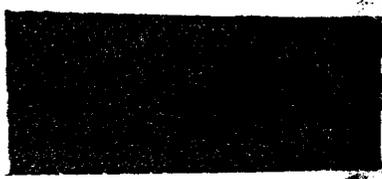


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Pakistan-China: Nuclear Cooperation

The Chinese have arranged for an extended visit of [REDACTED] team to Pakistan's Canadian-supplied KANUPP reactor at the Karachi Nuclear Power Plant. The Chinese are considering providing fuel and other support for this reactor to keep it on line but are limited in the type of support they can provide.

This visit would represent the first detailed investigation of a Western-built power reactor by Chinese scientists. The visit was made possible through a clause in the protocol on scientific and technical cooperation signed by the two countries in January. The protocol also includes a conditional agreement for China to provide the natural-uranium fuel for the KANUPP reactor. The proposed visit would suggest that some sort of schedule for Chinese assistance has been worked out for Pakistan's only operating power reactor.

Canada was providing all of the fuel, spare parts, and heavy water for this reactor but terminated its nuclear cooperation late last year when attempts to upgrade the safeguards on the Canadian-supplied reactor failed.

The reactor uses about 15 tons of natural uranium fuel per year. It also requires about 5 to 10 tons of heavy water annually to replace that lost through leakage, spillage, and evaporation. Pakistan has no domestic capability to produce fuel for the KANUPP reactor. It has signed an agreement with Niger for uranium, but that uranium must be fabricated into fuel rods by a third country. Heavy water and spare parts must also be imported.

China has limited experience in the operation of heavy water reactors but could provide the heavy water and fuel rods that Pakistan would require--with the latter calling for some research and development work

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beforehand. With Chinese assistance, Pakistan would have a better chance of keeping the KANUPP reactor operating. The Chinese, however, would not be able to provide sophisticated CANDU-type equipment, such as refueling machines, if the need arose. [REDACTED]

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