

SECRET

Prime Minister 8
There seems no
doubt that the
Pakistanis intend to
go ahead.
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Mr. Powell

Indo/Pakistan Nuclear

Your letter of 14 April ^{att} to Len Appleyard. Mr Gandhi's account of the Pakistani attempt to smuggle out trigger devices from the US is broadly correct. Three Pakistani nationals were arrested in the US last year for trying to ship, illegally, 50 Krytrons - high speed switches which can be used to trigger nuclear explosive devices. They were indicted by a US Grand Jury on charges of making false statements to customs, violating export laws, and conspiracy. All were found guilty of minor charges, held for a short while, then released and deported. It was not until after they left the US that their connection with the Pakistani Atomic Energy Commission was established. What is not clear is why the US authorities did not assume such a connection was likely; the switches can be used for other purposes than triggering nuclear weapons, but only for pretty exotic ones such as high speed lasers.

2. The JIC has assessed that Pakistan is working towards a nuclear weapons capability and has the design for a nuclear explosive device. Pakistan probably has enough highly enriched uranium for two devices but would not have sufficient domestically produced fissile material for a device before 1986-87.

3. The number of Krytrons is not especially significant. The MOD experts reckon that to build two nuclear devices a large number of trigger mechanisms would be needed for tests and development work: 50 would not be unreasonable. High speed switches are a component in a trigger mechanism and the development of the whole mechanism involves a wide range of electrical and explosive testing. It would also be necessary to establish the reliability of the switches - which is, apparently, often a problem.

4. Other fast switches are available which do a similar job to Krytrons and the MOD believe that the Pakistanis already have some of these.

5. I am sending a copy of this minute to Len Appleyard.

17 April 1985

PERCY CRADOCK

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