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To: Joint Standing Committee on Treaties

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Submission to the Inquiry Into Nuclear Non-Proliferation And Disarmament

Albert Einstein's research was essential for the development of the nuclear bomb. Later in his life he fought vehemently against the production of nuclear weapons. A few months before Albert Einstein died, somebody asked him whether he was happy with his life or whether he would do things differently if given another opportunity. He replied:

"If I would be a young man again and had to decide how to make my living, I would not try to become a scientist or scholar or teacher. I would rather choose to be a plumber...". [The Reporter, November 18 1954] He died on April 18, 1955.

A) Australia's involvement in the nuclear weapons cycle, and how to turn the page

I understand from the Terms of Reference that the non-proliferation and disarmament treaties are to be made more "effective" and I fully support this.

However I suggest to investigate first our own involvement in the nuclear weapons cycle and to show to other countries that Australia's commitment is not hypocritical and purely tactical. To concede previous mistakes and then lead by good example is surely the most inspiring promotion of a worthwhile case (see above reference to Einstein).

1) Australia is the **second biggest supplier of uranium** to the world's nuclear industry.

This uranium is not just being used for nuclear power. Nuclear power in itself is uneconomical and can only be sustained

- by massive government subsidies
- by the public bearing an enormous risk to health and life. This risk can't be fully insured, and usually requires special legislation allowing for uninsured residual risks.
- by allowing the exposure of all future generations to radioactive contamination. The effects are genetic damage, weakened immune system, cancer and a shear endless number of other diseases.
- by accepting a 24-hour continuous supply of electricity (now spin-doctored into 'important' baseload supply) which turns half of the electricity production to waste.
- by accepting a supply of electricity highly vulnerable to sudden and massive breakdown, risking domino-effect breakdowns as happened last year in Germany.

For politicians to accept these enormous costs and shortcomings of nuclear power has usually other reasons, like one or more of the following:

- Nuclear power gives access to substantial quantities of plutonium which is required for nuclear weapons. Nuclear-weapons states may divert some of the plutonium for their nuclear weapons production, non-nuclear-weapons states may sideline some for a few secret bombs or stockpile some for future "needs"
- Nuclear power gives access to nuclear science and technology which in turn is required to build nuclear weapons.

Research reactors can give similar benefits though no substantial quantities of plutonium can be obtained. However, a lesser nuclear bomb built with enriched uranium instead of enriched plutonium is still possible.

Another matter to consider is the permanent contamination of Australia from uranium mining. Compared with other nuclear aspects (enrichment, fuel production, reactor, spent fuel, reprocessing, depleted uranium waste/weapons, high level waste, nuclear weapons production/testing, nuclear war...) uranium mine sites have the biggest burden of contamination for future generations, short of a global nuclear war. This little-known contamination hazard is mainly, but not exclusively, due to the massive quantities of uranium tailings (hundreds of millions of tonnes), the extremely long half-life of the parent isotope U-238 (4.5billion years) and the powdery consistency of the tailings.

Suggested approach to the supply of uranium by Australia

- That Australia immediately cease to supply uranium to countries which own or develop nuclear weapons
- That Australia gradually phase out uranium mining
 - by no longer allowing the supply of countries which build new nuclear power stations,
 - by radically increasing royalties and taxes for uranium mining which also helps with the various clean-up attempts to follow
 - by terminating uranium mining within 5 years.

The suggested measures might appear harsh on some countries which rely on nuclear power for much of their electricity production. However, a 5-year transition period appears viable considering the following indicative measures:

- An education campaign for energy conservation measures can be organised within 3 months, and could provide massive savings, just about immediately.
- The design and construction of wind farms takes about 2-3 years, and could be further accelerated.
- A massive program for solar hot water and solar electricity could be established within weeks, and cover most roofs within 2 years.
- A time frame of 5 years allows for design and construction of a much larger variety of renewable energy plants like geothermal, solar thermal concentrators (possibly already with storage) and hydro power. All of these have been shown to give excellent returns for the dollar invested.
- Power from oil and gas or even coal is environmentally still much better than nuclear and does not pose the nuclear weapons consequence. They are best used for stop-gap measures.

 Such a transition would not only make the world a safer place but also have great environmental and

Such a transition would not only make the world a safer place but also have great environmental and economic benefits for the countries pulling it through.

2) Australia, at its nuclear research reactor in **Lucas Heights**, has researched the development of the **nuclear bomb** - just in case "we" need it. Indeed, the technology for the first Lucas Heights reactor was traded with the British against their testing of nuclear weapons in Australia (at Maralinga, Emu Plains and Montebello). Numerous Australian service men and women as well as local Aborigines were sacrificed by these tests (some 13,000 of them died from radiation related diseases in the years to

follow). Many of them were ordered to stand nearby the explosions as if the effects hadn't been amply demonstrated at Hiroshima and Nagasaki. Large areas of Australia were contaminated, including Adelaide.

Suggested approach to Australia's nuclear weapons research

- That Australia lay open its past activities of nuclear weapons research, commit itself to end all related research, and inspire countries in similar situation to follow suit.
- That Australia close down the Lucas Heights reactor and publicly concede that other facilities (like cyclotrons) are more suitable for the production of medical isotopes. The budgetary savings from this step could be used for remediation of contaminated areas.
- That the Australian government finally concede the severe crimes committed on those servicemen /women and Aborigines and pay adequate compensation.
- 3) Australia, at its nuclear research reactor in Lucas Heights, has developed a new method of enrichment, based on laser, which will eventually allow the establishment of small and cheap enrichment facilities, ideal to allow each country their own plutonium or at least uranium enrichment.

Suggested approach to Australia's enrichment research

That Australia use all its remaining rights and influence (if there are any left) to stop further development of the technology.

4) Australia's use of depleted uranium weapons.

I have been told first hand by an Australian army sniper that they received their first DU ammunition already some 5 years ago. I am aware that Parliament has been told differently but the soldier appeared to be an honest and concerned person.

Depleted uranium weapons have been declared illegal by the UN already in 1996 and again in 1997.

Suggested approach to Australia's use of depleted uranium weapons

That Australia

- stop immediately the use of uranium weapons
- destroy them and store the waste as safe as humanly possible
- publish detailed maps of the areas of use and likely / possible points of impact
- provide qualified clean-up of contaminated areas
- provide medical and financial support to those affected
- accept fines and provide voluntary compensation to the regions and countries affected

B) The Non-Proliferation Treaty (NPT)

While the Nuclear Non-Proliferation Treaty has the primary intention to achieve the abolition of nuclear weapons, it has been abused by the nuclear weapons states to cement their nuclear weapons monopoly over the countries without nuclear weapons.

To achieve this, the nuclear weapons states have simply ignored their obligations under Article 6 of the Treaty which were meant to balance the commitment by the non-nuclear weapons states not to acquire nuclear weapons. Article VI of the Non-Proliferation Treaty (NPT) states:

"Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to the cessation of the nuclear arms race at an early date and to nuclear

disarmament, and on a treaty on general and complete disarmament under strict and effective international control."

John Burroughs from the Lawyers' Committee on Nuclear Policy features in his article "Good Faith: A Fundamental Principle of International Law" (News in Review, Final Edition, No. 9, 28 April – 9 May 2008, p. 5) a speech by Judge Mohammed Bedjaoui, former President of the International Court of Justice:

A major portion of Judge Bedjaoui's address was devoted to the legal significance of the addition of the phrase "good faith" to NPT Article VI, which requires each state party to "pursue in good faith negotiations on effective measures ... relating to nuclear disarmament". The phrase also figures in the Court's unanimous formulation of the obligation, based on NPT Article VI, "to pursue in good faith and bring to a conclusion negotiations on nuclear disarmament in all its aspects." He explained that general legal principles governing good-faith negotiation as applied in the NPT context include:

- * sustained upkeep of the negotiation; awareness of the interests of the other party; and a persevering quest for an acceptable compromise, with a willingness to contemplate modification of one's own position
- * refraining from acts incompatible with the object and purpose of the NPT; proscription of every initiative the effect of which would be to render impossible the conclusion of the contemplated disarmament treaty
- * respect for the integrity of the NPT; no selectivity regarding which provisions to implement
- * a general obligation of information and communication
- * prohibition of abuse of process such as fraud or deceit
- * prohibition of unjustified termination of negotiations

In related observations regarding "building confidence," Judge Bedjaoui stated: "Today more than ever, it is important to attribute a more decisive role to the UN in the coherent, democratic conduct of an integrated process of nuclear disarmament, with a realistic and reasonable schedule."

- end of quote -

How interesting to see in this context the threats against Iran which did not break the NPT while the threatening countries US, Israel (not even a signatory to the treaty) and UK are in continuous breach of the treaty.

To make the NPT viable and effective,

- a clear timetable to abolishment of nuclear weapons is required. The nuclear-weapons states would probably agree to such a timetable if there is sufficient public and political pressure.
- However, such a timetable does not necessarily require the agreement of the nuclear weapons states
 as long the supporting nations are willing to follow up with totally legal punitive measures for noncompliance like a ban on imports from offending countries.

- Let's eliminate nuclear weapons before they eliminate us -