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House of Representatives Parliamentary Uranium Inquiry

Second Supplementary Submission by Friends of the Earth, Australia

Acronyms:

- * AONM - Australian obligated nuclear materials
- * ASNO - Australian Safeguards and Non-proliferation Office
- * ASO - Australian Safeguards Office
- * DG ASNO - Director-General of the Australian Safeguards and Non-proliferation Office
- * FoEA - Friends of the Earth, Australia
- * MUF - Material Unaccounted For

Introduction

This supplementary submission by Friends of the Earth, Australia (FoEA) responds to submission 33.1 written by John Carlson, Director-General of the Australian Safeguards and Non-proliferation Office (DG ASNO), dated 18 November 2005, which is on the internet at:

<www.aph.gov.au/house/committee/isr/uranium/subs/sub33_1.pdf>.

The DG ASNO submission, in particular the first half of the submission, is primarily a critique of FoEA's first supplementary submission, which is on the internet at:

<www.aph.gov.au/house/committee/isr/uranium/subs/sub52_1.pdf>.

FoEA's initial submission is on the internet at:

<www.aph.gov.au/house/committee/isr/uranium/subs/sub52.pdf>.

Page 1 of DG ASNO's submission.

DG ASNO takes offence at criticisms made of ASNO yet DG ASNO implies that FoEA is dishonest in failing to openly acknowledge our alleged position that (in ASNO's words) "there should be no international cooperation on nuclear science and technology". The reason that FoEA does not openly acknowledge that position is that FoEA does not subscribe to it. DG ASNO (falsely) accuses FoEA of 'verballing' ASNO yet as the above example illustrates, DG ASNO has engaged in a clear-cut case of 'verballing'. FoEA is opposed to nuclear weapons and FoEA is opposed to nuclear power for a range of proliferation, environmental and public health reasons. Those policies do not amount to blanket opposition to nuclear science and technology - indeed FoE has strongly and consistently advocated expanded development of atom-smashing nuclear technologies such as particle accelerators for medical and scientific applications.

FoEA rejects DG ASNO's allegations of being disrespectful and irresponsible. The remainder of this supplementary submission will focus on technical issues and the arising public policy issues and will ignore false allegations of 'verballing' and other such claims made by DG ASNO.

DG ASNO has said "All Australian-obligated nuclear material, including plutonium, is fully accounted for." (15/11/02, Australian Financial Review, <www.geocities.com/jimgreen3/uraniumbombs.html>.) In fact discrepancies are common (as discussed below) and DG ASNO's statement is clearly false. All that can be said is that to date, ASNO has always been satisfied with the explanations given for discrepancies. Accepting the explanations given for discrepancies cannot be equated with full accounting.

Pages 1-2 of DG ASNO's submission.

DG ASNO notes that: "... of course it is possible diversion might occur in the future, though Australia's policies and practice on uranium supply seek to minimise this risk."

ASNO and FoEA are in agreement as to the possibility of future diversion. If ASNO is implying that there has been no past diversion, unfortunately the possibility of past diversion cannot be entirely discounted.

As FoEA has previously observed, ASNO sometimes states and frequently implies that the safeguarding of Australian-obligated nuclear materials (AONM) is flawless. This observation can easily be confirmed by a visit to ASNO's website.

It is unusual for ASNO to acknowledge the possibility of diversion of AONM, as DG ASNO does in this submission. Indeed that is one of FoEA's major criticisms of ASNO. 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 ASO 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 industry-funded Uranium Information Centre, which fails to acknowledge the risk of diversion of AONM.

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

Material Unaccounted For (MUF):

* DG ASNO states that: "ASNO does not "concede" that MUF has occurred ..." A 22/7/05 letter from ASNO (available on request) states: "Every year inventory reports involving bulk material will include a component of MUF." And the DG ASNO submission #33.1 itself states: "MUF is a normal occurrence in the verification of nuclear accounts." So, whether it is a concession or simply an observation, there is agreement that MUF is commonplace.

* As DG ASNO states: "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." It is agreed that MUF does not necessarily mean that diversion has occurred (and FoEA has not stated otherwise). 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 states: "ASNO's conclusions on the peaceful use of AONM are not based solely on reporting under Australia's bilateral agreements." No-one has stated or implied that ASNO's conclusions were solely based on reporting under Australia's bilateral agreements.

Page 2 of DG ASNO's submission.

South Korea.

"FOE's assertion that the ROK has a nuclear weapons research program is unsubstantiated. When the unauthorised nuclear experiments carried out by ROK scientists were reported to the IAEA Board of Governors, the Board concluded that these activities did not amount to non-compliance with the ROK's safeguards agreement. In other words, the Board did not consider that the activities constituted evidence of efforts to develop nuclear weapons."

However the IAEA Director General has said that "[T]he quantities of nuclear material involved have not been significant. Nonetheless, given the nature of the activities, the failure of the ROK to report these activities in accordance with its safeguards agreement is - as I said to the Board in September - a matter of serious concern." (25.11.04, <www.iaea.org/NewsCenter/Statements/2004/ebsp2004n016.html>)

So the activities were of "serious concern". Since the activities were carried out on a small scale, it is unlikely that they were part of a systematic effort to build nuclear weapons but they certainly indicated an interest in the military uses of nuclear energy and a related willingness to conduct unauthorised experiments and activities. It is quite reasonable to describe the unauthorised activities as a secret nuclear weapons research program as FoEA has done. The extent to which government authorities were aware of and/or directing the unauthorised activities is impossible to ascertain with any confidence.

Note that the IAEA Director General bases his final conclusion in part on "information provided by the ROK". Likewise, ASNO (22/7/05 letter) states that: "ASNO has been assured by ROK authorities that AONM was not used in unauthorised nuclear activities, and this is substantiated by the IAEA's investigations."

Partial reliance on statements made by South Korean authorities raises the obvious problem that their credibility is under a cloud. The unauthorised activities were carried out over a period of over two decades and persisted up until the year 2000 (if not later).

As to whether AONM might have been used in South Korea's unauthorised nuclear activities:

- * We have the assurance of ROK authorities, for what little that is worth.
- * There could not possibly have been diversion before 1986 (no-one has suggested otherwise), since there was no transfer of AONM to South Korea until 1986.
- * DG ASNO 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 would appear to base its conclusions in part on "information provided by the ROK" (see above), so the argument becomes circular. Does the factual evidence support ASNO's confidence?

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>.

Here is the list of nondisclosures copied from the report by Kang et al.:

South Korea's nuclear nondisclosures

AVLIS enrichment (1991-2000)

- * Did not declare use of indigenously produced natural uranium metal for evaporative, spectroscopic, and enrichment experiments
- * Did not declare facilities where experiments conducted
- * Did not declare facilities and equipment design information

Uranium conversion (1982-1994)

- * Did not declare uranium extraction from imported fertilizer and indigenous uranium ore
- * Did not account for material losses and wastes from uranium processing
- * Did not declare depleted uranium activities using imported depleted uranium
- * Did not declare design information for natural uranium processing facilities and depleted uranium metal production

Plutonium separation (1981-1982)

- * Did not declare irradiation of miniature fuel assembly
- * Did declare a false report as to location of miniature fuel assembly and timing of its irradiation
- * Did not declare hot cell where plutonium was separated, nor design or fate of separation equipment
- * Did not declare plutonium separation, transfer, and disposition of waste, nor use of results of experiment

Chemical enrichment (1979-1981)

- * Did not disclose chemical uranium enrichment experiment although the natural uranium involved was under International Atomic Energy Agency safeguards

Page 3 of DG ASNO's submission.

The issue here is the contribution of nuclear power programs and civil nuclear programs more generally to proliferation risks.

ASNO states: "Of course nuclear weapons programs don't come out of thin air, they are supported by nuclear facilities necessary for producing the required fissile materials, and these have included so-called research reactors — India being an obvious example."

There are many examples other than India. Suffice it to add that these military programs have on numerous occasions used personnel, materials and facilities from ostensible peaceful nuclear power and nuclear research programs. The ASNO submission goes on at some length about various nuclear weapons programs but does not contest the historical truth that ostensibly peaceful nuclear power and nuclear research programs have provided personnel, materials and/or facilities for military R&D in numerous countries and for full-scale nuclear weapons production in several countries.

DG ASNO states (top of page 4): "The examples pointed to by FOE do not substantiate their claim that nuclear power programs support military programs." On the contrary, the examples support the conclusion that supposedly peaceful nuclear research and nuclear power programs have provided personnel, materials and/or facilities for military R&D in numerous countries. As Justice R.W. Fox noted in to the SA Select Committee of the Legislative Council on Uranium Resources in the 1980s: "It has been said (and it was said at the Ranger Inquiry) that civil nuclear energy was never used for the production of nuclear weapons and never has been. I do not think that was accurate at the time it was said, for reasons I have indicated. I think there is an increasing likelihood that the civil industry will at least to some extent contribute. One reason for that is that most countries that develop nuclear weapons will want to do so in a clandestine way."

DG ASNO wants to reduce the broad issue of military use of 'peaceful' nuclear questions to consideration of nothing other than power reactors. he does not mention the direct use of nuclear power reactors for plutonium production, for example this is suspected in India and possibly Pakistan, the North Korean 'Experimental Power Reactor' is relevant, and the US and the UK have successfully tested nuclear WMD using plutonium produced in power reactors.

Further, power reactors need not be directly implicated for a nuclear power program to provide cover for the production of nuclear WMD. For example, South Africa and Pakistan justified their enrichment programs with reference to the production of fuel for power reactors yet the plants were used to produce highly enriched uranium for WMD.

The relevant issues - including the links between nuclear research, power and weapons programs - are discussed in detail in the following reports:

* 'Nuclear Power: No Solution to Climate Change',

<www.melbourne.foe.org.au/documents.htm>.

* 'Research Reactors & Nuclear Weapons',

<www.mapw.org.au/nuclear-reactors/02green.html>.

Pages 4-5 of DG ASNO's submission.

Plutonium grades.

The US Department of Energy contends that the 1962 test used reactor grade plutonium, and obviously the US DoE is well aware of past and current classifications. Whether, using current classifications, the plutonium was reactor grade (as the US DoE asserts) or fuel grade (as De Volpi and others argue), it is commonly agreed that the plutonium was not weapon grade, i.e. below weapon grade plutonium can be and has been used in nuclear weapons (in the 1962 test, either or both of the Emu Field tests carried out in South Australia in the 1950s, and possibly elsewhere).

The DG ASNO submission appears to criticise FoEA for noting that "below-weapon-grade plutonium can be - and has been-used in nuclear weapons" yet the DG ASNO submission puts the same view: "... there are indications that it was of "fuel-grade" ..."

DG ASNO stated in 2002 that Australian-obligated plutonium is not weapon-grade. (15/11/02, Australian Financial Review, <www.geocities.com/jimgreen3/uraniumbombs.html>.) That unqualified statement would not be nearly so comforting if it was further noted that there is common agreement that below weapon grade plutonium can be and has been used in nuclear weapons. It is misleading 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 WMD.

Unfortunately the DG ASNO submission does not address the wealth of informed expert opinion regarding plutonium grades. The broad thrust of the US Department of Energy's position is supported by, among others:

- * An expert committee drawn from the major US nuclear laboratories (*Hinton, J.P., October 1996, "Proliferation Vulnerability", Red Team Report. Sandia National Laboratories Publication, SAND 97-8203, <www.ccnr.org/plute_sandia.html>.*)
- * Robert Seldon, of the Lawrence Livermore Laboratory. (*Seldon, R. W., 1976, Reactor Plutonium and Nuclear Explosives, Lawrence Livermore Laboratory, California.*)
- * J. Carson Mark, former director of the Theoretical Division at Los Alamos National Laboratory. (*Carson Mark, J., 1993, "Explosive Properties of Reactor-Grade Plutonium", <ccnr.org/Findings_plute.html>.*)
- * Matthew Bunn, chair of the US National Academy of Sciences' analysis of options for the disposal of plutonium removed from nuclear weapons. (*Bunn, M., June 1997, paper presented at International Atomic Energy Agency Conference, Vienna.*)
- * Prof. Marvin Miller, from the MIT Defense and Arms Control Studies Program, and the US DoE's Office of Arms Control and Nonproliferation (*both quoted in Dolley, Steven, March 28, 1997, Using warhead plutonium as reactor fuel does not make it unusable in nuclear bombs, <www.nci.org/i/ib32897c.htm>.*)
- * Steve Fetter (1999) from Stanford University's Centre for International Security and Cooperation. (*Fetter, Steve, 1999, "Climate Change and the Transformation of World Energy Supply", Stanford University - Centre for International Security and Cooperation Report, <cisac.stanford.edu/publications/10228>.*)

* the IAEA's Department of Safeguards (*Shea, T.E. and K. Chitumbo, "Safeguarding Sensitive Nuclear Materials: Reinforced Approaches", IAEA Bulletin, #3, 1993, p.23.*)

DG ASNO quotes himself (!) stating that: "While [the technical difficulties of using reactor-grade plutonium] could possibly be overcome, to some extent at least, by experienced weapons designers (e.g. from the nuclear-weapon states, with experience from hundreds of tests to draw upon), ASNO is not aware of any successful test explosion using reactor-grade plutonium, typical of light water reactor fuel".

DG ASNO would do better to quote someone with relevant scientific expertise and training, such as then IAEA Director General, Hans Blix: "On the basis of advice provided to it by its Member States and by the Standing Advisory Group on Safeguards Implementation (SAGSI), the Agency considers high burn-up reactor-grade plutonium and in general plutonium of any isotopic composition with the exception of plutonium containing more than 80 percent Pu-238 to be capable of use in a nuclear explosive device. There is no debate on the matter in the Agency's Department of Safeguards." (Blix, 1990; see also Anon., 1990)

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.

Further information at <www.geocities.com/jimgreen3/rgpu.html>.

Pages 5-6 of DG ASNO's submission.

FoEA has previously noted that the Iraq weapons program in the years leading up to the 1991 Gulf War exposed the severe shortcomings of the traditional (pre-Additional Protocols) safeguards system. Despite DG ASNO's assertion to the contrary, FoEA 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 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 DG ASNO's comments about the two roles being "complementary" rather than "inconsistent".

DG ASNO states: "To claim that the IAEA's responsibilities are inconsistent is in effect to argue there should be no international cooperation on nuclear science and technology. It would be more honest for FOE to state this position openly — doubtless FOE would oppose nuclear cooperation regardless of the organisation involved — rather than try to present it as an argument about conflict of interest."

Noting the obvious contradiction between the IAEA's dual roles is simply to state the obvious. FoE has strongly and consistently advocated expanded development of atom-smashing nuclear technologies such as particle accelerators, so DG ASNO's assertions and presumptions amount to ill-informed 'verballing'.

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

As FoEA noted in our first supplementary submission, and for the reasons explained there, Carlson's claim that all of Australia's uranium customer countries have an 'impeccable' record on disarmament and nonproliferation is absurd. Further to those comments:

Does ASNO consider the US record to be impeccable?! ASNO is of course aware of the US Nuclear Posture Review and a great deal of other evidence which makes it clear that the role of the US in nuclear disarmament and nonproliferation has been and remains anything but impeccable. This includes the US's refusal to ratify the Comprehensive Test Ban Treaty, making a mockery of the Fissile Material Cut-Off Treaty (and making plans to resume plutonium production), engaging in research on new generations of nuclear weapons, lowering the lead time for a resumption of nuclear weapons testing, continuing tritium production for nuclear weapons and using a 'peaceful' nuclear power reactor to produce this weapons material, publicly declaring its willingness to use nuclear weapons including first strikes and strikes against non nuclear weapons states, developing a hit-list of seven countries (detailed in the NPR) which includes five NPT signatories and five non nuclear weapons states (China, Russia, Libya, Syria, Iraq, Iran, North Korea), stating (in the NPR) that it intends to maintain its nuclear arsenal 'forever' which is a clear violation of NPT obligations, embarking on nuclear co-operation with NPT-renegade state India, and on and on it goes.

China is included in the US's NPR hit-list because of the "ongoing modernization of its nuclear and non nuclear forces" and its "still developing strategic objectives". Does ASNO concede that China's record on proliferation, disarmament and nuclear exports is anything but impeccable? Evidently not since ASNO has already been involved in Australia-China treaty negotiations.

The problematic role of the nuclear weapons states is a frequent complaint of the IAEA Director General and is discussed in most or all of the following references:

El Baradei, Mohamed, November 25, 2004, "Introductory Statement to the Board of Governors",

www.iaea.org/NewsCenter/Statements/2004/ebsp2004n016.html.

El Baradei, Mohamed, May 2, 2005, Statement to 2005 Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons,

www.iaea.org/NewsCenter/Statements/2005/ebsp2005n006.html.

El Baradei, Mohamed, 2005B, "Curbing the Nuclear Threat", February 2, www.iaea.org/NewsCenter/Statements/2005/ebsp2005n001.html).

El Baradei, Mohamed, 2005C, "Nuclear Terrorism: Identifying and Combating the Risks", March 16,

www.iaea.org/NewsCenter/Statements/2005/ebsp2005n003.html.

El Baradei has summed up the problem thus: "There are some who have continued to dangle a cigarette from their mouth and tell everybody else not to smoke."

Clearly the intransigence of some or all of the nuclear weapons states provides incentive and excuse for horizontal proliferation. The problem is no less important for ASNO's refusal to acknowledge it.

DG ASNO 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 ElBaradei said in 2005: "we 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." So by the logic of no less an authority than the Nobel Peace Prize winner and IAEA Director General, DG ASNO is deluded. All the more reason to support FoEA's call for radical reform of ASNO.

(Reference for Dr. ElBaradei's statement:

www.iaea.org/NewsCenter/Statements/2005/ebsp2005n006.html)

The DG ASNO submission states: "Japan has not breached any aspect of the NPT. Personal views in a US diplomatic cable in no way substantiate FOE's assertion that Japan is in breach of the NPT." FoEA did not assert that Japan is in breach of the NPT. FoEA argued that Japan could not possibly be said to have an "impeccable" record because of its plutonium policies generally and in particular its plutonium stockpile, and cited a March 1993 diplomatic cable from US Ambassador Armacost in Tokyo which lends strong weight to that view: "Can Japan expect that if it embarks on a massive plutonium recycling program that Korea and other nations would not press ahead with reprocessing programs? Would not the perception of Japan's being awash in plutonium and possessing leading edge rocket technology create anxiety in the region?"

Does DG ASNO seriously consider Japan's record to be "impeccable"?

Pages 7 onwards of DG ASNO's submission.

Most of the comments in the DG ASNO submission from page 7 onwards are not directed at FoEA so this submission will not address them.

DG ASNO disputes claims that since their inception under the Fraser Government, Australia's safeguards have been eroded because of commercial considerations. The weakening of safeguards during and since 1977 is documented in Professor Broinowski's book 'Fact or Fission'. Notwithstanding disputes between Broinowski and ASNO over some of the relevant points, it is indisputable that in some respects safeguards have been weakened since 1977. This is no less a problem for DG ASNO's apparent refusal to acknowledge it.

The weakening of safeguards was also detailed by Mike Rann, now SA Premier, in his 1982 book. Rann also noted the underlying reason: "Again and again, it has been demonstrated here and overseas that when problems over safeguards prove difficult, commercial considerations will come first."

Page 11 of DG ASNO's submission.

The use of Australian uranium exports could potentially free up indigenous sources of uranium for use in military programs in customer countries. This is an obvious risk, and no less a problem for ASNO's refusal to acknowledge it.

The problem is not so acute given the current policies of the declared nuclear weapons states in relation to fissile material production, but those policies could of course change, e.g. US plans to resume plutonium production outlined in the 2002 Nuclear Posture Review.

Two newspaper reports of a 2005 talk by China's ambassador to Australia, Madame Fu Ying, suggest that there is indeed competition between military and non-military uses of uranium in China:

"[Madame Fu Ying] confirmed China's plan to increase nuclear power in the nation's energy mix from 2 per cent to 4 per cent by 2020. China is a uranium producer itself but the production is consumed by the military. "There is certainly going to be the need to import uranium," she said."

Iron prices 'could hurt uranium deals'

www.theage.com.au/news/business/iron-prices-could-hurt-uranium-deals/2005/12/01/1133422047202.html

By Barry Fitzgerald

December 2, 2005

"As China ramps up its power capacity it is aiming to double the proportion sourced from nuclear energy to 4 per cent by 2010. While it has enough uranium resources to support its nuclear weapons program, Madame Fu said China would need to import uranium to meet its power demands."

China warning on uranium

The Australian p.21 (Business p. 1)

Andrew Trounson

December 02, 2005

<www.theaustralian.news.com.au/common/story_page/0,5744,17431566%255E643,00.html>

DG ASNO states that uranium can be recovered from seawater, but this may be economically prohibitive and in any case is not being undertaken anywhere in the world.

Page 12 of DG ASNO's submission.

DG ASNO states that neither Taiwan nor Yugoslavia have been found in non-compliance with their IAEA safeguards agreements. True, but both pursued nuclear weapons programs despite being IAEA/NPT signatories, as discussed in the relevant appendices at: www.mapw.org.au/nuclear-reactors/02green.html

DG ASNO wonders aloud whether it is FoEA policy that all nuclear activities should cease because of the risk of contributing to the proliferation of nuclear WMD. As noted previously, that is not FoEA policy. Suffice it to note here that for those nuclear materials and facilities with dual-use peaceful and military applications, the proliferation risk must be considered to be a major negative in any risk-benefit analyses and in comparative analyses of technologies for energy/electricity, science and medicine. That common-sense position is evidently not shared by ASNO, with DG ASNO indulging in rhetoric about proscribing all physics, chemistry, engineering etc.

There is no resolution to the problem highlighted by North Korea — having made full use of their right to access nuclear technologies for peaceful purposes, NPT signatory states can then withdraw from the regime and develop weapons. This is no less a problem for ASNO's apparent reluctance to acknowledge it.

DG ASNO states that: "Australia is active in the development of international action against any further withdrawals, for example, to establish that nuclear technology acquired during NPT membership continues to be bound by peaceful use obligations." Any such action along those lines is of course welcome, although of course it is difficult to envisage how a country willing to withdraw from NPT membership could be bound by other obligations.

Page 13 of DG ASNO's submission.

Membership of the Board of Governors of the IAEA is weighted in favour of countries with significant nuclear programs. The DG ASNO response only confirms that truth of the statement. DG ASNO 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. Again, 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."