

URANIUM, SAFEGUARDS & WEAPONS PROLIFERATION

Anti-nuclear & Clean Energy (ACE) Campaign
Friends of the Earth, Australia
www.foe.org.au/anti-nuclear



One of the biggest dangers facing the world is that posed by nuclear weapons. The international 'safeguards' system led by the International Atomic Energy Agency (IAEA) is meant to protect against the misuse of 'peaceful' facilities and materials for weapons production. However the IAEA does not have the authority or resources to adequately carry out its safeguards role. The cornerstone of IAEA safeguards involves physical inspections of nuclear plants, but these inspections are at best periodic and partial and at worst non-existent.

The former Director-General of the IAEA, Dr Mohamed El Baradei, is frank about the limitations of safeguards. He has noted that the IAEA's basic rights of inspection are "fairly limited", that the safeguards system suffers from "vulnerabilities" and "clearly needs reinforcement", that efforts to tighten the system have been "half hearted" and that the safeguards system runs on a "shoestring budget ... comparable to a local police department."

The IAEA relies on voluntary funding for 90% of its nuclear security program, 30% of its nuclear safety program, and 15% of its verification/safeguards program. Dr El Baradei said in 2006: "Everybody says nuclear terrorism is the number one national and international security issue. But until they translate this grandstanding statement into dollars and cents, we will not be able to deal effectively with the danger we are facing."

The IAEA's safeguards program is chronically underfunded even while the scale of the challenge steadily increases. The IAEA is responsible for safeguarding enough fissile material to build over 160,000 nuclear weapons (some put the figure as high as 300,000 weapons).

A major problem is Material Unaccounted For (MUF), one of many examples being the revelation in February 2005 that 29.6 kgs of plutonium at BNFL's Sellafield plant in the UK was unaccounted for. Invariably nuclear bodies insist that the problem is simply an accounting error and no material has been misplaced or stolen. Such claims are dishonest: no-one can be certain of the correct explanation for MUF. It is further noted by industry bodies and compliant regulators

that MUF is commonplace – but this is hardly comforting!

The IAEA has no mandate to prevent the use of 'peaceful' nuclear facilities and materials for weapons production. At best, the IAEA detects diversion and then the matter is passed to the UN Security Council and to the realms of international diplomacy more generally. Responses to suspected non-compliance with safeguards agreements have been highly variable, ranging from inaction to the imposition of economic sanctions to UN Security Council-mandated decommissioning programs. Numerous examples illustrate how difficult and protracted the resolution (or attempted resolution) of such issues can be, e.g. North Korea, Iran, Iraq in the 1970s and Iraq again in the early 1990s.

There is no resolution in sight to some of the most fundamental problems with the safeguards system. These problems include the ability of countries to pull out of the Nuclear Non-Proliferation Treaty (NPT) and to then develop a weapons capability as North Korea has done. That risk has increased with the decision of some countries – including the US and Australia – to open up nuclear trade with India, a nuclear weapons state outside the NPT.

Some states prefer to take matters into their own hands rather than rely on the safeguards system. Israel bombed and destroyed a nuclear reactor in Iraq in 1981. The US bombed and destroyed a reactor in Iraq in 1991. Israel bombed and destroyed a suspected reactor site in Syria in 2007.

Australia setting new lows

The Australian uranium industry and its promoters routinely claim that safeguards "ensure" that Australian-Obligated Nuclear Materials (AONM – primarily uranium and its by-products) will not be used in nuclear weapons. However Australia has no authority or capacity to safeguard our uranium exports – we are entirely reliant on the limited and under-resourced safeguards system of the IAEA.

Australia continues to set new lows. In 2006, the Howard Government (with Labor Opposition support) agreed to export uranium to China – an undemocratic,

secretive state with an appalling human rights record. In 2010, Labor and the Coalition agreed to permit uranium sales to Russia despite the fact that not a single facility in Russia had been subjected to IAEA safeguards inspections since 2001. The Joint Standing Committee on Treaties said that uranium sales to Russia should not proceed unless and until "IAEA inspections are implemented for Russian facilities that will handle Australian Obligated Nuclear Materials." That common-sense recommendation was rejected by the Government.

Australia sells uranium to nuclear weapons states, dictatorships, countries with a history of secret weapons-related research, countries blocking progress on the Comprehensive Test Ban Treaty and the proposed Fissile Material Cut-Off Treaty.

Another problem tracking AONM is the scale and complexity of the undertaking. AONM exists in many forms (uranium, depleted uranium, enriched uranium, separated and unseparated plutonium, etc) in many locations. According to ASNO's 2011-12 Annual Report, AONM held abroad amounts to over 171,000 tonnes including 110,000 tonnes of depleted uranium and 148 tonnes of plutonium (enough plutonium to build about 15,000 nuclear weapons).

The claim that Australia's uranium exports are subject to the most stringent safeguards of any uranium exporting country is false. There are some useful clauses in the bilateral agreements – such as requirements for prior consent before reprocessing or enrichment beyond 20% uranium-235. However permission to reprocess spent fuel (thereby separating plutonium) has never once been denied even when it leads to plutonium stockpiling.

Recommendations to strengthen safeguards

1. The IAEA's safeguards/verification program is seriously and chronically underfunded. The Australian Government should take the lead to ensure that this problem is rectified.
2. Basing the IAEA safeguards system on periodic inspections is inadequate. A minimum requirement ought to be that all nuclear facilities of proliferation significance have IAEA inspectors permanently stationed on-site.
3. The promotion of nuclear power should be removed from the IAEA's mandate.
4. Safeguards should apply at all stages of the nuclear fuel cycle. Currently safeguards begin at the uranium enrichment stage.
5. Action needs to be taken to address the stockpiling of ever-growing amounts of plutonium. The

separation of plutonium from spent fuel at reprocessing plants exceeds the limited use of separated plutonium as fuel in nuclear reactors. As of 2015 the stockpile of separated civil plutonium is 260+ tonnes (sufficient for 26,000 weapons). The problem can easily be addressed by stopping or suspending reprocessing.

6. All nuclear facilities processing Australian uranium (and its by-products such as plutonium) ought to be subject to IAEA inspections. Currently, exceptions are made for the flimsiest of reasons.
7. Important information about safeguards is kept secret by the Australian Government and there is a compelling case for greater transparency.
8. The Australian Government should prohibit the enrichment of Australian uranium to >20% uranium-235 (highly enriched uranium) under any circumstances.
9. A credible safeguards regime for Australia's uranium exports depends on having a credible safeguards agency. However the Australian Safeguards and Non-proliferation Office has a poor track record and an independent public inquiry is urgently needed.

More information on the flawed 'safeguards' system

- Links to useful reports, websites etc.: foe.org.au/anti-nuclear/links#safeguards
- Friends of the Earth: foe.org.au/anti-nuclear/issues/oz/u/safeguards
- Medical Association for Prevention of War, "An Illusion of Protection", www.mapw.org.au/nuclear-chain/safeguards
- Henry Sokolski (ed.), Feb 2008, "Falling Behind: International Scrutiny of the Peaceful Atom", www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubID=841
- EnergyScience Coalition, 'Who's Watching the Nuclear Watchdog? A Critique of the Australian Safeguards and Non-proliferation Office', 2007, Briefing Paper #19, www.energyscience.org.au/

