

Submission on:

**Non-Proliferation Legislation Amendment Bill 2006
Senate Foreign Affairs, Defence and Trade Committee
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Submission by:

Friends of the Earth, Australia

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Friends of the Earth would welcome the opportunity to appear before a Senate hearing on Non-Proliferation Legislation Amendment Bill 2006 to elaborate on issues raised in this submission.

Legitimate protest activity

Friends of the Earth, Australia (FoE) is concerned at the failure of the Non-Proliferation Legislation Amendment Bill 2006 to distinguish between legitimate protest activity and acts of terrorism or sabotage.

For example:

- * a protest against spent fuel shipments from Lucas Heights might involve activities captured under this proposed legislation and attracting severe penalties.
- * the Greenpeace action in 2001 which involved unauthorised entry into Lucas Heights effectively highlighted long-standing security failures at Lucas Heights and led to improved security. Yet it may have involved activities captured under this proposed legislation.

For example, might such activities potentially involve the offence of "obstructing or hindering an Agency inspector in the performance of a duty or function or exercise of a power" and as such attract two-years imprisonment?

FoE is concerned that the current Bill is in part a rerun of the so-called Non-Proliferation Amendment Act 2003, which was transparently aimed at harassing protesters and discouraging whistle-blowers.

As an example of the importance of whistle-blowers, little would be known about the scandalous 'clean up' of the Maralinga nuclear test site in the late 1990s if not for the courage of nuclear engineer Alan Parkinson (see articles at <www.geocities.com/jimgreen3>).

The so-called safeguards office ASNO

FoE asks the Committee to investigate the so-called Australian Safeguards and Non-proliferation Office (ASNO) and in particular its ongoing inability to distinguish truth from nuclear industry propaganda.

FoE notes that the Bill contains new provisions relating to the making of false or misleading statements. FoE asks the Senate Committee to consider whether ASNO's numerous false and misleading statements could lead to prosecution of ASNO under the new legislation. Failing that, FoE asks the Committee to consider amendments that would dissuade ASNO from its ongoing practice of disseminating false and misleading statements.

Concerns about ASNO have been raised previously by FoE, in the 2005-06 House of Representatives uranium inquiry. Instead of taking the criticisms on board and addressing them, the so-called safeguards office responded in a defensive and histrionic manner. It appears the only solution to this long-standing and deeply-rooted problem is to abolish the existing, so-called safeguards office ASNO and to replace it with a new, genuine safeguards office. As much institutional separation as possible ought to be established between the existing, so-called safeguards office and the new, genuine safeguards office; for example, the new office ought not have any connection to the Department of Foreign Affairs and Trade.

These are of course serious allegations against ASNO and they are not made lightly. Some of the supporting evidence is provided in the remainder of this submission.

ASNO on the risk of diversion of AONM

ASNO routinely states that the safeguarding of Australian-obligated nuclear materials (AONM) "ensures" or provides "assurances" that AONM will not contribute to weapons proliferation. This can easily be confirmed by a visit to ASNO's website <www.asno.dfat.gov.au>. For example:

* The risk of diversion of AONM is not acknowledged in a document linked from the front page of ASNO's website, "Australia's Uranium Export Policy", <www.dfat.gov.au/security/aus_uran_exp_policy.html>. That document asserts that

"Australia's uranium export policy ... provides assurances that exported uranium and its derivatives cannot benefit the development of nuclear weapons or be used in other military programs." Why no acknowledgement of the risk of diversion of AONM?

* That document links to another, "Australia's Network of Nuclear Safeguards Agreements", <www.dfat.gov.au/security/nuclear_safeguards.html>, which asserts that: "All of Australia's uranium is exported for exclusively peaceful purposes, and only to countries and parties with which Australia has a bilateral safeguards Agreement. These Agreements ensure that Australia's nuclear exports remain in exclusively peaceful use ..." Why no acknowledgement of the risk of diversion of AONM?

* That document links to an excerpt from the Australian Safeguards Office Annual Report 1998-99, <www.asno.dfat.gov.au/annual_report_9899/25_years.html>, which asserts that bilateral safeguards agreements "were established to ensure that nuclear items exported from Australia remain in exclusively peaceful use, and in no way enhance or contribute to any military purpose." Why no acknowledgement of the risk of diversion of AONM?

* The ASNO website links to the so-called Uranium Information Centre, which also fails to acknowledge the risk of diversion of AONM.

We can easily understand why the industry-funded Uranium Information Centre peddles this misinformation – it has a commercial interest in doing so. But what is ASNO's excuse? Is it a captured bureaucracy?

In short, the ASNO website is misleading on the crucial issue of the risk of diversion of AONM. ASNO should acknowledge on its website that there is a risk of diversion of AONM, and it should remove or modify statements which imply otherwise.

AONM is not fully accounted for

ASNO Director-General John Carlson (2002) says: "All Australian-obligated nuclear material [AONM], including plutonium, is fully accounted for." That is false. There are routine accounting discrepancies – called 'Material Unaccounted For'. What Carlson means is that ASNO has accepted all the various reasons given for MUF over the years, however fanciful those explanations may or may not be.

As Carlson (2005) stated in a submission to a House of Representatives uranium inquiry: "MUF certainly does not imply that AONM is missing. When ASNO concludes that all AONM is accounted for, this means, inter alia, that we are satisfied about the explanation for any MUF."

In other words, when ASNO says all AONM is fully accounted for, it means all AONM is *not* fully accounted for! Nukespeak.

It is agreed that MUF does not necessarily mean that diversion has occurred – the problem is that we cannot be certain that diversion of MUF has not occurred on each

and every occasion when there is a difference between recorded quantities and measured quantities, i.e. when there is MUF.

ASNO refuses to provide specific data on MUF discrepancies or even aggregate information. Nor has ASNO explained this secrecy.

South Korea

ASNO (letter, available on request) insists that South Korea did not use AONM in its long-standing secret nuclear weapons research program from 1979-2000. How can ASNO be sure? According to the letter, the answer is: because the South Koreans say so!

So we still do not know – and will probably never know – whether AONM was used in the South Korean secret nuclear weapons research program:

- * We have the assurance of South Korean authorities – which is worthless.
- * There could not possibly have been diversion before 1986 since there was no transfer of AONM to South Korea until 1986.
- * Carlson (2005) states in relation to post-1986 unauthorised activities that: "... the IAEA's investigations showed that the nuclear material used was produced from indigenous sources, Accordingly, ASNO is satisfied that no AONM was involved." But the IAEA appears to base its conclusions in part on "information provided by the ROK", so the argument becomes circular. Moreover, the claim that only indigenous material was used is false (see the paper by Kang et al. referenced immediately below).

For a detailed report on the South Korean unauthorised experiments and other activities, see Jungmin Kang, Peter Hayes, Li Bin, Tatsujiro Suzuki and Richard Tanter, 2005, "South Korea's nuclear surprise", Bulletin of the Atomic Scientists, January/February, Vol.61, No.01, pp.40-49, <www.thebulletin.org/article.php?art_ofn=jf05kang>.

See also Shaun Burnie, April 2005, "Proliferation Report: sensitive nuclear technology and plutonium technologies in the Republic of Korea and Japan", Greenpeace report, <www.greenpeace.org/international/press/reports/Proliferation-Korea-Japan>.

Nuclear power and nuclear weapons

Carlson (2000) states that "... in some of the countries having nuclear weapons, nuclear power remains insignificant or non-existent." Carlson's attempt to absolve civil nuclear programs from the proliferation problem ignores the well-documented use of civil nuclear facilities and materials in weapons programs as well as the important political 'cover' civil programs provide for military programs.

Of the ten states known to have produced nuclear weapons:

- * eight have nuclear power reactors.

* North Korea has no operating power reactors but an 'Experimental Power Reactor' is believed to have been the source of the fissile material (plutonium) used in the November 2006 nuclear bomb test, and North Korea has power reactors partly constructed under the Joint Framework Agreement.

* Israel has no power reactors, though the pretence of an interest in the development of nuclear power helped to justify nuclear transfers to Israel.

Nuclear power programs typically involve the construction of research/training reactors – which can be and have been used in weapons programs (e.g. India, Israel). Nuclear power programs sometimes involve the development of uranium enrichment plants – which can be and sometimes have been used to produce fissile material (highly enriched uranium) for weapons (e.g. apartheid South Africa, Pakistan). Power reactors are certainly used in support of India's nuclear weapons program – this is no longer in dispute since India is refusing to subject numerous power reactors to safeguards under the US/India nuclear agreement. The US itself is using a power reactor to produce tritium for use in nuclear weapons. Pakistan may be using power reactor/s in support of its nuclear weapons program. Then Prime Minister John Gorton certainly had military ambitions for the power reactor he pushed to have constructed at Jervis bay in NSW in the late 1960s – Gorton plainly stated that the intention was to generate both electricity as well as plutonium in case the plutonium was required for weapons.

Carlson's view also sits uncomfortably with the concentration of nuclear power in weapons states – almost 60% of global nuclear power output (in GWe) is in the five declared weapons states and those power programs involve large numbers of nuclear scientists, technicians, engineers etc with frequent transfer to and from nuclear WMD programs.

In short, Carlson's attempt to distance nuclear power programs from weapons proliferation is disingenuous.

Likewise, Carlson (2000) says: "If we look to the history of nuclear weapons development, we can see that those countries with nuclear weapons developed them before they developed nuclear power programs." However, ostensibly civil nuclear programs clearly preceded and facilitated the successful development of nuclear weapons in India, Pakistan, and in the former nuclear weapons state South Africa.

Carlson states: "I have pointed out on numerous occasions that nuclear power as such is not a proliferation problem – rather the problem is with the spread of enrichment and reprocessing technologies, particularly through the black market." (27/11/06, <www.aph.gov.au/house/committee/jsct/8august2006/subs2/sub30_2.pdf>). But of course enrichment and reprocessing facilities are ostensibly built in support of nuclear power programs, so again Carlson's attempt to absolve nuclear power reactors from the proliferation problem is disingenuous. Construction of enrichment plants is very difficult or impossible to justify in the absence of power reactors requiring enriched

uranium fuel (much smaller quantities are required to fuel research reactors). Reprocessing plants are entirely benign in the absence of reactor-produced fissile material (plutonium or uranium-233) or highly-enriched uranium contained in irradiated materials.

Plutonium grades

Statements by Carlson/ASNO about the weapons useability of below-weapon-grade plutonium grossly distort the available scientific evidence and can only be seen as an attempt to promote uranium exports and to absolve governments and uranium mining companies of their culpability in increasing the global stockpile of weapons-useable plutonium. (For a detailed discussion on the use of reactor grade or fuel grade plutonium in nuclear weapons, and references to the scientific literature, see www.geocities.com/jimgreen3/rgpu.html.)

Carlson (2002) states that Australian-obligated plutonium is not weapon-grade but he fails to note that below-weapon-grade plutonium can be – and has been – used in nuclear weapons. Further, weapon-grade plutonium is produced using Australian uranium – in the normal course of events this WGPu is produced in power reactors and in the normal course of events it is converted to fuel grade then reactor-grade plutonium in the reactor. It is misleading for Carlson to state that Australian-obligated plutonium is not weapon-grade without noting that below-weapon-grade plutonium can be and has been used in nuclear weapons.

Carlson (2002) says "weapons-grade plutonium is not produced in the normal operation of power reactors" though he knows it is and he knows that below-weapon-grade plutonium has been used in weapons (see above).

Further, research reactors can be used to produce plutonium in support of a weapons program. Israel and India are the most notorious examples of 'research' reactors being used for this purpose (most or all of the fissile material for their nuclear arsenals comes from research reactors). (Detailed paper at: www.geocities.com/jimgreen3/rrweapons.html.)

IAEA safeguards

Carlson (2002) defends the International Atomic Energy Agency's safeguards system and says it provides the "foundation" for preventing misuse of Australian-obligated nuclear materials. The safeguards system was exposed as a farce by the Iraqi regime in the 1980s and early '90s – see the voluminous material on this scandal published in the Bulletin of the Atomic Scientists over the past decade (www.thebulletin.org). Since the Iraq debacle, efforts have been made to improve the system, but it still inadequate (and the IAEA is still hopelessly compromised by its other mandate – promoting the spread of nuclear technologies).

Despite Carlson's (2005) assertion to the contrary, Friends of the Earth is not alone in considering the traditional safeguards system to be inadequate – indeed the Director General of the IAEA has stated that: "Without the expanded authority of this protocol [Additional Protocols], the IAEA's rights of inspection are fairly limited." (El Baradei, Mohamed, 2005, "Curbing the Nuclear Threat", February 2, <www.iaea.org/NewsCenter/Statements/2005/ebsp2005n001.html>).

The limitations of safeguards are detailed in a series of papers collated by FoE: Nuclear Safeguards and Australia's Uranium Exports, <www.foe.org.au/nc/nc_nuke.htm> or direct download: <www.foe.org.au/download/UraniumSafeguards.doc>.

The IAEA has two roles – promoting the peaceful uses of atomic energy, and preventing weapons proliferation. Since the materials and facilities required for peaceful nuclear research and power programs can be and have been used for nuclear weapons R&D and in some cases full-blown weapons production, the IAEA's two roles can be described as: trying to prevent weapons proliferation while actively promoting the expanded use of materials and facilities which can in many cases be used for nuclear weapons research and/or production. The contradiction is obvious notwithstanding Carlson's (2005) comments about the two roles being "complementary" rather than "inconsistent".

Membership of the Board of Governors of the IAEA is weighted in favour of countries with significant nuclear programs. Carlson (2005) fails to see the problem arising from that weighting. The problem is that countries with significant nuclear programs may have reasons, e.g. commercial reasons, to downplay the proliferation risks associated with civil nuclear programs. SA Premier Mike Rann's observation is pertinent: "Again and again, it has been demonstrated here and overseas that when problems over safeguards prove difficult, commercial considerations will come first."

A typical piece of ASNO propaganda is its supplementary submission 30.2 to the JSCOT 'inquiry' into uranium sales to China (27/11/06, <www.aph.gov.au/house/committee/jsct/8august2006/subs2/sub30_2.pdf>). ASNO strongly implies that the Iraqi nuclear weapons program from the 1970s-1991 involved only undeclared facilities, yet there is abundant evidence of safeguarded facilities being used in the program. ASNO ought to be correcting self-serving nuclear industry propaganda, not promulgating it.

Uranium customer countries

Carlson (1998) makes the absurd claim that: "One of the features of Australian policy ... is very careful selection of our treaty partners. We have concluded bilateral arrangements only with countries whose credentials are impeccable in this area." Carlson's claim is demonstrably false:

1. The US is breaching its NPT disarmament commitments in many ways: refusing to ratify the Comprehensive Test Ban Treaty; making a mockery of the proposed Fissile Material Cut-Off Treaty by blocking any inspection or verification measures; engaging in research on new generations of nuclear weapons; indicating that it might begin nuclear weapons testing again; resuming the production of tritium for use in nuclear weapons, and using a 'civil' power reactor to produce the tritium; acknowledging in its Nuclear Posture Review that it intends to maintain its nuclear arsenal "forever"; embarking on nuclear co-operation with India (a non-NPT state); threatening first-use nuclear strikes; and developing a nuclear hit-list of seven states, all of them NPT member states except North Korea, and five of them non-nuclear weapons states.

The disgraceful role of the US, and its manifold breaches of its NPT obligations, have been ignored by the Australian government. Successive Australian governments have claimed that the US is in compliance with its NPT obligations because of the reduction in the number of nuclear weapons. But even that solitary achievement is largely a function of creative accounting "worthy of Enron" according to the US Natural Resources Defense Council.

2. France and the UK are also customers of Australian uranium and, like the US, neither country has the slightest intention of fulfilling its NPT disarmament obligations.

3. Japan, a major customer of Australian uranium, has developed a nuclear 'threshold' or 'breakout' capability – it could produce nuclear weapons within months of a decision to do so, relying heavily on facilities, materials and expertise from its civil nuclear program. An obvious source of fissile material for a weapons program in Japan would be its stockpile of plutonium – including Australian-obligated plutonium. In April 2002, the then leader of Japan's Liberal Party, Ichiro Ozawa, said Japan should consider building nuclear weapons to counter China and suggested a source of fissile material: "It would be so easy for us to produce nuclear warheads; we have plutonium at nuclear power plants in Japan, enough to make several thousand such warheads."

4. South Korea is another major customer of Australian uranium with less than impeccable credentials. In 2004, South Korea disclosed information about a range of activities which violated its NPT commitments – uranium enrichment from 1979-81, the separation of small quantities of plutonium in 1982, uranium enrichment experiments in 2000, and the production of depleted uranium munitions from 1983-1987.

5. China. The federal government has negotiated a bilateral treaty with China to permit uranium sales. China is a nuclear weapons state with no intention of fulfilling its NPT disarmament obligations, and it refuses to ratify the Comprehensive Test Ban Treaty. Further, the Chinese state is undemocratic and repressive. It is difficult to imagine a nuclear industry worker in China publicly raising safety, security or proliferation concerns without reprisal. It is a closed, secretive state – which makes safeguarding AONM all the more difficult. China is included in the US's Nuclear Posture Review hit-

list because of the "ongoing modernization of its nuclear and non nuclear forces" and its "still developing strategic objectives".

6. India. Following the US decision to engage in nuclear co-operation with India, two Australian government ministers (Macfarlane and Campbell) are now arguing for uranium sales to India. But India is outside the NPT/IAEA regime altogether. Allowing nuclear co-operation and uranium sales to India would clearly weaken the NPT. Potential nuclear weapons states – in north-east Asia or the Middle East, for example – would be all the more likely to 'go nuclear' if civil nuclear co-operation and trade with non-NPT states were to become the norm. Civil nuclear trade is important to a number of states such as Japan, with significant uranium demand but limited indigenous supplies.

Nuclear weapons states

Carlson (2005) states that it is "not plausible" that a non nuclear weapons state would seek nuclear weapons because the nuclear weapons states are not meeting their NPT commitments. Why not? IAEA Director General Dr. Mohamed El Baradei said in 2005: "[W]e must show the world that our commitment to nuclear disarmament is firm. As long as some countries place strategic reliance on nuclear weapons as a deterrent, other countries will emulate them. We cannot delude ourselves into thinking otherwise." (<www.iaea.org/NewsCenter/Statements/2005/ebsp2005n006.html>)

So by the logic of no less an authority than Dr. Mohamed El Baradei – Nobel Peace Prize winner and IAEA Director General – John Carlson is deluded. All the more reason to abolish the so-called Australian Safeguards and Non-proliferation Office and to replace it with a genuine safeguards office, separate from the Department of Foreign Affairs.

References

Anon., November 12, 1990, "Blix Says IAEA Does Not Dispute Utility of Reactor-Grade Pu for Weapons," Nuclear Fuel, p.8.

Blix, H., November 1, 1990, Letter to the Nuclear Control Institute, Washington DC.

Carlson, John, December 21, 1998, Evidence before Joint Committee on Treaties, <www.aph.gov.au/hansard/joint/commttee/j2022.pdf>.

Carlson, John, November 15, 2002, Australian Financial Review, Letter to the Editor. <www.geocities.com/jimgreen3/uraniumbombs.html>

Carlson, John, 2000, "Nuclear Energy and Non-proliferation – Issues and Challenges: An Australian Perspective", Paper prepared for JAIF Symposium on Peaceful Uses of Nuclear Energy and Non-Proliferation, Tokyo, 9-10 March 2000.

Carlson, John, 2005, supplementary submission 33.1 to □House Standing Committee on Industry and Resources, Inquiry into developing Australia's non-fossil fuel energy industry, <www.aph.gov.au/house/committee/isr/uranium/subs.htm> or direct download: <www.aph.gov.au/house/committee/isr/uranium/subs/sub33_1.pdf>.

Koutsoukis, Jason, November 9, 2002, "Has anybody seen Australia's uranium?", Australian Financial Review, pg. 21.