



BRITISH HIGH COMMISSION
NEW DELHI

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M G Roberts Esq JNU FCO

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## INDIA NUCLEAR

1. Please refer to my letter of 18 November.

- 2. I raised what Bob Baer had told me with the American Political Counsellor, Herb Levin, last week. As a result, I was invited to a briefing at the US Embassy at which Baer (reading from files) gave me a precis of US information on India's nuclear intentions. Colin Partridge came with me. Baer was careful to preface his remarks with the statement that (despite his own scepticism) the US Embassy view was that India was not, at present, engaged on a weapon development programme.
- Baer confirmed that work on laser-induced uranium enrichment was making no progress, but this time did not suggest that it would soon be abandoned. He added that the Embassy had had reports that a lot of money had also been spent on research into nozzle enrichment techniques. However the main effort would be concentrated on the gas centrifuge method. Baer said that a new enrichment department was being created at BARC (with responsibility for work in this area being hived off from the chemical division). He had no doubt that, as a result of tests already conducted, the Indians had the requisite know-how.
- 4. The main focus of attention for signs that India might embark on a weapons programme remained unsafeguarded plutonium. In this connection Baer said that a scientist from BARC had said (it was not clear precisely to whom) that, at Trombay, the R5 was considered a plutonium producing as opposed to a research reactor. The scientist had given 3 reasons for the decision to go ahead with R5: first, the extreme simplicity of its design; second, the fact that it did not require enriched uranium; and third, the fact that its efficient burn was well tailored for producing plutonium (you will recall that Walter Marshall commented during his visit in April that R5 was admirable for producing weapons grade plutonium).
- 5. Baer said that the Indians had been trying to order a hot isostatic press from the US. This could be used to mould the plutonium components of an implosion device. The Indians said that they wanted the press for other reasons, but the Department of Energy was not inclined to take them at their word.



- 6. Baer also voiced some concern about activity over the past six months at the Ballistic Research Laboratory at Chandigarh. Work was being done on the HMX explosive, which Baer said was used for setting off implosion devices. There was no concrete indication that the intention was to test the explosive for eventual use with fissile material, but the work being done was consistent with a general polisy of keeping options open. The great compartmentalisation within the set-up at Chandigarh was a further source of suspicion. Finally, Baer noted that India had recently bought a number of computers from Honeywell which could also be used in connection with the testing of implosion devices.
- As suggested above, Baer stands at the suspicious end of US Embassy opinion on Imian nuclear intentions. Despite the plans for the fast breeder test reactor (which will, Baer says, use a mix of 30% plutonium and 70% uranium oxide enriched to 85%) and those for a larger scale fast breeder programme, and despite the fact that, so far as we know, no reprocessing of spent fuel containing plutonium is presently being carried out and that accumulation of plutonium bearing spent fuel is an unavoidable consequence of running any reactor, Baer clearly sees the accumulation of stocks of plutonium (whether in reprocessed form or present in spent fuel) as an indication that India is strongly inclined to pursue a weapons option. We suggested to Baer that it was a little rash to draw such firm conclusions from the evidence he had available and that it was doubtful that one could do more at this stage than conclude that the Indians were continuing to keep their options open as far as embarking on a nuclear weapons programme was concerned. The US Embassy view descirbed in paragraph 2 above suggests that the main body of opinion there is closer to this line of thinking than to Baer's.
- 8. May I leave it to you to decide about any further copying of this letter and that of 18 November.

G G Wetherell

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