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**Submission to the House of Representatives Committee looking into the
Australian Uranium Industry**

The civilian nuclear industry is poised for world-wide expansion. Rapidly growing demand for electricity, the uncertainty of natural gas supply and price, soaring prices for oil, concern for air pollution and the immense challenge of lowering greenhouse emissions, are all driving a fresh look at nuclear power. At the same time, fading memories of Three Mile Island and Chernobyl, is increasing confidence in the safety of new reactor design. So the prospect, after a long hiatus, of new nuclear power construction is real, with new interest stirring in countries throughout the world.

New construction is already under way in China with plans for new capacity also being dusted off elsewhere in East Asia. In that regard, moves here to scrap an Australian ban on uranium sales to China plus the US decision to lift restrictions on nuclear cooperation with India should facilitate the expansion of nuclear power in the world's fastest growing economies.

In itself none of this should be of concern to Australia. Nuclear power, properly harnessed, can be of immense value to mankind. To be sure, lingering worries about safety, and concerns about how to dispose of radioactive wastes, will continue to impact on the debate. The truth, however, is that fatal accidents are most rare in nuclear power stations while internationally accepted rules for handling nuclear materials are extraordinarily strict, and ruled by well grounded international conventions. At all events, the immediate issue for Australia, with our abundant coal resources, is not whether to opt for a civil nuclear program ourselves, but whether to take full advantage of the likely new market opportunities to sell more of our large uranium reserves abroad.

An important consideration underpinning Australian sales of uranium to other countries has been to ensure that these sales should not add to the proliferation risk. This has been a primary purpose of our bilateral safeguards agreements which in turn have often relied on IAEA safeguards for verification. It has also been a condition for Australian uranium sales that the purchaser be a state party in good standing under the Nuclear Non Proliferation Treaty or, in the case of Taiwan, acting as such. For question now is whether the anticipated substantial lift in the number of civil nuclear facilities to meet future global energy needs will also lead to heightened proliferation concerns. For of course along with all that will be more states with sensitive facilities, a greater number of such facilities, and enhanced numbers of personnel involved.

Acquisition of the most sensitive technologies is not actually disallowed under the NPT- as long as the intended purpose is peaceful. The trouble is that some of the technologies required to produce nuclear power are essentially the same as needed to produce the fissile core of a nuclear bomb. This applies particularly to uranium enrichment, where the object is to increase the concentration of U-235 in the fuel; and to the production of plutonium, contained in the spent fuel from ordinary reactors and which can be extracted

from the reprocessing operation for legitimate civilian use in mixed oxide (MOX) fuelstock for other reactors. Of course, the plutonium could also be used to make bombs, just as by boosting its U-235 content to 90 per cent or more, enriched uranium can be converted into weapons grade material pure and simple.

It follows that it is undesirable that every state with a nuclear research or nuclear energy program should establish its own enrichment and reprocessing facilities. The concern must be the greater when the country involved is a suspect nuclear wannabe like North Korea or Iran. But what to do when the NPT provides, in its Article IV, for the “inalienable right” of *all* states parties to develop and use nuclear energy for peaceful purposes?

To be sure, an important qualification is that the exercise of this right must be in conformity with the non-proliferation aims codified in Articles I and II. In other words, whatever the rights conferred under the treaty, these come only from meeting the overriding obligation not to pursue a nuclear weapons program. Within this broad framework, however, what is clear from both the negotiating record of the NPT, and through subsequent expression in NPT Review Conferences, is that many non nuclear weapons states regard their right to enjoy full access to the technologies for peaceful use as inviolate; and indeed as an essential part of the bargain in which they agreed to forego the acquisition of nuclear weapons in the first place.

So the question remains how to ensure that a rogue state does not circumvent its NPT obligations using the cover of the treaty to creep to the weapons threshold, then withdrawing from the treaty and embarking on a full-scale weapons program. That’s the dilemma currently confronting the international community in Iran, and the insistence of Iran on its right to acquire the technologies of all stages of the nuclear fuel cycle. To repeat, no fail safe system has yet been devised to ensure that activities ostensibly directed at producing nuclear power are not diverted to illegal weapons production. And it is a matter of record that western negotiators all reckon that Iran, while seeking to maintain a muddly ambiguity, will sooner or later go for the bomb.

What this experience with Iran, and with North Korea, actually highlights is a basic flaw in the NPT as it was negotiated thirty seven years ago, namely that any party should have the right to access the full nuclear technologies in return for its promise not to turn those skills to military use. In 1968, this arrangement seemed just fine. Back then, few countries had acquired the sophisticated technologies, and, frankly, few were then expected to try. But things have not turned out that way. Technologies for enriching uranium and extracting plutonium are now more widely understood and can be abused.

So why not renegotiate, update if you will, the treaty as allowed under its Article VIII? This has been thought about. But any careful balancing of the divergent interests in the NPT suggests that any attempt to renegotiate or reinterpret the treaty-especially if directed explicitly at curtailing nuclear access even for peaceful purposes- would be a fraught exercise. Therefore, a more pragmatic approach to amending or reinterpreting the treaty is needed.

IAEA Director General El Baradei has proposed that the proliferation concerns inherent in the right-to-peaceful-uses guarantee might be ameliorated were future fuel enrichment and extraction of plutonium from spent fuel to be undertaken exclusively under multilateral arrangements and control. An expert group he established last year to look into the matter generally took a cautious approach, at least to the more ambitious options. The group was more positive, however, about a more modest proposal, namely that the IAEA itself might take on additional multilateral functions including by becoming a multilateral guarantor of supply of nuclear materials and services.

The guarantee would need to be hedged with conditions, essentially that any state to be supplied would need to be a NPT party in good standing under the treaty. But provided the conditionality were met, the IAEA would stand as a guarantor of last resort, fulfilling a function more or less analogous to that the EU-3 has offered to Iran in regard to the supply of enriched fuel and feedstock in return for Iran abandoning domestic activity in this area.

Negotiating such an arrangement in the IAEA would not be easy. Nor would the existence of such multilateral alternative necessarily head off the committed proliferators; or country adamant about acquiring its own national capacity for reasons of pride or national sovereignty. Still, for a large body of states, a satisfactory multilateral option for guaranteeing reliable and adequate supplies of fuel and services might well prove preferable to an independent, but more problematic alternative. Interestingly, the proposal for a leading IAEA role in supply guarantees has received some backing from the UN Secretary General and, earlier, from the High Level Panel he had appointed to advise on global collective security.

None of this is to say that the IAEA-as-guarantor will be an idea quickly adopted. What is needed is a coalition of committed countries willing to press for further international investigation of the proposal; and, to begin with, someone to undertake the necessary catalytic role. Might Australia contemplate such a role? We certainly have the requisite (non proliferation) credentials, as well as respect and credibility within the IAEA. Australia too shares a substantial regional interest in any measure to curb proliferation. Beyond that, however, an Australia, anxious to boost uranium sales but still constrained by political concerns not to fuel the proliferation threat, must surely have a vested interest in any initiative designed to limit the spread of dangerous technologies. Viewed in the proper light an active role in encouraging further examination of the proposal might be seen as an opportunity rather than a burden, with the prospect for an outcome that could measurably advance the non proliferation cause.

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