

The United States in recent years has assailed nuclear power as an energy option for Pakistan on the grounds that it is not economical for that country. However, the primary opposition has been to Pakistan's acquisition of a plutonium reprocessing facility — which could give Pakistan access to weapons-grade plutonium — rather than to acquisition of nuclear reactor technology. The history of the controversy over Pakistan's acquisition of a complete nuclear fuel cycle illuminates some of the shortcomings of United States efforts to build a strong non-proliferation regime.

US Nuclear Non-proliferation Policy: The Pakistan Controversy

CHARLES K. EBINGER*

THE ADVENT OF THE PAKISTANI NUCLEAR POWER PROGRAM

Given the current state of Pakistan-US relations over the nuclear issue, it is ironic that it was the United States that first introduced Pakistani leaders to the benefits of nuclear power. In 1954, the United States "Atoms for Peace" exhibit toured Pakistan, extolling the benefits that nuclear technology could provide mankind in the fields of energy, food, and medicine. Shortly thereafter, Pakistan established the Pakistan Atomic Energy Commission (PAEC) to conduct research on the application of nuclear technology to generating of electric power and meeting the nation's industrial and agricultural needs.¹

Pakistan sent its students abroad to the United States, France, Canada, and Great Britain to receive training in various nuclear disciplines, as did many other developing countries. Because many of these students did not return home upon the completion of their academic training, the Pakistani nuclear program gathered momentum very slowly at first.² In 1965, however, Mr. Zulfikar Ali Bhutto, then Foreign Minister of the Ayub Khan regime, concluded an agreement with Canada for Pakistan to purchase a 137 megawatt (MW) heavy water reactor; the reactor became operational in 1972.

Intense competition with India was one of the prime motivating forces

*Charles K. Ebinger holds the M.A.L.D. degree from The Fletcher School, and is currently vice president of Conant and Associates, Ltd., an energy consulting firm in Washington, D.C. This article is a revised version of a paper delivered before the Asia Society in New York last year. The author would like to thank the Society for funding his research in Pakistan during September and October 1978.

1. Shirin Tahir-Kheli, "Pakistan's Nuclear Option and U.S. Policy," *Orbis*, Vol. 22, No. 2 (Summer 1978), p. 358.

2. *Ibid.*

behind the Pakistani nuclear development program. As early as the mid-1960s, Pakistani leaders were deeply concerned about the prospect of India acquiring nuclear weapons. The Indian nuclear program was much more advanced than Pakistan's. Pakistani fears of India were heightened by the country's defeat in the 1965 war and growing indications that India was about to complete the construction, with British aid, of a nuclear reprocessing facility. By 1966, Pakistani apprehensions were so great that Mr. Bhutto made his oft-quoted remark that if India produced a bomb, Pakistan would have to make one even if the Pakistanis had to "eat grass" to do so.³ In 1967, India completed its reprocessing facility.

By the late 1960s, Pakistani fear of Indian nuclear intentions played a major role in Pakistan's foreign policy formulation. In the aftermath of the 1965 war, Pakistan moved closer to Iran and China as guarantors against Afghan and/or Indian aggression. Pakistani officials continually warned US diplomats that the thrust of India's nuclear program was to achieve increasingly high levels of nuclear technological know-how. Washington's failures to aid Pakistan in the 1965 Indo-Pakistani war and to take seriously Pakistan's concern over India's nuclear intentions dismayed Islamabad.⁴

The 1971 Indo-Pakistani War, and the separation of Pakistan's eastern wing into the newly-created state of Bangladesh, marks a watershed in relations between India and Pakistan in that it substantially altered the balance of power between them.⁵ Prior to 1971 Pakistani leaders had believed the country might have a chance of winning a war with India. Following the war, however, Pakistan embarked on a policy of building up its armed forces to be able to deter an Indian attack long enough to allow the international community to come to its assistance.⁶

The year 1971 was a difficult one for Pakistan and for the central Asian arena. In the aftermath of the British withdrawal from east of Suez, Iran emerged as the major military power in the Persian Gulf region. The rise of Iranian power accelerated the long-standing Iranian-Indian rivalry, and drew Pakistan and Iran into closer association as a result of Pakistan's conviction that India wanted to dominate the region from the Persian Gulf to the South China Sea.⁷

3. Zalmay Khalilzad, "India's Bomb and the Stability of South Asia," *Asian Affairs*, Vol. 5, No. 2, November/December 1977, p. 102.

4. Interviews Department of State, Washington, D.C., August 1978; Ministry of Foreign Affairs Islamabad, October 1978.

5. See Annex I. Khalilzad, "India's Bomb and the Stability of South Asia," p. 100-101. See also R.M. Burrell and A.J. Cottrell, *Iran, Afghanistan, Pakistan: Tensions and Dilemmas* (Beverly Hills, California: Sage Publications, 1974).

6. *Ibid.*, p. 102.

7. For an espousal of this view see *Pakistan Times*, September 6, 1975.

Indian interventions in Sri Lanka in 1971 and Sikkim in 1973, the signing of the 1971 Indo-Soviet Friendship Treaty, and the 1973 Afghan coup served to accentuate both Pakistan's perception of India as an expansionist power and Pakistan's feeling of growing diplomatic isolation. It should be noted, however, that the 1971 Indo-Pakistani War added new dimensions to Indian strategic and foreign policy concerns since India now had to deal with a new country on its borders — Bangladesh.

In spite of the lack of a formal pronouncement concerning any expansion in its nuclear power program, there are reasons to believe that by late 1971 Pakistan was considering the acquisition of nuclear weapons. In addition to continued Pakistani warnings to the United States about the real motivations behind the Indian nuclear program, and Pakistan's refusal to sign the Non-Proliferation Treaty in the absence of an Indian signature, there is some indication that Pakistan commenced discussions with a French firm, Saint Gobain Techniques Nouvelles (SGN), for the design of a pilot-scale reprocessing facility to be used for experimental research at the Pakistan Institute of Nuclear Science and Technology (PINSTECH).

Although there is not corroborative evidence to prove either that such discussions actually took place or that in 1973 a tentative contract for the design work was concluded pending the completion of financial arrangements, the author was told by sources in both Pakistan and the United States that this did occur.⁸ In this regard, it is interesting to note that when a team of nuclear personnel from the Oak Ridge National Laboratory visited Pakistan in April 1972, key officials of the PAEC expressed no interest in accelerating Pakistan's nuclear power program.⁹

In their report, the US team observed that Pakistan's nuclear power program was moving ahead slowly, with the next reactor (350 MW) not scheduled to come on stream until 1979. The report noted that the PAEC had not yet chosen the reactor location site or design type and had only tenuous plans for nuclear power development after 1979. Finally, it stated that no member of the PAEC organization expressed any interest in obtaining fuel reprocessing technology or other "full fuel cycle" facilities, i.e., uranium enrichment facilities.¹⁰

In spite of the views expressed to the Oak Ridge scientific team, the Pakistani nuclear power program forged ahead. In June 1973, Islamabad announced the approval of a plan for the nuclear desalinization of sea water and the expansion of the nuclear power program. While details remained elusive, in July 1973 the government announced that a 500 MW reactor would be built in the northern

8. Interviews Islamabad, September 1978, Washington, D.C., 1979.

9. See ORNL Document No. 72-5-50, "Report of Foreign Travel to Pakistan, April 24-May 1, 1972," May 25, 1972. Declassified from "Official Use Only" under Freedom for Information Act.

10. *Ibid.*

part of the country within two and one half years.¹¹ This plan proved to be extremely optimistic; budgetary allocations for the reactor (later changed to 600 MW) were not made until after the Indian nuclear detonation, and to date the CHASNUPP reactor has not been constructed.¹²

Although it is difficult to determine the exact date in 1973 when the discussions concerning Pakistan's purchase of a commercial scale reprocessing facility began between France and Pakistan, there is little doubt that the negotiations were launched prior to the October 1973 OPEC oil price increases.¹³

This is extremely important because it refutes Islamabad's claim that the reprocessing negotiations began as a result of the concern over secure access to nuclear fuel supplies which was generated by the energy crisis. This claim is also inconsistent with the PAEC's December 1973 announcement that "abundant quantities of uranium" had been found in south Punjab and three other locations in Pakistan.

Of equal importance is whether the French-Pakistani negotiations over a commercial scale reprocessing facility preceded the alleged negotiations for a pilot scale facility or whether the negotiations occurred in tandem. Assuming that the pilot scale reprocessing deals was consummated, Pakistan could have acquired the plant some time during 1975-1976. While there is still no evidence to suggest that such a transfer occurred, the continued silence on this issue by French, Pakistani, and US Government officials will remain puzzling until the relevant US Government documents are declassified.

In addition to seeking a reprocessing capability, the PAEC in 1973-74 moved to acquire a fuel fabrication facility from Canada to supply the KANUPP reactor in Karachi. Moreover, it appears that Pakistan also tried to purchase a heavy water production plant but without success.¹⁴

Nonetheless, despite these various initiatives, on the eve of the Indian nuclear explosion Pakistan's nuclear facilities remained primitive in comparison to India's advanced program. Pakistan possessed only the one 137 MW Canadian-supplied, natural uranium-fueled reactor in Karachi. In addition, Pakistan had a small US-supplied 5MW enriched uranium-fueled training reactor at PINSTECH,¹⁵ a nuclear materials center in Lahore where work was being conducted on new technological methods to extract uranium from sandstone deposits, and an agricultural research facility performing research on the effect of radiation on preservatives.

11. Zalmay Khalilzad, "Pakistan: The Making of a Nuclear Power," *Asian Survey*, Vol. XVI, No. 6, June 1976.

12. The author was told the Chashma reactor was unlikely to come on stream before 1987-88.

13. The author reached this conclusion after detailed discussions with numerous people in Pakistan and the United States.

14. *Asian Recorder*, February 5-16, 1974.

15. The enriched uranium was too lowly enriched to be suitable for a nuclear weapon.

THE IMPACT OF THE OIL CRISIS ON PAKISTAN'S NUCLEAR POLICY

The increase in world petroleum prices had a major adverse effect on Pakistan's balance of payments. Pakistan's oil import bill escalated from \$64.9 million in 1973 to over \$400 million in 1974. In the wake of the oil price hikes, Pakistan's energy and planning officials determined that the price of oil for power generation had become prohibitively high, and therefore began to look for alternatives.¹⁶

Prior to this, as part of Pakistan's overall energy policy formulation, the International Atomic Energy Agency had sent a team of experts to Pakistan in November 1972 to assess Pakistan's overall electric power generation requirements and the role that nuclear power should play in meeting them. The IAEA report was released on the eve of the OPEC oil price hikes in October 1973; it stated that, in the IAEA's opinion, Pakistan would have an appreciable nuclear power capacity requirement in the 1980s.¹⁷ With the changed energy environment brought about by the oil crisis, Pakistan asked the IAEA to update its assessment; the IAEA complied in 1975.¹⁸

The chief problem with the 1973 and 1975 IAEA assessments was that they were heavily biased in favor of increasing power generating capacity and did not adequately assess how reducing power transmission losses might reduce the need for additional generating capacity. Similarly, the IAEA reports continued to rely on historically high levels of electric power demand growth and did not adequately consider the impact of the worldwide recession on Pakistan's traditional rates of economic growth.

It is interesting to note that, while Pakistan's severe lack of fossil fuel resources and its shortage of hydro-electric resources in the southern portion of the country could easily have justified a sizable nuclear power program, Islamabad did not promote nuclear development to any significant degree until after the May 1974 Indian nuclear detonation.

PAKISTANI FOREIGN POLICY AND THE INDIAN NUCLEAR EXPLOSION

Despite some severe economic and political problems between 1971 and 1974, the Bhutto regime was able to restore a measure of confidence to Pakistan's political system. The February 1974 Islamic Summit had been an overwhelming success for Bhutto who gained the support of the Arab World for Pakistan's economic and political stability. While the Shah of Iran had re-

16. Pakistan Atomic Energy Commission, *Nuclear Power For Pakistan*, Islamabad, 1978, p. 2.

17. International Atomic Energy Agency, *Market Survey For Nuclear Power in Developing Countries*, Vienna, Austria, 1973.

18. International Atomic Energy Agency, *Nuclear Power Planning Study For Pakistan*, Vienna, Austria, 1975.

frained from attending the Summit, owing to the presence of Arafat and Qaddafi, relations between Iran and Pakistan remained good.

Nonetheless, despite this surface calm, there were new currents in the air in Indian-Iranian relations which were deeply disturbing to Pakistan. While the Indian-Iranian rivalry remained strong, relations between Tehran and New Delhi had changed dramatically as a result of the 1973-74 oil price increases. Iran provided India with over three-quarters of its oil; and with the escalation in world petroleum prices, New Delhi saw better relations with the Shah to be in its interest. As a result, Mrs. Gandhi paid a state visit to Iran in May 1974, during which she discussed exchanging nuclear technology with Iran in return for guaranteed supplies of Iranian oil.

The timing of Mrs. Gandhi's visit is interesting in that it coincided almost exactly with the Indian nuclear detonation. Despite a lack of direct evidence linking the two events, there can be little doubt that New Delhi wanted to impress the Shah with the degree of India's nuclear technological sophistication.¹⁹

While the Shah was shocked by the Indian explosion, he refrained from public criticism of it and agreed with Mrs. Gandhi that it would be in the interest of both countries to have a joint meeting between their respective atomic energy commissions. Nonetheless, although the Shah did not wish to antagonize New Delhi, he had no interest in relying on Indian expertise to advance the Iranian nuclear program. As a result, in June 1974, the Shah signed a \$5 billion agreement with France for five nuclear reactors. This French-Iranian nuclear deal was designed primarily to secure Iran's energy future in light of the high rate of oil reserve depletion prevailing at that time. However, it also demonstrated to the Indians that Iran would not allow India to be the only nuclear power in the region.

When added to the 1971 secession of East Pakistan, the Indian nuclear explosion of May 1974 shattered Pakistan's strategic position in the South Asian arena. Since India possessed Canberra bombers having a 1,500 mile radius of operation, every city in Pakistan was made vulnerable to a nuclear assault.²⁰

On May 19, 1974, Bhutto launched a major diplomatic campaign against India. Calling the explosion "a fateful development" and a "threat" to Pakistan's security, Bhutto stated that:

. . . a more grave and serious event . . . has not taken place in the history of Pakistan. The explosion has introduced a qualitative change in the situation between the two countries.²¹

In response to the Indian explosion, Bhutto appealed to the permanent

19. Interview Pakistan Institute of Strategic Studies, Islamabad, September 1978.

20. Khalilzad, "India's Bomb and the Stability of South Asia," p. 102.

21. *Ibid.*, pp. 102-103.

members of the United Nations Security Council for the creation of new international guarantees for non-nuclear states threatened by nations possessing nuclear weapons. In addition, Bhutto introduced a proposal for the United Nations to declare South Asia a nuclear-weapons-free zone, requested the United States and Great Britain to accelerate conventional arms shipments, and traveled to Peking and Moscow to solicit diplomatic support.

When these various initiatives proved unsuccessful, Bhutto became more militant. Although he insisted that Islamabad would never violate the international safeguards applying to Pakistan's nuclear power program, he stated that Pakistan's future nuclear planning would have to take the Indian nuclear threat into consideration.²²

Throughout the 1974-1975 period, Bhutto played a shrewd diplomatic game. While denying an interest in nuclear weapons, Bhutto also stated that as far back as the Ayub Khan regime he had favored undertaking a program of nuclear development on grounds of national security without reference to questions of economic viability.²³ Such statements by Bhutto, combined with the assertion by General Tikka Khan, former Chief of Staff of the Pakistan Army, that, if India developed a nuclear arsenal, "we [Pakistan] will have to beg or borrow to develop our own nuclear capability,"²⁴ generated serious alarm in Washington. Pakistan's continued refusal to sign the Non-Proliferation Treaty (NPT) contributed to Washington's concern.

Although there was clearly a large amount of theatrical rhetoric in many of Bhutto's statements, shortly after the Indian detonation there were ominous indications that Pakistan might be moving to develop a nuclear weapons capability. It appears that, by June 1974, Bhutto may have decided that no country was willing and/or able to guarantee Pakistan's security against a nuclear-armed India, and therefore initiated a nuclear weapons program, including plans for the indigenous development of a small-scale uranium enrichment plant.

On May 22, 1974, PAEC Chairman Munir Khan ignited the debate over Pakistan's nuclear intentions when he stated that in 1971 Bhutto had set "clear cut goals" for the PAEC which took "into account the interests of our country." Munir Khan went on to say "we took into account at that time the intentions of India, because they were quite clear."²⁵

In June, Prime Minister Bhutto assumed direct control of, and accelerated, the reprocessing plant negotiations with France and with Canada for the ac-

22. See Bhutto's remarks to Walter Schwartz, *London Observer*, December 1, 1974.

23. *Asian Recorder*, June 4-10, 1974, pp. 12034-12035.

24. *Kayhan International*, March 7, 1975.

25. Karachi Domestic Service, May 22, 1974, 0010 GMT, Foreign Broadcast Information Service, U.S. Department of Commerce.

quisition of a fuel fabrication facility. A more ominous event was the rumored June 1974 establishment of a highly secret nuclear research group within the PAEC²⁶ and the issuance of a government appeal to all Pakistani nuclear scientists working overseas to return home to conduct critical work for their country.²⁷

In August, Bhutto traveled to Peking, giving rise to rumors that he had asked the Chinese for a supply of plutonium, an offer which the Chinese apparently rejected out of hand.²⁸

While the factors delineated above clearly gave Washington cause for alarm, by late 1974 there was no real certainty as to whether Bhutto had made the decision to make nuclear weapons or whether he was moving only to acquire the capability to do so in a relatively short period of time if necessary.

By the end of 1974, Pakistan had consummated a contract with SGN for a detailed design of the commercial scale reprocessing facility, and had signed an agreement with Canada for a fuel fabrication plant, pending the conclusion of a new, more stringent, safeguards agreement.²⁹

The chief reason for Washington's growing suspicions of the motivations behind Pakistan's nuclear program was that Islamabad's drive for the acquisition of a complete nuclear fuel cycle occurred against the backdrop of no major expansionary plans in Pakistan's nuclear reactor program. As late as September 1974, Pakistan officially had firm plans for only one additional 600 MW reactor, and had commenced studies for a third reactor to be completed in the 1980's.³⁰ It was not until December 1974 (7 months after the Indian nuclear explosion and 14 months after the first OPEC oil price increases) that Pakistan announced a major expansion in its nuclear reactor program. According to the new program, Islamabad planned to build 4 or 5 new power plants in the 1980s and one plant every year during the 1990s.³¹ This plan was subsequently modified to the construction of twenty-four nuclear power plants by 2000.³²

In December 1974, Bhutto exacerbated US concerns when he stated:

. . . If sufficient conventional armaments are not supplied to Pakistan, it must concentrate all its energy on acquiring a nuclear capability. If Pakistan is not able to acquire weapons which can act as a deterrent, it

26. Interviews Department of State, May 1977.

27. This information was conveyed to the author by Pakistani scientists residing in the United States.

28. Interview National Security Council Staff, November 1978.

29. In the wake of the Indian nuclear test, Canadian nuclear export policy adopted much more strict safeguard requirements.

30. Interviews United States Embassy, Islamabad, September 1977.

31. Pakistan Government Press Information Department Press release, "Three Years of People's Government," No. 13, December 20, 1974, p. 2.

32. *The New York Times*, April 23, 1976.

must forego spending on conventional weapons and make a jump forward, concentrating all its energy on acquiring the nuclear capability.³³

There can be little doubt that such statements by Bhutto played a role in getting the United States to lift its arms embargo in 1975; nevertheless, Washington's continued refusal to supply heavy weapons to Pakistan probably accelerated Pakistan's drive to keep the nuclear weapons option open.

While its ties with the United States soured, Pakistan's relations with China improved dramatically in the wake of the Indian explosion. Peking agreed to give "full and complete support to Pakistan against a nuclear threat and nuclear blackmail."³⁴ During 1974 and 1975, Pakistan became the largest non-Communist recipient of Chinese military assistance, which included tanks, Mig 19s and Tu-16 medium range bombers.³⁵

UNITED STATES NUCLEAR POLICY WITH RESPECT TO PAKISTAN AFTER 1974

By late 1974 and early 1975, US-Pakistani nuclear relations had become even more complex as a result of the following factors:

- 1) US efforts to organize the exporters of nuclear technology through the London Suppliers Club;
- 2) The growing worldwide interest in nuclear technology as an alternative to high-priced imported petroleum supplies;
- 3) The issuance of the 1975 IAEA report on Pakistan's need for more nuclear reactors; and
- 4) Secretary of State Kissinger's lack of interest in the non-proliferation issue.

Because of US involvement in the formation of the London Suppliers Club in 1974 and its ongoing attempts to persuade France to join, the United States was reluctant to exert any strong diplomatic pressure to stop the consummation of the French-Pakistani reprocessing accord. The United States was much more alarmed by France's prospective deal with South Korea. There was hope that the generic issue of sensitive nuclear technology transfer could be dealt with in the London Suppliers Club, and hence obviate the necessity of unilateral pressure by the United States on France and/or Pakistan.

This did not turn out to be the case, however, and the United States failed to achieve a consensus on sensitive nuclear exports at both the Martinique Summit in December 1974 and at the April 1975 meeting of the Suppliers Club.

33. *Dawn*, December 20, 1974; *Pakistan Times*, February 7, 1975.

34. Khalilzad, "India's Bomb and the Stability of South Asia," p. 107.

35. *Le Monde*, October 22, 1975.

However, because the Administration by the spring of 1975 was more concerned with the proposed French sale to South Korea, and feared that double-barreled pressure on France might backfire and harden Paris' position, the Ford Administration did not vigorously voice its opposition to the Pakistani-French sale.³⁶

While it appeared that, in the absence of vigorous US opposition, the SGN-PAEC contract might have been implemented in early 1975, the agreement was delayed owing to French insistence that tough safeguard measures accompany the transfer. Not only did France insist on a trilateral agreement between Paris, Islamabad, and the IAEA, but Paris went one step further and demanded the inclusion of a provision prohibiting replication of any of the French reprocessing technology for a twenty-year period. (Even after twenty years, replication would be prohibited. However, after this time, Pakistani acquisition of additional reprocessing facilities would not automatically be presumed to have come from the French technology.) The agreement went on to say that if the additional facilities were deemed to have been derived even from part of the original technology transfer, then both France and the IAEA would consider Islamabad in violation of the safeguards accord.³⁷ Finally, Paris demanded that the safeguards agreement include tough inspection provisions.

In addition to pressure by France, Pakistan also encountered pressures from Canada to conclude a much more stringent safeguards agreement as a *quid pro quo* for Ottawa's continued nuclear assistance. The Canadians had been deeply affected by the Indian explosion because New Delhi had used loopholes in the Indian-Canadian safeguards agreement to conduct its nuclear explosion. The original Pakistani-Canadian safeguards agreement on the Karachi reactor had been negotiated prior to the Indian detonation and did not forbid "peaceful" nuclear explosions.

In November 1974, Ottawa demanded that the safeguards agreement be renegotiated. When Pakistan refused, Canada informed Islamabad in December 1974 that it would refuse to consummate any new fuel supply contract for the KANUPP reactor until new safeguards were agreed upon. Ottawa also stated that failure to negotiate would lead to a denial of spare parts, etc., and a "temporary delay of shipment of the fuel fabrication facility."³⁸

Throughout the period 1974-1976, Islamabad continued to resist Ottawa's demands, which led to a hardening of the Canadian negotiating position. Increasingly, Ottawa became concerned over the real motivations behind Pakistan's desire to acquire the SGN reprocessing facility, and by 1976 Ottawa

36. For background details on this period see Charles K. Ebinger, *The International Politics of Nuclear Energy*, Sage Publications, Washington Papers Series, Beverly Hills, California, 1978.

37. Interviews with PAEC officials and French Embassy personnel, Islamabad, September 1978.

38. Interview Canadian Embassy, Islamabad.

directly linked continued Canadian nuclear assistance with a cancellation of the reprocessing agreement.

On December 4, 1976, Ottawa presented Pakistan with an ultimatum and stated that Canada would curtail further nuclear cooperation unless Pakistan agreed to one of the following options:

- 1) Canada would provide fuel and other services for a period of ten years, subject to renewal, and permit the export of the fuel fabrication facility to Pakistan, if Islamabad would agree to revise the 1965 Canadian-Pakistani safeguards agreement to eliminate existing loopholes and would agree to forego purchase of the SGN reprocessing plant.
- 2) If Islamabad proceeded with the reprocessing purchase, but agreed to strengthen the KANUPP safeguards and give Canada a veto over the ultimate disposition of any spent material taken from KANUPP, whether reprocessed or not, Canada would agree to provide continued fuel and support services for KANUPP for a period of five years but would not approve delivery of the fuel fabrication facility.
- 3) If Islamabad would not forego the French purchase and would not give Canada the aforementioned veto, Ottawa would agree only to continue its nuclear cooperation for a period of two years, provided KANUPP safeguards were renegotiated to Ottawa's satisfaction.³⁹

When Pakistan refused to accept any of the three options, Canada terminated all nuclear assistance. To date, it has not been renewed.

THE GROWING INTEREST IN NUCLEAR POWER

While Pakistan was negotiating with France and refusing Canadian demands, there emerged throughout the world the view that expansion of nuclear power capacity could alleviate the global energy crisis, especially for countries, such as Pakistan, which possessed limited fossil fuel reserves.

As noted, while the planned development of Pakistan's nuclear power program remained minuscule until December 1974 (thus raising questions as to Pakistani motivations in acquiring a nuclear reprocessing facility), after that date, Pakistan embarked on a major nuclear power program.

The 1975-1976 budget allocated funds for the construction of a 600 MW light water reactor in the Punjab and the PAEC began drawing blueprints for an additional 23 reactors due to be constructed by the end of the century.⁴⁰ Even though western critics were quick to point out that the long lead times necessary for reactor construction and the sizable financial expenditure made it

39. Canadian Press Wire Service, December 10, 1976.

40. *Pakistan Times*, June 11, 1975.

almost impossible for Pakistan to meet its goals, the PAEC continued to push the program as the long-term solution to Pakistan's energy crisis.⁴¹ Although the IAEA differed somewhat with the PAEC's projections of when various new nuclear projects would be needed,⁴² the fact that the 1973 and 1975 IAEA reports on nuclear energy in Pakistan support Pakistan's need for nuclear energy was frequently alluded to by Pakistani officials in the PAEC.⁴³

THE FRENCH-PAKISTANI REPROCESSING DEAL:
ITS EFFECT ON US STRATEGIC INTERESTS

One of the major factors affecting US policy toward the French-Pakistani reprocessing deal was Dr. Kissinger's apparent lack of interest in nuclear proliferation matters in general and his hesitation to strain US-Pakistani relations which had been dramatically strengthened owing to the role Pakistan played in the US-Chinese rapprochement in 1971. Similarly, Secretary Kissinger distrusted India and perceived New Delhi as firmly in the Soviet sphere of influence. In Kissinger's view, to estrange a good ally such as Pakistan would only benefit the adversaries of the United States.⁴⁴ It was for this reason, in addition to those already outlined, that the United States did not vigorously oppose the PAEC-SGN deal during 1974 and 1975.

In spite of the US arms embargo to South Asia which continued through 1974, there was never any question that Secretary Kissinger saw Iran, Turkey and Pakistan as major elements in US strategic planning. Kissinger had not been displeased in 1973 when China, France, Iran, and Saudi Arabia agreed to supply Pakistan with aircraft, or in 1974 when Pakistan concluded a mutual defense agreement with the United Arab Emirates.⁴⁵

Despite Secretary Kissinger's early lack of interest in proliferation problems, by February 1976 Pakistan's continued recalcitrance in signing a safeguards accord with Canada seriously alarmed the non-proliferation specialists in the Ford Administration. By February 1976, the United States had been successful in forcing Seoul to cancel its reprocessing agreement with the French, and Washington began to put pressure on Islamabad.

The previous fall, the US had proposed that all reprocessing should be carried out in multinational facilities located around the globe.⁴⁶ While France

41. Interviews Planning Division, Islamabad, September 1978.

42. Zalmay Khalilzad, "Pakistan: The Making of a Nuclear Power," *Asian Survey*, Vol. XVI, No. 6, June 1976, p. 589.

43. IAEA, *Nuclear Power Planning Study for Pakistan*, pp. 5-6.

44. Interviews Department of State and National Security Council, October 1977.

45. *The Asian Recorder*, February 5-11, 1975, pp. 11840; see also Khalilzad, "Pakistan: The Making of a Nuclear Power," *op. cit.*, pp. 590-591.

46. Ebinger, p. 56.

and Germany had opposed this position, in February 1976 Washington tried to persuade Islamabad that there was no economic justification for Pakistan's decision to acquire an individual reprocessing facility and that Islamabad should postpone acquisition of such a facility until an international study could be conducted on the merits of national reprocessing facilities. In addition, the United States impressed upon Islamabad that rising anti-proliferation sentiments in the Congress might lead to a reduction and/or curtailment of all US nuclear cooperation with countries which had not signed the Non-Proliferation Treaty.⁴⁷

Pakistani reluctance to heed Washington's advice led to increased tension in US-Pakistani relations, resulting in the dispatch of a letter from President Ford to Prime Minister Bhutto requesting that Pakistan cancel the reprocessing contract with SGN.⁴⁸ While it has never been noted, President Ford's letter arrived on the same day as the announcement of the successful conclusion of the IAEA-French-Pakistani safeguards agreement.⁴⁹ In meeting the French demands, Bhutto had given in on every point and had gone a long way toward meeting the non-proliferation concerns of the nuclear specialists in the State Department.⁵⁰ Given this fact, Bhutto was incensed at the US demands and decided to make the issue a test case of US-Pakistani relations.

On March 30, 1976, in a letter widely reported in the Pakistani press, Bhutto, while noting the tough nature of the safeguards agreement with France, stated that Pakistan would proceed with the reprocessing agreement. Bhutto defended Pakistan's need for commercial nuclear power and castigated the United States for pressuring Pakistan on the reprocessing issue while continuing to supply enriched uranium to India. Bhutto astutely noted India's Treaty of Friendship with the Soviet Union and demanded to know why Pakistan, an ally of the United States, should be so assailed by the United States.

While informed observers realized that the US supply of non-weapons-grade enriched uranium to India was a far different issue from Pakistani acquisition of a reprocessing facility, such differences were not recognized by most non-nuclear Pakistani officials or the bulk of the Pakistani populace. In the view of most Pakistanis, the US supply of enriched uranium to India directly threatened Pakistan's national security.⁵¹

By June 1976, US-Pakistani nuclear relations became further clouded as a

47. Interviews Department of State, Washington, D.C., October 1977; Ministry of Foreign Affairs (Islamabad) September 1977; September 1978.

48. *Ibid.*

49. Interview Ministry of Foreign Affairs, Islamabad, September 1978.

50. Interviews Department of State, July 1977.

51. This point cannot be overemphasized. During trips to Pakistan in 1977 and 1978 the author became deeply concerned over the degree to which Pakistani officialdom and the Pakistani populace are frequently misinformed by the Pakistani press.

result of events in the United States Congress. With the passage of the Symington Amendment to the Foreign Military Assistance Act of 1961, the United States announced that it would reduce or eliminate most economic and military assistance to any country delivering or obtaining enrichment and/or reprocessing equipment, materials, and technology from another nation unless the country implemented full-scope IAEA safeguards and agreed to place these facilities under multilateral control.⁵²

Islamabad perceived the passage of the bill as a direct challenge to Pakistan's national sovereignty, and as a threat to Pakistan's national security. Although Islamabad knew that the curtailment of US assistance effected by the Symington Amendment would amount to about \$90 million per year, Islamabad refused to cancel the reprocessing deal under US pressure.

In August 1976, Secretary Kissinger, increasingly concerned about the deterioration of US-Pakistani relations, traveled to Pakistan to demonstrate American concern for the security, territorial integrity, and independence of Pakistan and to assess Pakistan's defense requirements. En route to Pakistan, Secretary Kissinger stopped in Iran, where he concluded an agreement to supply Iran with \$5 billion of weapons over the next five years.

In his meeting with Kissinger, Bhutto was quick to link the United States-Iranian security agreement with Pakistan's national security. Addressing Kissinger, Bhutto stated:

Your visit to Iran is really quintessential of your perceptions of the whole concept of security arrangements. That is why we are so delighted with the outcome of your visit to Iran.⁵³

Bhutto noted the importance that the United States accorded Iran in the Indian Ocean and stated that Pakistan regarded Iranian security to be inseparable from its own.⁵⁴ Addressing the nuclear issue, Bhutto stated "If there are small bangs, it does not matter. If there is a big bang, then [Washington] cannot consider Iran's security separate from Pakistan's."⁵⁵

While firm details of the Kissinger-Bhutto meeting remain classified, it is apparent from a wide range of conversations that Kissinger used several proposals to try to convince Bhutto to cancel the PAEC-SGN reprocessing contract. These included 1) a US offer to help Islamabad finance the acquisition of an \$800 million French light water reactor and/or a \$15 million French nuclear fuel fabrication plant, and 2) the resumption of Foreign Military Sales (FMS)

52. *Public Law 94-329, 90 Stat. 729*, Washington, D.C., Government Printing Office, 1976.

53. *Pakistan Times*, August 9, 1976. Quoted in Shirin Tahir-Khali, "Pakistan's Nuclear Option and U.S. Policy," p. 364.

54. *Ibid.*

55. *Ibid.*

credits to Pakistan, which Islamabad could use to purchase the 110 A-7 jets that Pakistan had attempted to purchase in the spring of 1976.⁵⁶ While it is debatable whether Kissinger could have delivered on these pledges, the point is moot since Pakistan rejected the Secretary's overtures.

THE US-FRENCH-PAKISTANI NUCLEAR CONFRONTATION AFTER AUGUST 1976

By the fall of 1976, several new developments were injected into the US-French-Pakistani nuclear controversy:

- 1) A growing concern by French President Giscard d'Estaing over the danger of "sensitive" nuclear technology transfers.
- 2) The October 28 announcement by the United States that it no longer viewed reprocessing "as a necessary and inevitable step in the nuclear fuel cycle" and that the United States would engage in reprocessing and plutonium recycling in the future "only if they are found to be consistent with our international objectives."⁵⁷
- 3) The passage in the United States of *The Nuclear Explosive Proliferation Control Act of 1976*, which established additional legal criteria for all US recipients of US nuclear technology, including a prohibition on foreign reprocessing of spent fuel derived from US materials and technology.
- 4) The December 1976 announcement by France that it would no longer conclude bilateral agreements for reprocessing plants.

By September 1976, French President Giscard d'Estaing had become increasingly concerned over the danger of sensitive nuclear technology transfers leading to nuclear weapons proliferation. Although Giscard would have welcomed a cancellation of the reprocessing contract by Pakistan, he was under intense pressure from both the French business community and French Premier Jacques Chirac to follow through with the transfer. With a strong election challenge coming in March 1978, Giscard could not afford to estrange Chirac. Nonetheless, Giscard moved to acquire greater influence over French nuclear policy.⁵⁸

Prime Minister Bhutto was keenly aware of the shift in French policy and moved to counter it by issuing numerous statements on the commercial benefits that France would derive from the reprocessing sale, as well as from

56. Interviews Departments of State, Commerce, and Defense, Export-Import Bank, Washington, D.C., July 1977; interviews Ministry of Foreign Affairs, Defense, and Pakistan Atomic Energy Commission, September 1977, September 1978.

57. U.S. Arms Control and Disarmament Agency, "Nuclear Policy," October 28, 1978, Mimeograph.

58. Ebinger, p. 60.

greater involvement in Pakistan's expanding nuclear market. In this regard, Bhutto was quick to point to the ambitious nuclear program of the PAEC as evidence of what sales might be in the offing.⁵⁹

The October US pronouncement on reprocessing and plutonium recycling had a major impact on both US-French and US-Pakistani nuclear relations. While there was ample justification for the policy, it could not have been more ill-timed. The US policy was an assault on the entire direction of French nuclear policy (i.e., development of the breeder reactor), and tended to strengthen Giscard's opponents in the French nuclear debate. In the wake of the US policy announcement, it became more difficult for Giscard to pressure Pakistan to cancel the reprocessing contract without giving the impression that the French President was "selling out" the French national interest under US pressure.⁶⁰

Similarly, the US announcement further exacerbated nuclear relations with Islamabad in that the US policy implied that, if commercial reprocessing was of dubious economic value for the most technologically advanced nuclear program, then there was no economic validity for a country having only one 137 MW commercial nuclear power reactor in operation to have such a facility.⁶¹

While the full implications of the passage of *The Nuclear Explosive Proliferation Control Act of 1976* lie outside this discussion, the implementation of the Act was important in that it further strained US-French nuclear relations at a time when close cooperation was essential to block the French sale.

Finally, the December 1976 announcement by France that it would no longer conclude bilateral agreements for reprocessing facilities was important in that it demonstrated to Islamabad that France was moving closer to the US position. Continued diplomatic pressure on France was essential in order to block consummation of the transfer.

THE CARTER ADMINISTRATION AND THE PAKISTAN NUCLEAR CONTROVERSY

In the closing months of 1976, France and the United States were slowly moving to a higher level of accord over nuclear policy. This growing understanding deteriorated rapidly after President Carter announced his nuclear energy program in April 1977.⁶²

In Paris' view, its December announcement that France would not sell reprocessing technology in the future had demonstrated a willingness to accom-

59. Interviews, Islamabad, September 1977.

60. Interviews French Embassy, Washington, D.C., July 1977, November 1978; French Embassy, Islamabad, September 1977.

61. Interviews PAEC, Islamabad, September 1977.

62. For details of the erosion in French-US nuclear policy see Ebinger, pp. 64-66.

moderate US nuclear proliferation concerns. Continued US opposition to the Pakistani sale by the new Carter Administration was viewed by both the French and Pakistanis as an intolerable infringement on their national sovereignty.⁶³

By January 1977, Washington was deeply concerned that President Giscard's behind-the-scenes efforts had failed, and that France was about to commence shipping some of the critical parts of the reprocessing facility to Islamabad.⁶⁴ Ironically, the Carter Administration was apparently unaware that its own nuclear policy had undermined Giscard's efforts.⁶⁵

In early 1977, US-Pakistani relations became more difficult as a result of an apparent decision by Washington to improve relations with India. Washington believed that by supporting Bhutto's initiatives for the creation of a South Asian Nuclear-Free Zone, and by making sure he realized that the acquisition of a reprocessing facility would lead to termination of all US military assistance, Bhutto would be induced to cancel the reprocessing facility. Washington believed it was no longer necessary to promise Bhutto delivery of A-7 Vought aircraft as a *quid pro quo* for cancelling the sale.

While the evidence remains sketchy, there is reason to believe that Bhutto's fears of French cancellation of the sale, combined with his perception of a pro-Indian tilt in Carter's foreign policy, led to his decision to build a much less expensive clandestine uranium enrichment facility.

It is interesting to note that while Bhutto made Pakistan's acquisition of the reprocessing facility a major issue in the March elections, he also stated, on the eve of the election results and after he had won his overwhelming victory, that cancellation of the reprocessing contract would not result in irreparable damage to the Pakistani economy, and expressed interest in reopening discussions with the United States.⁶⁶

However, with the outbreak of rioting following allegations of electoral fraud, Bhutto, in April, once again seized upon the reprocessing deal as a major issue. Bhutto stated that negotiations with the United States were impossible and embarked on a quixotic trip to Riyadh and Tripoli, where it was rumored he sought loans to finance his nuclear program and reprocessing facility. Although there is no corroborative evidence, some observers believe that Bhutto offered to provide Libya with nuclear weapons technology in exchange for such financial assistance.⁶⁷ On July 5, however, the Bhutto government was overthrown in a military coup.

63. Interviews French Embassy, Washington, D.C., July 1977, Islamabad, August 1977.

64. Interviews United States Embassy, Islamabad, August 1977.

65. Interview with high level official of Conseil Supérieure de Politique Nucleaire, November 1978.

66. Interview Department of State, July 1977.

67. Interview Pakistan Institute of Strategic Studies, Islamabad, September 1978.

The diplomatic battle over the reprocessing issue has continued between Islamabad and Washington in the post-Bhutto period. The rationale behind the Carter nuclear policy still perplexes the middle level officials of the PAEC who continue to believe that nuclear power is vital for Pakistan's long-term energy security. In this regard, it is important to note that while a top secret group in the PAEC may be involved in nuclear weapons research, the vast majority of the PAEC's personnel continues to work in the areas of peaceful nuclear energy research.

Although there was some evidence that the Zia regime was not really committed to going through with the SGN-PAEC agreement, there has been no indication that the government will cancel the agreement. During a recent trip to Pakistan, the author was told by officials of the PAEC and by the Federal Minister of Science and Technology that the deal would be consummated.⁶⁸ Similarly, the author was told by French officials that France remained willing to transfer a co-processing facility.⁶⁹

Rumors continued to abound throughout 1977-1979 that China and/or Libya were aiding or financing a nuclear weapons program for Pakistan. In April 1979, these were confirmed when the United States announced that it was cancelling its military assistance to Pakistan as a result of Pakistan's construction, with Libyan assistance, of a clandestine uranium enrichment facility.⁷⁰

CONCLUSION

It is extremely difficult to analyze Pakistani nuclear energy policy during the 1974-79 period. The reason for this is that fears for national security arising from the Indian explosion are so pervasive in Pakistani political debate that any work in the nuclear energy sector is inevitably suspect. This fact, coupled with statements emanating from the Pakistani leadership on the necessity for Pakistan to acquire a nuclear weapon, is bound to elicit a firm reaction from Washington.

It should be noted, however, that the role of nuclear energy — in both its peaceful and destructive applications — is viewed much differently in Islamabad than in Washington. In Pakistan, the successful development of commercial nuclear technology is perceived as a symbol of a nation's achieving "modernity." While it would be dangerous to place too much emphasis on this, it would be equally dangerous to dismiss this psychological component of the nuclear debate.

Similarly, while Pakistan's slow implementation of a major nuclear program

68. Interviews PAEC and Ministry of Science and Technology, September 1978.

69. Interview French Embassy, Islamabad, September 1978.

70. "Re-processing Leaves One Cold," *Pakistan Economist*, October 21, 1978, pp. 5-8.

in the wake of the embargo raises disturbing questions as to the motivations behind the program's enactment, it must not be forgotten that the IAEA supported a major expansion in the Pakistani nuclear program on the eve of the embargo and reiterated this support in 1975.

Furthermore, it must be remembered that, in spite of waning enthusiasm in the industrialized world for commercial nuclear power as an alternative to oil, the unique energy situation of Pakistan in 1976 (sizable fluctuations in seasonal electric generating capacity, the concentration in the north of hydroelectric capacity, the lack of power resources in the south, and the staggering costs of long-distance transmission lines) provided sufficient justification for the Pakistanis to opt for nuclear expansion.

Because the nuclear question became mixed with national security considerations, the Bhutto regime had to create a major commercial nuclear power program to justify Pakistan's long-term needs for a reprocessing facility. Although the IAEA's assessment of Pakistan's need for nuclear reactors was more modest than the PAEC's projections, the IAEA's projections in both 1973 and 1975 did, within the dictates of the plutonium recycling debate reigning at the time, justify Pakistan's future need for a reprocessing facility. It is for this reason that the IAEA Board of Governors approved the French-Pakistani reprocessing transfer and concluded the trilateral safeguards agreement.

Thus, while reasonable men can differ over whether Pakistan needs more electric power generation plants (nuclear or otherwise) or whether Pakistan would be better advised to use scarce resources to improve the transmission and distribution system, those advocating nuclear power expansion can do so for legitimate reasons.

Pakistan's concern over its national security and the role of nuclear weapons in assuring its defense requirements raises vexing problems. Islamabad's response to Washington's opposition to the reprocessing facility has largely centered on the argument that it is not the mere possession of sensitive nuclear technology which threatens international security, but rather a nation's perception that its security is so overwhelmingly threatened that it has no recourse but to acquire nuclear weapons. Pakistani officials emphasized to the author that, when such a perception exists, a country has no choice but to acquire such weapons even if, to quote Mr. Bhutto, the Pakistani population has to eat grass to do so.⁷¹ While sophisticated western-educated analysts might not understand the view, any US Government policy which fails to take into account the psychological dimension of Pakistan's perception of Indian intentions will end in failure.

No reasonable person would advocate that the proliferation of nuclear

71. Interviews, Islamabad, September 1978.

weapons enhances global security or US national interests; yet no nation, however small, can allow itself to be threatened and not move to meet the challenge. Pakistan has traditionally sought to insure its security by membership in regional alliances (CENTO, SEATO), which have received the backing of the United States, and by close relations with Iran and China. While the specifics of Pakistani foreign policy have changed over time, Pakistan has tried to insure that it has sound relations with at least one or more of the major powers.

In the two major crises that Pakistan has experienced in its short history — the 1965 and 1971 Wars — the United States has failed to prevent a catastrophic defeat for Pakistan. Surprisingly, very few Pakistanis are bitter over this fact. However, as a long-standing ally of the United States, Pakistan believes that Washington should re-examine the “entire context of Pakistan’s security options and recognize the threat Pakistan feels from its neighbors.”⁷² In Islamabad’s view, the United States should either make diplomatic initiatives to protect Pakistan from India and Afghanistan (Soviet Union), or at the very minimum, not stand in the way of a firm Pakistani response to these threats.⁷³

In Islamabad’s view, the Carter Administration has not only turned a deaf ear on Pakistani security concerns but has also made a conscious decision to “tilt” US policy toward India. President Carter’s rejection of Pakistan’s request for 110 Vought A-7 attack planes, the resumption of shipments of enriched uranium to India, the inclusion of India (and the exclusion of Pakistan) on the President’s December 1977-January 1978 world tour, the failure of the United States to step up military assistance to Pakistan in the wake of the May 1978 Afghanistan coup, and Pakistan’s deteriorating security situation in the wake of the Iranian crisis have all combined to convince Islamabad that it cannot count on the US commitment to Pakistan’s security.

The author was told by many Pakistani politicians, scholars, and military personnel that, in view of these events, Pakistan would have no choice in the absence of a change in US policy but to withdraw from CENTO and adopt a more neutral position vis-à-vis the Soviet Union.⁷⁴ From Islamabad’s perspective, the growth of Soviet influence in Afghanistan, combined with China’s inability in the event of major crisis to move its land forces to Pakistan, make it imperative to improve relations with Moscow. Only by doing so will Pakistan have any hope that Moscow will not give increased assistance to the secessionist movements in the Northwest Frontier Province (NWFP) and Baluchistan.

72. Tahir-Khali, “Pakistan’s Nuclear Option and U.S. Policy,” p. 366.

73. *Ibid.*

74. Interviews Islamabad, Peshawar, Lahore, Karachi, and Washington, September-October 1978.

The preceding analysis has attempted to clarify several implications of the past and present management of US nuclear non-proliferation policy with respect to Pakistan. Several conclusions have been suggested. Firstly, the lack of credibility of US security guarantees to Pakistan in the wake of the recent instability in the region has reduced the US ability to dissuade Pakistan from seeking security in nuclear weapons and has led to a serious erosion of US influence in the Central Asian theater. Secondly, US diplomacy vis-a-vis France, aimed at blocking the transfer of the reprocessing facility to Pakistan, not only exhibited an appalling ignorance of French domestic politics, but, in concert with US policies on plutonium recycling and the breeder reactor, also threatened to undermine all efforts to bring France into an effective non-proliferation regime. Thirdly, while circumstances surrounding Pakistan's moves toward acquiring a reprocessing facility raises disturbing trends for the security of South Asia, the evidence presented above demonstrates that at best US diplomacy was ill-timed and ill-conceived. Finally, the tilt of the Carter Administration toward India has endangered US security interests throughout the Central and South Asian theaters, provided support to those elements in Pakistan promoting the development of a nuclear weapons program, and eroded all efforts at achieving a global non-proliferation regime.