

A Critique of the ASTEC Report

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On 9 November 1983, as the uranium debate within the ALP gained tempo, the Prime Minister Mr. Hawke requested a government advisory body, the Australian Science and Technology Council (ASTEC), to conduct an inquiry into some of the political and technical aspects of uranium mining. The subsequent report, titled *Australia's Role in the Nuclear Fuel Cycle* is sometimes referred to as the Slatyer Report after its chairman, Professor Ralph Slatyer of the Australian National University.

Immediately it was announced, the Slatyer inquiry was criticised on the basis of its terms of reference, the make-up of the ASTEC committee itself, the amount of time to be allowed for submissions and the overtly political timetabling of the whole inquiry.

The terms of reference given to ASTEC concerned waste disposal options, how to improve Australia's nuclear safeguards and how involvement in the nuclear fuel cycle could "further advance the cause of non-proliferation". The biased slant of these terms of reference was further accentuated in the national advertisements for submissions, by the comment "ASTEC will not be reviewing decisions already made and announced by the Government on the mining and export of uranium".

The 18 members of ASTEC, mostly Fraser government appointees, are primarily recruited from the heads of big business and senior university faculties. As such they form an elite whose conclusions, while purporting to be scientifically objective, are in fact laden with a highly selective world view and value base.

Submissions, solicited by ASTEC during the later part of November, allowed only 4-5 weeks' preparation by interested community groups, an almost impossible task in the pre-Christmas period. The report was released on 18 May 1984, conveniently six weeks before the ALP National Conference.

The response of the anti-nuclear movement to the inquiry was swift and effective. Many groups voiced their concern at these issues and declared they would boycott the inquiry. A very significant

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initiative was the establishment of an alternative inquiry chaired by Dr. Keith Suter. This community-based inquiry recently published its report titled *Australia and the Nuclear Choice* which arrived at essentially opposite conclusions to the Slatyer inquiry.

The most damaging case against the Slatyer inquiry, however, is derived from the content of the report itself. The ASTEC report has come under strong criticism especially from within the scientific community in Australia.

Suspicion about the inquiry was such that the report was mentioned only once during the ALP national conference debate on uranium. However, the framing of the conference resolutions on uranium was already a foregone conclusion.

The ALP's uranium policy, which allows the export of uranium from Nabarlek, Ranger and Roxby Downs, subject to "stringent safeguards", can best be understood by reference to the attitudes detailed in the ASTEC report.

The recently released ASTEC Report titled *Australia's Role in the Nuclear Fuel Cycle* provides a key to understanding the polarisation of arguments found in the current nuclear debate. That key is found by examining how it is possible for the recommendations of ASTEC to be in essential opposition to the conclusions of the Ranger Uranium Inquiry released in 1976.

ASTEC recommended "That exports of Australian uranium should not be limited as a matter of principle but should be permitted subject to stringent conditions of supply designed to strengthen the non-proliferation regime".

The Ranger Inquiry recommended "Policy respecting Australian uranium exports, for the time being at least, should be based on a full recognition of the hazards, dangers and problems of and associated with the production of nuclear energy, and should therefore seek to limit or restrict expansion of that production".

The ASTEC recommendation is obtained from a rather unconvincing discussion on energy issues which concluded that the controlled supply of Australian uranium would "contribute significantly to international energy security".

Part of the explanation for the inadequate discussion in the ASTEC Report can be attributed to its term of reference. The Ranger Inquiry had very much broader terms of reference and examined all the issues concerning the nuclear industry.

Vertical Proliferation

An essential reason for the differing conclusions rests on the perspective taken on nuclear proliferation and the effectiveness of the non-proliferation regime by ASTEC.

The non-proliferation treaty (NPT) which forms the centrepiece of the Non-Proliferation Regime (NPR) incorporates into its articles opposition to both the acquisition of nuclear weapons by non-weapons states (horizontal proliferation) and to the extension of the weapons capability of nuclear weapon states (vertical proliferation) insofar as it demands of them effective measures leading to nuclear disarmament. Although acknowledging that nuclear proliferation has two dimensions, the ASTEC Report follows the emphasis of the NPR by concentrating on the impact of uranium exports on issues related to horizontal proliferation. What effect the supply of uranium for civilian use has, directly or indirectly, on the military programs of nuclear weapons states receives hardly a mention in the ASTEC Report.

While the question of whether or not the nuclear arms race receives indirect support from the supply of Australian uranium remains open, there is evidence that Australian uranium developments profit from the arms race. The United States is the only country to which ASTEC points as being a likely and significant new

client for Australian uranium in the period 1984-1996, assuming export contracts are allowed. The economic viability of the proposed Roxby Downs mine will be dependent on sales of uranium to American utilities.

Although the USA has ample uranium of its own, ASTEC says "The United States and the Soviet Union have very much larger weapons programs, which may consume amounts of uranium comparable to those used in their civil nuclear programs".

If the arms race were to cease and a schedule of nuclear warhead dismantlement introduced, this statement of ASTEC indicates there could be a doubling of domestic uranium available in the USA for civilian use. The market for Australian uranium in the USA would collapse and with it the calculated viability of the Roxby Downs mine. For so long as the arms race continues there will be increased demand for Australian uranium.

Horizontal Proliferation and Latent Proliferation

The ASTEC conclusion that uranium exports should not be limited as a matter of principle is predicated on the Report's analysis of the Non-Proliferation Regime (NPR) from which it concludes that uranium exports would not contribute to the spread of nuclear weapons. The Ranger Inquiry's extensive examination of the NPR led it to quite the opposite conclusion and, while



arguing Australia must institute appropriate measures to support the regime, it recommended a very cautious approach to any uranium development.

The definition of horizontal nuclear proliferation adopted by ASTEC tells much about the philosophy the Report adopts to the functions of the NPR. ASTEC says "... an increase in the number of countries with such weapons or which have exploded nuclear devices (is) referred to as horizontal proliferation". In recent years, however, there has been a redefinition of proliferation in terms of the degree to which nuclear technological developments and access to fissile materials would enable a country to develop a nuclear explosive device on relatively short notice. This is referred to as latent proliferation. The definition used strongly influences judgments of the approach and effectiveness of measures adopted to stop proliferation.

Pressures Opposing the Regime

The NPR is a series of agreements and mechanisms established to influence the political motivations of countries who are signatories to the regime, and to manage the spread of sensitive nuclear technologies which could lead a country to nuclear weapons development. The primary arguments in the ASTEC Report for deeper involvement by Australia in the regime arise not from encouragement at its

success in preventing proliferation, but rather because of the considerably added pressures bearing against the NPR since the Ranger Inquiry eight years ago. ASTEC's support for the further involvement of Australia in the nuclear fuel cycle is a logical consequence of a management philosophy rather than a judgment on the viability of the NPR obtained from weighing the pressures which support or oppose the regime. The logic of the management approach dictates that the more pressure brought against the NPR the more support it would require in terms of Australia's nuclear developments. Thus, ASTEC says "Australian participation in stages of the nuclear fuel cycle in addition to uranium mining and milling should be permitted where such participation promotes and strengthens the non-proliferation regime.

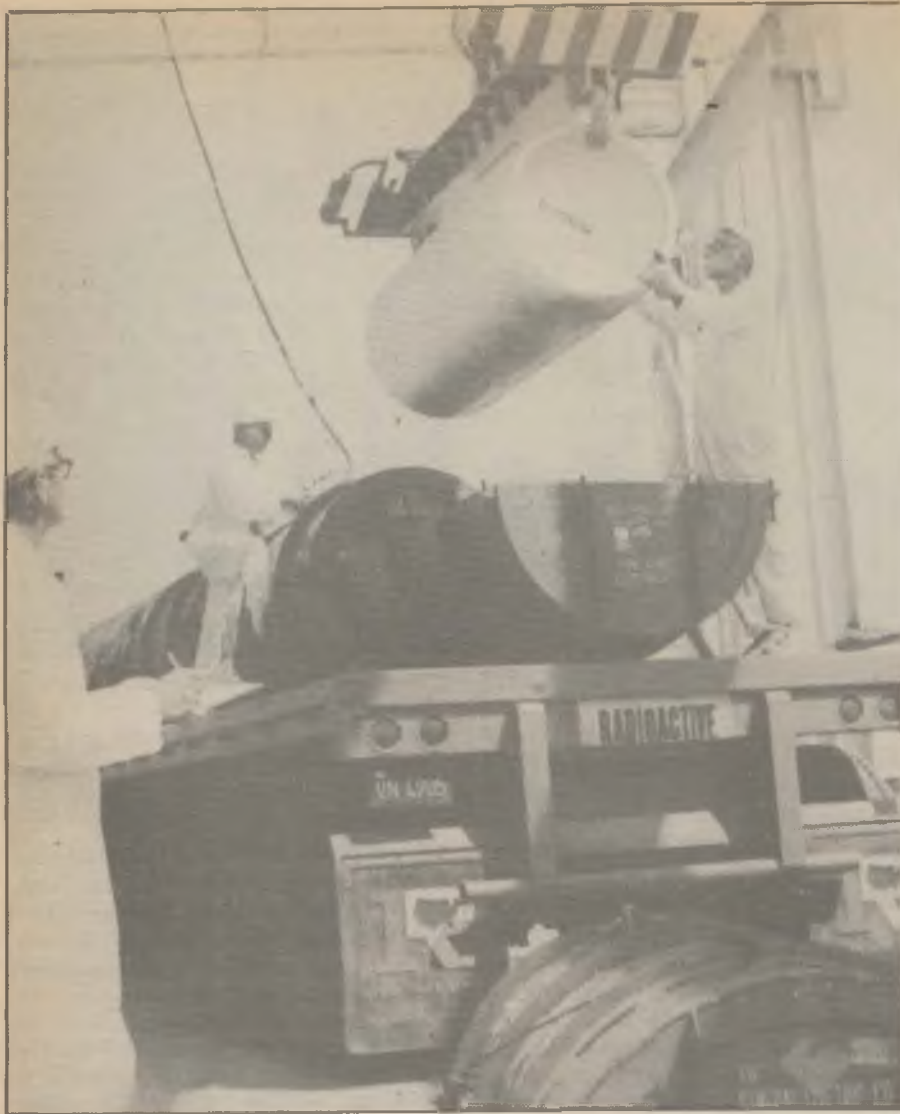
The following points summarise the pressures opposing the NPR referred to in the ASTEC Report:

- Increasing international tensions, ASTEC says "while a lack of security remains in the world, a universal political commitment to non-proliferation is difficult and perhaps impossible to achieve".
- Countries holding out from non-proliferation agreements. ASTEC says "there is a small group of so-called "threshold countries" which have the technological capacity to develop a weapons program and which have not made a political commitment to do so" (Examples are Argentina, Brazil, India, Israel, Pakistan and South Africa.)

- The further spread of sensitive nuclear technologies.
- Difficulties in verifying no nuclear weapons pledges in some NPT states.
- The existence of unsafeguarded nuclear facilities.
- Politicisation of the International Atomic Energy Agency (IAEA) and the threatened withdrawal of the USA.
- Stalemates in discussions on proposals to develop an international plutonium storage agreement.

The above is not an exhaustive list of what are essentially the secondary pressures against the NPR. The primary threat, however, even to the non-proliferation treaty itself continues to be the total lack of progress in nuclear disarmament. ASTEC says "This failure to implement the treaty provisions is a weakness in the Non-Proliferation Regime and has provided some countries outside the treaty with grounds for refusing to join. It has also provided ample opportunity for criticism of the treaty by some countries which are already members of the NPT, but which find its conditions onerous".

The diplomatic and other initiatives Australia can take to respond to these problems are independent of the direct supply of Australian uranium. The ASTEC Report simply reiterates the arguments of the Prime Minister, Mr Hawke that the supply of uranium gains and enhances credibility for Australian participation in the Non-Proliferation Regime. Yet even without further uranium exports,



A cylinder of uranium hexafluoride fuel — it was this, in gaseous form which recently escaped from the reactor at Lucas Heights in Sydney.

Australia will continue to have vested interests in the NPR because of the existence of Australian origin nuclear material in the world's nuclear fuel cycle and by our continued interest in the technology of disposal which was discussed in the ASTEC Report and is generally supported.

Pressures Supporting Non-Proliferation

By placing predominant emphasis on the political motivations and management barriers to proliferation, the ASTEC Report's recommendations for more Australian involvement in the nuclear fuel cycle downplay the economic and technical impetus this would give to latent proliferation.

In line with its restricted definition of horizontal proliferation, ASTEC

supports its conclusions by citing the success of the NPR within the context of the expansion of the nuclear industry over the past three decades. Yet ASTEC makes little assessment of the contribution to non-proliferation by the general downturn in nuclear power, setbacks to anticipated development of breeder reactors using plutonium and the weakness of nuclear industries, particularly in the third world, which restricts the financing of fuel cycle developments. Economic and technical difficulties in so-called threshold states have also slowed the development of weapons potential.

The threats to the medium or long term viability of the Non-Proliferation Regime are so severe that, while requiring the continuing support of Australia, we cannot afford to trade off the caution detailed in the Ranger

Uranium Inquiry by any expansion of the uranium mining industry. As well there are many other issues external to the analysis undertaken by ASTEC which argue for a very restrictive approach to uranium supply.

Pressures to Supply Uranium

An important conclusion of the Ranger Inquiry concerned the ability of the Commonwealth to "immediately terminate these (nuclear) activities, permanently, indefinitely, or for a specific period". Under its terms of reference, ASTEC failed to examine the domestic and international pressures which trap Australia into a forced supply situation. Each supply of uranium in turn induces pressure on Australia to continue supply, regardless of changes which occur within the general context of nuclear proliferation or the overall world situation. In particular, supply, once contracted for from any particular country, becomes virtually unstoppable except for reasons detailed in bilateral and non-proliferation agreements, regardless of other international considerations. Such difficulties in the current dispute with France over nuclear testing in the Pacific have put to rest the once popular "leverage" arguments of the Hawke government.

Conclusion

While the ASTEC Report does an excellent job of detailing the school of thought on the NPR advocated by the international nuclear fraternity, it fails to displace the pre-eminence of the findings of the Ranger Uranium Inquiry. Consensus demands that an Environmental Inquiry be undertaken on the Roxby Downs proposal, thus allowing investigation of the full range of nuclear issues which have arisen in the eight years since the Ranger Inquiry, with time allowed for the participation of the whole Australian community. This author believes the balance of argument comes down firmly on the side of the position which concludes "*leave uranium in the ground*".

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