Further improvements in end-use efficiency of household appliances could save another 3 – 5 GWe. That means an aggressive program of improved energy efficiency could substitute for all the future power output from nuclear reactors currently being planned in India between now and 2020."*

It has been argued that India's clean energy industry is booming and the country is best served by renewable energy sources such as wind, solar and small-scale hydropower. India added the equivalent of about 40% of Australia's installed electricity capacity in renewable power generation from 2010-2014, both cheaper and more efficient than coal-generated energy, particularly in the rural region.[17]

Dr Praveen Saxena, advisor to India's Ministry of New and Renewable Energy, states that "so far, renewable energy has only harnessed 12.2% of its estimated potential and that this should greatly increase by 2017. By then, it's expected that decentralised applications of solar, biogas, and solar cook stoves would be widespread; that energy access in rural areas would be a priority; that a new avenue of setting up microhydel projects based on the

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[12] ICAN, 'The illegality of selling Australian uranium to India', Briefing Paper, November 2011.
[13] ICAN, 'The illegality of selling Australian uranium to India', Briefing Paper, November 2011.
[14] OnEarth: 09/09/2014: *How to help the 400 million Indians without reliable power think small,* George Black: http://archive.onearth.org/articles/2014/09/how-to-help-the-400-million-indians-without-reliable-power-think-small
[15] WWF and The Energy and Resources Institute, "The Energy Report – India: 100% Renewable Energy by 2050", 2013 p. 21.
[16] WWF and The Energy and Resources Institute, "The Energy Report – India: 100% Renewable Energy by 2050", 2013 pp. 21, 26, 32, 35, 37, 38, 42, 45.
[17] http://www.theguardian.com/commentisfree/2014/oct/22/take-it-from-us-in-india-the-world-needs-renewables-not-more-australian-exported-coal

velocity of water on rivers/canals would emerge; that waste to energy would be a viable option; and that more applications of hydrogen/fuel cells would be developed."[18]

Concerns about Regulation of the Nuclear Power Industry in India

The Unit is greatly concerned that India lacks an independent nuclear regulatory mechanism with the mandate to ensure that high standards of safety and security are observed in India's civilian nuclear facilities.[19] Currently the Indian Atomic Energy Regulatory Board (AERB), established in 1983 through a gazette notification, is tasked with regulating the safety and security aspects of the country's civilian nuclear facilities. However, it is not an autonomous body as it depends on the Department of Atomic Energy for all practical purposes. It has, as a result, been unable to perform its regulatory functions effectively.[20]

The demand for India to establish a truly autonomous nuclear regulatory authority has been a long standing one. In 1997, the Raja Ramanna Committee report had recommended that the *Atomic Energy Act 1962* should be amended to enhance the effectiveness of the nuclear regulatory system in the country. Even though the Union Government, in 2000, had directed the Department of Atomic Energy to suggest the necessary amendments to the 1962 Act, nothing substantial happened for almost a decade.[21]

In 2011, the *Nuclear Safety Regulatory Authority (NSRA) Bill* was drafted by the Department of Atomic Energy and submitted to the Union Cabinet for approval. The Department of Atomic Energy note that sought approval from the Cabinet to introduce the Bill in Parliament had cited both the Mayapuri and the Fukushima accidents as the factors that contributed to the urgency to strengthen the country's nuclear regulatory mechanism. However, even the NSRA, as currently envisioned by the Department of Atomic Energy, does not propose the establishment of a truly autonomous regulatory authority. The Bill, first introduced in the Lok Sabha in 2011, has now lapsed and will have to be reintroduced in the new Lok Sabha.[22]

The Comptroller and Auditor General of India had undertaken a "Performance Audit on Activities of Atomic Energy Regulatory Board" which was tabled in Parliament in August 2012. It concluded that "the legal status of AERB continues to be that of an authority subordinate to the Central Government, with powers delegated to it by the latter", and recommended to the government to "ensure that the nuclear regulator is empowered and independent. For this purpose, it should be created in law and should be able to exercise necessary authority in the setting of regulations, verification of compliance with the regulations and enforcement of the same in the cases of non-compliance."[23]

Following the Comptroller and Auditor General report, the Public Accounts Committee of Parliament also produced a report in 2013 entitled "Activities of Atomic Energy Regulatory Board" in which it agreed with the view taken by the Comptroller and Auditor General on the functioning of the AERB. The PAC also highlighted the observation made by the Parliamentary Standing Committee on Science and Technology, Environment and Forests in 2012 that the NSRA lacks autonomy. The Public Accounts Committee was critical of the

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[18] cseindia.org/userfiles/Praveen_Saxena.pdf
[19] Assistant Professor Happymon Jacob, 'Regulating India's nuclear estate', http://happymon-jacob.blogspot.com.au/2014_08_24_archive.html, 30 August 2014.
[20] Assistant Professor Happymon Jacob, 'Regulating India's nuclear estate', http://happymon-jacob.blogspot.com.au/2014_08_24_archive.html, 30 August 2014.
[21] Assistant Professor Happymon Jacob, 'Regulating India's nuclear estate', http://happymon-jacob.blogspot.com.au/2014_08_24_archive.html, 30 August 2014.
[22] Assistant Professor Happymon Jacob, 'Regulating India's nuclear estate', http://happymon-jacob.blogspot.com.au/2014_08_24_archive.html, 30 August 2014.
[23] Assistant Professor Happymon Jacob, 'Regulating India's nuclear estate', http://happymon-jacob.blogspot.com.au/2014_08_24_archive.html, 30 August 2014.

functioning of the AERB as well as the proposed NSRA Bill and stated in its report that the "DAE should seriously re-examine the provisions of the Bill and take necessary steps urgently so as to ensure that the nuclear regulator becomes an independent and credible body at par with similar regulators in other Countries."[24]

The Council of Nuclear Safety to be established by the NSRA Bill – with the Prime Minister as the Chair and mostly government representatives as members – will have the power to appoint the chairperson and members of the new regulatory body. This will diminish the powers of the regulator since it will be subordinate to the Council chaired by the Prime Minister. The result will be a government-controlled regulator again. The NSRA Bill is explicit on the ability of the government to control the regulator: "the Central Government may, by notification, supersede the Authority for such period, not exceeding six months, as may be specified in the notification."[25]

The NSRA also does not say which facilities would be put under the new authority – currently, the AERB can only oversee the civilian facilities. The Bill states that "the Central Government may, for the purposes of national defence and security, exempt any nuclear material, radioactive material, facilities, premises and activities; the premises, assets and areas associated with material and activities from the jurisdiction of the Authority." So, the question is this: who will oversee the safety and security of the strategic facilities and programmes for which there is currently no regulatory authority? The Bill mentions that new regulatory bodies can be created to regulate the strategic programmes. The Department-related Parliamentary Standing Committee had recommended the creation of other bodies to do so. However, there has not been any movement so far on that front. Another issue is the exclusion of the NSRA from the purview of the *Right To Information Act*, thereby reducing the requirement for the regulator to be transparent.[26]

In short, India lacks a genuinely autonomous, transparent and accountable institution that is capable of regulating India's nuclear power sector.

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[24] Assistant Professor Happymon Jacob, 'Regulating India's nuclear estate', http://happymon-jacob.blogspot.com.au/2014_08_24_archive.html, 30 August 2014.
[25] Assistant Professor Happymon Jacob, 'Regulating India's nuclear estate', http://happymon-jacob.blogspot.com.au/2014_08_24_archive.html, 30 August 2014.
[26] Assistant Professor Happymon Jacob, 'Regulating India's nuclear estate', http://happymon-jacob.blogspot.com.au/2014_08_24_archive.html, 30 August 2014.